

May 25, 2012

The Honorable Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

Re: California Independent System Operator Corporation Docket No. ER12- -000

Tariff Amendment to Integrate Transmission Planning and Generator Interconnection Procedures (TPP-GIP tariff amendment)

Dear Secretary Bose:

The California Independent System Operator Corporation submits this amendment to its tariff to integrate its transmission planning and generator interconnection procedures ("TPP-GIP tariff amendment"). The integration of these procedures will allow the ISO to prospectively address the significant challenges that it currently faces with respect to efficiently determining transmission upgrades in the context of its generator interconnection procedures in light of California's ambitious Renewable Portfolio Standards. These standards have triggered a massive increase in the number of interconnection requests made to the ISO over the past several years. Because of the considerable scope of the transmission upgrades necessary to support these developments, the costs involved, and the short timeframe for constructing and deploying the necessary upgrades, the ISO's interconnection process has become increasingly less able to provide reasonable and timely outcomes for developers, ratepayers, and transmission owners.

The revisions to the ISO tariff contained in this filing result from an extensive stakeholder process to develop solutions to these challenges. Pursuant to this amendment, the primary mechanism to address these challenges will be to make the ISO's transmission planning process, in particular the provisions regarding transmission expansion in support of public policy requirements, the primary vehicle for identifying large-scale network upgrades necessary to interconnect and deliver to load the new generation needed to achieve California's Renewable Portfolio Standards. The ISO's

The ISO submits this filing pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d. Capitalized terms not otherwise defined herein have the meanings set forth in the ISO tariff.

proposal also contains a number of other revisions aimed at furthering the integration between the generator interconnection procedures and the transmission planning process. These integrated procedures will promote viable generation projects necessary to achieve California's renewable energy goals, provide ratepayers with protection against excessive transmission upgrade costs, and continue to ensure that all projects have fair and open access to the ISO controlled grid. Further, the integrated procedures are consistent with the requirements of the Commission's Order No. 2003 and other Commission precedent.

The ISO requests that the Commission accept these tariff changes effective sixty-one (61) days after the date of this filing, *i.e.*, July 25, 2012. This is an extremely critical date because the timing of the approval will drive the Phase I and Phase II study schedules for queue cluster 5 and 6 interconnection customers. A later date could delay the completion of these study cycles, which would, at a minimum, jeopardize the careful coordination between the generation interconnection and transmission planning processes. If the cluster 5 Phase I studies are substantially delayed, it is possible that the ISO would not be able to implement the new Generator Interconnection and Deliverability Allocation Procedures ("GIDAP") proposed in this filing until cluster 6, which would work to postpone the GIDAP's more effective cost responsibility incentives and perpetuate the requirement that transmission ratepayers fully reimburse interconnection customers in cash for all network upgrades needed by projects that achieve commercial operation, regardless of whether the interconnection costs align with benefits derived by the generation addition.

Executive Summary

Development of new generation to meet California's ambitious Renewables Portfolio Standard ("RPS") mandate has resulted in a massive volume of interconnection requests in the ISO's queue that is approximately four times the amount of new generation needed. It is widely anticipated that only a fraction of these generation projects will actually be built. Nevertheless, in order to interconnect the new generation needed to satisfy California's RPS goals, significant upgrades to California's transmission grid will be required. Given the scope and costs of these upgrades, it is essential that the ISO's process for planning and constructing these upgrades is optimally efficient and fair.

Currently there is no single process under the ISO tariff for identifying and approving transmission expansions in an efficient and comprehensive manner. The ISO's Transmission Planning Process ("TPP") and Generator Interconnection Procedures ("GIP") operate in parallel with very limited coordination between them. Each has its own study processes and assumptions, its own criteria for determining which transmission additions and upgrades should be built, and its own provisions for transmission project funding and cost allocation. Yet both processes have been vehicles for developing and ultimately constructing substantial amounts of grid infrastructure.

Having separate and parallel TPP and GIP tracks has been mostly workable in the context for which they were designed, where the TPP and GIP only needed to respond to relatively steady, predictable growth in load and modest incremental changes to the supply fleet. But these fundamentals have changed in recent years with California's adoption of the RPS mandates, which call for dramatic changes to the supply fleet within the decade and thus have triggered a wave of commercial activity to build renewable resources.

Because of the considerable scope of the network upgrades necessary to support these developments, the costs involved, and the short timeframe for constructing and deploying the network upgrades, the relatively granular process for identifying network upgrades set forth in the ISO's interconnection process has become increasingly less able to provide reasonable and timely outcomes for developers, ratepayers, transmission owners, and the load-serving entities required to procure renewable energy. Substantial changes to the ISO's process are therefore required in order to manage the huge volume of interconnection requests in the ISO's queue in a manner that relieves ratepayers of the risk of funding inefficient or underutilized network upgrades, while creating a rational process for viable proposed generating facilities to be developed and providing useful cost information for load-serving entities and their regulatory authorities.

To address these concerns, the ISO is proposing in this amendment changes to its interconnection procedures² that better integrate the ISO's interconnection process and the ISO's revised Transmission Planning Process, which the Commission accepted in 2010.³ One of the main features of the 2010 TPP revision that the instant proposal builds upon is the inclusion of a public policy-driven category of transmission additions and upgrades, to enable the TPP to identify and approve new transmission elements in response to state or federal policy mandates or requirements.

This amendment takes a logical next step by providing that the public policydriven Transmission Planning Process, rather than the more granular Generation Interconnection Procedures and agreements, will be used to identify and build largescale network upgrades needed to support the delivery of power from multiple new generators.⁴ Under this process, large-scale network upgrades will be identified in the

For reasons discussed below, the tariff changes contained in this filing will apply prospectively, *i.e.*, to the ISO's queue cluster 5 (for which the cluster application window closed on March 31, 2012) and subsequent queue clusters.

³ See California Independent System Operator Corp., 133 FERC ¶ 61,224 (2010).

As discussed below, this filing distinguishes between "Area Delivery Network Upgrades" or "ADNUs," which are network upgrades built to address constraints that hinder generator "deliverability" on an area-wide basis, and "Local Delivery Network Upgrades" or "LDNUs," which are network upgrades built to address constraints that hinder deliverability on a more local basis. Ratepayer-funded ADNUs will be identified in the Transmission Planning Process, while LDNUs will generally continue to be identified in the Interconnection Study process.

TPP, based on reasonable assumptions about the location and amount of new resources that will ultimately be developed in discrete geographic areas. These TPP network upgrades will add a certain amount of transmission capacity to the grid, which will then be available to meet the major network upgrade requirements of proposed new generating facilities in those geographic areas.

The ISO will determine the megawatt (MW) volume of new generation in each area whose power delivery needs ("deliverability") can be met by the additional grid capacity that the TPP network upgrades will provide. The ISO will then allocate the resulting MW volumes of "Transmission Plan Deliverability" or "TP Deliverability" to those proposed generating facilities in each area that are determined to be most viable based on a set of specified project development milestones. Entities proposing generating facilities that are not allocated TP Deliverability and still want to build their projects and obtain deliverability status would be responsible for funding their needed network upgrades without ultimately receiving cash reimbursement from ratepayers.

In addition to the above summary of the central design elements of the TPP-GIP tariff amendment, the TPP-GIP tariff amendment contains a number of improvements to the process for identifying and funding generator-driven transmission upgrades:

- establishes rules and procedures whereby new generation projects that utilize
 transmission approved under the TPP to meet their deliverability needs will have
 their required delivery network upgrades paid for by ratepayers, while preserving
 the option for customers who wish to obtain deliverability in excess of that
 provided by the transmission plan to construct and fund delivery network upgrades,
 though without cash ratepayer reimbursement;
- revises the interconnection process timeline to better align with the timeline for the TPP, and provides for crucial information flows between the TPP and the interconnection process;
- revises the interconnection study methodologies to produce meaningful results even when the queue volume is very large;
- establishes a plan-of-service reassessment process whereby network upgrade needs are re-evaluated when earlier-queued projects downsize or withdraw from the interconnection queue;
- provides an objective method for awarding the deliverability created by TPPapproved transmission to generation projects most likely to successfully achieve commercial operation, in areas of the grid where the volume of interconnection requests exceeds the capacity of transmission developed through the planning process; and

 institutes limits on cash reimbursement for the costs of network upgrades in certain circumstances, with the balance of any reimbursement being made in the form of financial transmission rights, in a manner similar to other independent system operators and regional transmission organizations ("ISOs/RTOs").

By making these changes, the TPP-GIP amendment will achieve the following important objectives:

- provide incentives for generation developers to choose interconnection points that are consistent with public policy-driven transmission development, and limit ratepayer responsibility for inefficient or underutilized network upgrades.
- produce more realistic study results and cost estimates with respect to network upgrades requirements and costs, thereby improving the chances that viable projects will achieve commercial operation.
- provide greater certainty for generation developers that the delivery network upgrades needed by their projects will be granted permits by the relevant state siting authority.
- provide greater transparency into transmission development, because the TPP is an open stakeholder process.
- provide increased opportunities for independent transmission developers to build and own transmission – both ratepayer-funded and non-ratepayer funded – that becomes part of the ISO controlled grid.⁵

In summary, the tariff revisions proposed herein are consistent with Commission precedent and strike an appropriate balance between promoting viable generation projects necessary to achieve the RPS, providing ratepayers with protection against excessive upgrade costs, and continuing to ensure that all projects have fair and open access to interconnect with the ISO controlled grid.

I. Background

This TIP-GIP tariff amendment culminates the ISO's most recent and comprehensive stakeholder initiative to integrate its processes for transmission planning and generator interconnection. Efforts to integrate those processes began in a more limited fashion with two stakeholder initiatives in 2010. Although those efforts were a good start, the ISO and stakeholders ultimately recognized that more far-reaching and

As explained later in this transmittal letter, a feature of this TPP-GIP tariff amendment is that construction of Area Delivery Network Upgrades that are identified in and approved as part the annual Transmission Planning Process will be open to competitive solicitation.

comprehensive integration efforts were needed to address challenges presented by recent events in California.

Over the past several years, the ISO has seen a dramatic increase in the number of requests to interconnect generating facilities to the ISO controlled grid. A primary driver of the increasing number of interconnection requests is the state of California's RPS, which requires load-serving entities in California to meet 33 percent of their customers' electricity demand on an annual basis from renewable resources by 2020. Development of generation to meet the RPS mandate has resulted in a volume of interconnection requests that is approximately four times the amount of new generation needed.

Given the ratio of proposed new generation to actual need, the industry conventional wisdom, shared alike by developers, potential power purchasers, state regulators, and the ISO, is that 75 percent or more of the proposed new capacity is not likely to materialize. Although, arguably, this makes for an attractively competitive market for buyers, the ISO's current interconnection procedures were not designed to manage this level of "excess" generation, and therefore, are not well equipped to provide project developers and potential buyers with the level of certainty they desire with regard to what network upgrades are needed, much less with regard to the costs and time it will take to complete the required network upgrades. This lack of certainty can create significant barriers to bilateral contracting and project financing.

This uncertainty is, in large part, due to the fact that the interconnection study process is designed to identify transmission upgrades needed for later-timed requests based on the assumption that prior interconnection requests will culminate in generating facilities that achieve commercial operation. But that assumption is not reliable in the current RPS context where the volume of interconnection requests is roughly four times

This increase in interconnection requests is well documented. See, e.g., California Independent System Operator Corp., 138 FERC ¶ 61,060, at P 2 (2012) ("In GIP Phase 1, CAISO sought to harmonize its large and small generator interconnection procedures to address inefficiencies due to an increasing volume of small generator interconnection requests"); California Independent System Operator Corp., 137 FERC ¶ 61,143, at P 3 (2011) ("CAISO stated that the targets for renewable resources have already led to a dramatic increase in requests to interconnect variable energy resources to the CAISO controlled grid"); California Independent System Operator Corp., 133 FERC ¶ 61,223, at P 80 (2010) ("[T]he rapid increase in interconnection requests in California and the growing backlog for serial studies lead us to conclude that delaying reform for several years does not make sense here").

California's RPS was established in 2002 under Senate Bill 1078 (Sher), Stats. 2002, ch. 516, accelerated in 2006 under Senate Bill 107, and expanded in 2011 under Senate Bill 2X signed into law by Governor Jerry Brown in April 2011. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020. An overview of California's RPS can be found on the California Energy Commission's website at http://www.energy.ca.gov/renewables/ and information on RPS procurement efforts is accessible on the website of the California Public Utilities Commission ("CPUC") at http://www.cpuc.ca.gov/PUC/energy/Renewables/index.htm.

the amount of new generation needed, meaning that three out of four interconnection requests will probably fail to be completed. At the same time, in setting up the interconnection studies it is impossible to know with high confidence which of the proposed generation projects will succeed and which ones will not. As a result, the interconnection network upgrades identified to serve those projects are rendered uncertain, and consequently later-timed interconnection requests are studied and further network upgrades are identified for these requests, based upon upgrade assumptions that will likely be invalid.

In addition, the limited coordination between transmission planning and generation interconnection processes, combined with the large volume of projects in the interconnection queue, casts doubt on whether the regulatory body responsible for issuing permits (primarily the CPUC) will ultimately approve or deny permits for the needed transmission upgrades. These uncertainties make it difficult for the generation developer to construct bids responding to load-serving entities' requests for offers for renewable energy. This uncertainty also makes it challenging for the load-serving entities and the CPUC to evaluate the "all-in" costs of those bids for power purchase contracts, which should reflect their associated transmission costs.

Another significant concern is that, under the ISO's current interconnection process, although interconnection customers initially fund their needed network upgrades, ratepayers ultimately provide cash reimbursement to them for all of these costs. This structure mutes developer incentives to interconnect at grid locations that make the most efficient use of transmission capacity, meaning that ratepayers could be required to fund excessive amounts of network upgrade costs to accommodate interconnections. This cost concern becomes particularly critical given the large volume of interconnection requests and the uncertainty as to which ones will culminate in operating generating facilities, which increases the risk that ratepayers will be required to fund inefficient or underutilized network upgrades.

In 2010 the ISO filed and the Commission approved substantial revisions to the ISO's TPP, most notably to establish provisions for identifying and approving a public policy-driven category of transmission additions and upgrades. Given the public policy mandate – the 33 percent RPS – that is driving the volume of interconnection requests, these TPP revisions offer a logical and effective means to address the interconnection process challenges described above by integrating and coordinating the ISO's interconnection procedures with the TPP.

As part of the TPP, the ISO considers the need for policy-driven infrastructure upgrades by developing, with the CPUC, other state agencies, and stakeholders, renewable generation scenarios based on tariff criteria, including commercial interest in various locations as evidenced by activity in the ISO queue and the status of power purchase agreements for the output of proposed projects in the queue. The ISO made significant progress toward alignment with the CPUC's procurement and permitting decision processes through a memorandum of understanding that the ISO and the

CPUC executed in May 2010 ("2010 MOU"), under which the CPUC now provides input on renewable resource development into the ISO's Transmission Planning Process. The ISO is now in the midst of the third TPP cycle using the revised planning process.

The 2010 MOU and TPP provisions have not, to date, been directly utilized to address the concerns discussed above regarding the generator interconnection process, which up to now has been used to identify transmission upgrades on a separate track. However, given the development of a robust process within the TPP for identifying and developing transmission upgrades based on public policy requirements, the ISO, with stakeholder input, determined that the process for determining transmission upgrades needed to integrate the substantial amounts of new generation coming online in California could be significantly improved by increasing the coordination between the TPP and the generator interconnection process. The main feature of this increased coordination involves making the TPP the primary vehicle for identifying large-scale transmission upgrades needed to realize California's RPS goals.

To design a balanced and effective approach for integrating generator interconnection into the TPP, the ISO and stakeholders conducted a robust stakeholder process over the past ten months in order to develop the tariff modifications contained in this filing.⁹ These stakeholder efforts included:

- three rounds of straw proposals, a draft final proposal, and a final proposal issued by the ISO;
- six stakeholder meetings and conference calls, and meetings of individual stakeholder work groups;
- input and a written opinion provided by the ISO's Market Surveillance Committee;¹⁰ and
- six opportunities for stakeholders to submit written comments on the proposals and draft tariff provisions developed in the stakeholder process.¹¹

The 2010 MOU is available on the ISO's website at http://www.caiso.com/2799/2799bf542ee60.pdf.

This stakeholder process is sometimes referred to as the "TPP-GIP Integration" initiative. The ISO webpage devoted to the stakeholder process can be accessed at http://www.caiso.com/informed/Pages/StakeholderProcesses/TransmissionPlanning_GeneratorInterconnectionIntegration.aspx. The ISO originally proposed to address some of the issues discussed in this filing in the GIP Phase 2 stakeholder initiative but subsequently determined that the scope of the issues meant that resolving them could only be done in the separate TPP-GIP Integration initiative.

The MSC Opinion, issued March 9, 2012, can be accessed on the ISO website at http://www.caiso.com/Documents/MSCFinalOpinion-Integration-TransmissionPlanning-GeneratorInterconnectionProcedures.pdf.

The ISO Board of Governors authorized the preparation and filing of this tariff amendment at its March 23, 2012 meeting.¹²

Overall, stakeholders have been very supportive of the objectives of this filing. After the extensive series of proposals, meetings, and discussions in the stakeholder process, most stakeholders recognize that the ISO's proposal provides a workable process for new generator interconnections and meaningful integration with the Transmission Planning Process. The components of this filing were generally supported by all industry segments of the stakeholders. In this regard, only two out of the ten parties from the generation and transmission development community voiced opposition to this proposal at the Board of Governor's meeting where it was approved, with the other eight parties in that community supporting the filing with qualifications. The other industry segments, consisting of participating TOs and load-serving entities, municipalities, and the CPUC staff, expressed similar support. Thus, this filing reflects a carefully crafted balance of multiple objectives and diverse stakeholder interests that were discussed and considered in the stakeholder process. The ISO discusses and responds to certain specific stakeholder concerns in Section III below.

II. Proposed Tariff Revisions

This section of the transmittal letter, along with supporting testimony, describes in detail the ISO's tariff revisions and process modifications that will be made to implement this proposal. Despite the many details and complexities that were identified and resolved as part of this stakeholder initiative, the overall framework of the proposed new generation interconnection process (known as the Generator Interconnection and Deliverability Allocation Procedures or "GIDAP") is logical and straightforward, and does not require significant departures from the existing processes.¹⁴

In particular, there are no proposed modifications to the TPP tariff provisions set forth in ISO Tariff Section 24. The "integration" of the GIP and the TPP simply means that the ISO's proposed GIDAP will utilize the annual TPP – primarily the resource

A list of key dates in the stakeholder process is provided in Attachment J to this filing.

Materials related to the ISO Governing Board's authorization to prepare and submit this filing are available on the ISO website at http://www.caiso.com/informed/Pages/BoardCommittees/BoardGovernorsMeetings.aspx. These materials include a memorandum requesting Board action that was provided on March 16, 2012 by Keith Casey, Vice President, Market and Infrastructure Development for the ISO. This memorandum is also provided in Attachment K to this filing.

See March 16 ISO Governing Board memorandum (Attachment K), at p. 5.

As discussed below, this filing also includes a new Large Generator Interconnection Agreement ("LGIA") and Small Generator Interconnection Agreement ("SGIA") to implement the GIDAP. In addition, this filing adds and revises defined terms in Appendix A to the ISO tariff.

portfolios developed for identifying public policy-driven transmission additions and upgrades and the resulting annual comprehensive transmission plan – to (1) provide for the large-area delivery network upgrade needs of target amounts of generating facilities in the interconnection queue, and (2) establish the amount of such generation whose needed delivery network upgrades will be funded by transmission ratepayers. This does not require any changes to the TPP. Under this proposal, if the deliverability needs of the proposed generation in a particular area exceed the amount provided through the TPP, some generating facilities may fund the necessary network upgrades and receive congestion revenue rights ("CRRs") in compensation for these upgrades. The changes needed for this element of the GIDAP are fully within the scope of the Generation Interconnection Procedures (and associated definitions and pro forma agreements), and do not require amendments to the TPP provisions set forth in ISO Tariff Section 24.

Moreover, the proposed GIDAP uses the same cluster study approach for interconnection requests, and preserves the Phase I and Phase II study structure, whereby customers receive cost estimates and are required to post financial security in three increments to stay in the interconnection queue and proceed to construction. These elements of the GIDAP are congruent to today's GIP. The only significant process modification to the existing GIP is a slightly longer time period for the entire Phase I and Phase II studies and generation interconnection agreement (GIA) negotiation process. This longer timeframe is necessary to accommodate one additional new step in the existing process – a reassessment study to update previously identified network upgrade requirements and a capacity allocation process that will take place following Phase 2 and is the cornerstone of the GIDAP proposal.

For ease of reference, the ISO has included a basic outline of the GIDAP proposal as Attachment A to provide a simple roadmap, the details of which will be discussed below.

A. Overview of Tariff Revisions and Consistency with Order No. 2003

The tariff revisions proposed in this filing are described below. To a significant extent, the provisions in the GIDAP, the LGIA, and the SGIA included in this filing track the corresponding provisions in the GIP, the LGIA contained in Appendix Z to the ISO tariff, and the SGIA contained in Appendix T to the ISO tariff. The discussion below primarily addresses how the provisions in the GIDAP, the LGIA, and the SGIA differ from those existing tariff provisions in order to permit implementation of the integrated approach to transmission planning and generator interconnection set forth in this filing. The tariff revisions contained in this filing include:

 New and modified defined terms and concepts to implement the integrated approach.

- Revisions in the GIDAP to the interconnection study processes set forth in the GIP, including the addition of a new "reassessment" interconnection study conducted between the Phase I and Phase II interconnection studies.
- A process for allocating TP Deliverability to interconnection customers in queue cluster 5 and subsequent queue clusters, following the completion of their Phase II studies.
- Provisions in the GIDAP that build upon the provisions regarding interconnection financial security contained in the GIP, in order to apply them to the integrated approach set forth in this filing.
- Provisions in the GIDAP to adapt existing provisions in the GIP regarding the obligation to construct network upgrades.
- Provisions in the GIDAP to implement compensation to interconnection customers for network upgrade costs in accordance with the integrated approach, including compensation in the form of congestion revenue rights rather than cash in certain circumstances.
- Application of the GIDAP to queue cluster 5 and subsequent queue clusters, but not to earlier-queued interconnection requests, in order to avoid disrupting steps the ISO is taking to address issues with interconnection requests that precede cluster 5 and the expectations of the associated interconnection customers.
- Revised cluster application windows and process timeline under the GIDAP.
- Miscellaneous tariff revisions.

This filing also includes two sets of prepared direct testimony that provide further discussion of the tariff revisions. The first set of testimony is provided by Songzhe Zhu, who is employed as a Lead Regional Transmission Engineer for the ISO. Dr. Zhu explains the interconnection study methodologies and other technical details regarding the GIDAP.¹⁵ The second set of testimony is provided by Deborah A. Le Vine, the Director of Interconnection Implementation for the ISO. Ms. Le Vine addresses matters related to the GIDAP regarding customer information flows, impacts on the generator interconnection agreements, queue management, and other interconnection customer-related issues.¹⁶

Dr. Zhu's testimony ("Zhu Testimony") is provided in Attachment B to this filing.

Ms. Le Vine's testimony ("Le Vine Testimony") is provided in Attachment C to this filing.

The enclosed tariff revisions accord with Commission precedent recognizing the benefits of integrating transmission planning and generator interconnection processes. In Order No. 2003, which standardized procedures and agreements for interconnecting large generating projects, the Commission explained that "the principal benefit of studying Interconnection Requests in clusters is that it allows the Transmission Provider to better coordinate Interconnection Requests with its overall transmission planning process, and, as a result, achieve greater efficiency in both the design of needed Network Upgrades and in the use of its planning resources."

Subsequently, the Commission found that the ISO's clustering approach to the study of interconnection requests would help to achieve these efficiencies. The Commission also urged other ISOs/RTOs to better integrate their transmission planning and generator interconnection processes. The tariff revisions contained in this filing are consistent with these Commission directives and will further the Commission's goal of achieving efficiencies in the design of needed network upgrades and the use of the ISO's planning resources.

The tariff revisions contained in this filing differ somewhat from the standardized pro forma interconnection procedures and agreement contained in Order No. 2003. However, the differences reflected in this TPP-GIP tariff amendment satisfy the Order No. 2003 "independent entity variation" standard applicable to ISOs/RTOs such as the California ISO. In addressing the issue of variations from the pro forma interconnection procedures and agreement set forth in Order No. 2003, the Commission stated that it would allow ISOs/RTOs "more flexibility to customize an LGIP and LGIA to meet their regional needs" with regard to terms, conditions, and pricing policies. ²⁰ ISOs/RTOs

Standardization of Generator Interconnection Agreements and Procedures, Order No. 2003, FERC Stats. & Regs. ¶ 31,146, at P 153 (2003) ("Order No. 2003"), order on reh'g, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 (2004) ("Order No. 2003-A"), order on reh'g, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005). The Commission reiterated this point in Paragraph 120 of Order No. 2003-A.

[&]quot;The Commission found that CAISO's proposal, which adopts a clustering approach to interconnection requests, 'will improve the efficiency of the CAISO's interconnection process, clear the CAISO's interconnection backlog, and allow the interconnection process to be better integrated into the CAISO's transmission planning process." *California Independent System Operator Corp.*, 126 FERC ¶ 61,191, at P 24 (2009) (quoting *California Independent System Operator Corp.*, 124 FERC ¶ 61,292, at P 2 (2008)).

Midwest Independent Transmission System Operator, Inc., 137 FERC ¶ 61,074, at P 199 (2011) ("The Commission strongly encourages Midwest ISO and its stakeholders to use the stakeholder process for the evaluation of reforms to transmission planning and cost allocation to more efficiently plan transmission expansions interconnecting and integrating new generation resources."); PJM Interconnection, L.L.C., 115 FERC ¶ 61,079, at P 87 (2006) ("Although we believe that forward procurement provides a much better solution to RTEP [Regional Transmission Expansion Plan] integration than the current generation interconnection procedures, which are subject to high levels of project withdrawals, generation and transmission planning processes must be better coordinated.").

were therefore permitted to submit interconnection procedures and agreements that meet this independent entity variation standard that is more flexible than the regional difference and "consistent with or superior to" standards.²¹ Further, tariff revisions under the independent entity variation standard must be shown to be just and reasonable and to accomplish the purposes of Order No. 2003.²²

The tariff revisions contained in this filing satisfy the independent entity variation standard set forth in Order No. 2003. In addition, as discussed below, the ISO's proposal to limit the circumstances under which interconnection customers may receive cash reimbursement for their network upgrade costs is also consistent with both directives in Order No. 2003 and tariff provisions that the Commission has approved for other ISOs/RTOs regarding compensation for network upgrades.²³

Although the proposed GIDAP does not have explicit intersection with the Commission's Order No. 1000 or the ISO's compliance with that Order, ²⁴ the ISO expects the GIDAP to further a key objective of Order No. 1000. Specifically, one result of the GIDAP will be to increase opportunities for independent transmission developers to build and own ratepayer-funded transmission. Under the GIDAP, public policy-driven transmission elements approved under the TPP, which are eligible to be included in the ISO's competitive solicitation under the provisions of the revised TPP, will offset the need for transmission to provide deliverability for new generating facilities that would otherwise be developed under the interconnection process – which is not open to competition from independent developers.

for variations from the *pro forma* provisions would be greater for independent entities such as ISOs/RTOs, because they are "less likely to act in an unduly discriminatory manner than is a market participant." *Id.* at P 827.

In Order No. 2006, which standardized procedures and agreements for interconnecting small generating projects, the Commission stated that the independent entity variation standard also applied to variations proposed by ISOs/RTOs to the standardized *pro forma* interconnection procedures and agreement set forth therein. *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, FERC Stats. & Regs. ¶ 31,180, at PP 548-49 (2005) ("Order No. 2006"), *order on reh'g*, Order No. 2006-A, FERC Stats & Regs. ¶ 31,196, *order on reh'g*, Order No. 2006-B, FERC Stats & Regs. ¶ 31,221 (2006).

Interconnection Queuing Practices, 122 FERC ¶ 61,252, at P 13 n.10 (2008).

The relevant provisions of Order No. 2003 and the Commission's approvals for other ISOs/RTOs are discussed in Section III.F.2 of this filing.

Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011) ("Order No. 1000"). The ISO's filing to comply with Order No. 1000 is not yet due and thus has not yet been submitted to the Commission. See id. at P 792.

B. New and Modified Defined Terms and Concepts

This TPP-GIP tariff amendment introduces the new and modified defined terms and concepts discussed below, which are also addressed in the testimony of Dr. Zhu.²⁵ These terms and concepts are necessary to implement the rest of the tariff provisions discussed in later sections of this filing.

1. TP Deliverability and Other Deliverability Concepts

New definition: *TP Deliverability.* The current ISO tariff includes defined terms that reflect the concept of deliverability, but the tariff does not currently include any definition of deliverability itself. In order to provide a means of allocating transmission deliverability to interconnection customers, the ISO proposes to add the new defined term *TP Deliverability* ("*TPD*") to the ISO tariff. TP Deliverability is defined as the capability, measured in MW, of the ISO controlled grid as modified by transmission upgrades and additions modeled or identified in the annual Transmission Plan to support the interconnection with full capacity deliverability status or partial capacity deliverability status of additional generating facilities in a specified geographic or electrical area of the ISO controlled grid.²⁶

A central principle of the GIDAP is that providing deliverability to interconnecting generating facilities is a necessary and appropriate objective of public policy-driven transmission planning in the context of California's RPS mandate. TP Deliverability and its allocation are the mechanisms by which the GIDAP addresses this objective in an efficient and equitable manner. In particular, the ISO anticipates that obtaining TP Deliverability will be necessary for many generation projects in queue cluster 5 and subsequent queue clusters due to the nature of the California resource adequacy program and its impact on bilateral contracting for energy and generating capacity.²⁷

New definitions: Full Capacity Deliverability Status, Partial Capacity

Deliverability Status, and Deliverability Status. Pursuant to existing provisions in the

²⁵ Zhu Testimony at 4-6.

This same definition is included in Appendix A to the ISO tariff, in Article 1 to the LGIA, and in Attachment 1 to the SGIA provided in this filing.

Generators must have deliverability in order to be eligible to sell capacity under the resource adequacy program. Moreover, because load-serving entities have requirements to procure sufficient resource adequacy capacity in addition to renewable energy, many projects need to be designated as resource adequacy resources in order to obtain power purchase agreements that will enable them to obtain project financing. Having power purchase agreements and securing project financing are both, in turn, required in order for the generating facilities to be built that will enable California load-serving entities to achieve the state's RPS mandate. Thus, the resource adequacy program plays a significant role in shaping the public policy requirements that will be addressed in transmission planning, through the vehicle of TP Deliverability.

ISO tariff, each generating facility that can provide deliverability to the ISO controlled grid may have one of three deliverability statuses: full capacity deliverability status, ²⁸ partial deliverability status, ²⁹ or energy-only deliverability status. ³⁰ In this filing, the ISO proposes to modify the definitions of the first two of these terms, and to add the generic term *Deliverability Status* to Appendix A to the ISO tariff, in order to refer to any of these three statuses.

Deliverability Status is defined as an attribute of a generating facility that is requested by an interconnection customer for the generating facility, assigned by the ISO to the generating facility through the GIP, GIDAP, or other process specified in the ISO tariff, and that affects the maximum net qualifying capacity³¹ to which the generating facility could be entitled.

The ISO is proposing changes to the definitions of *Full Capacity Deliverability Status* and *Partial Capacity Deliverability Status* because certain modifications are needed to align these definitions with how variable renewable resources are counted in the resource adequacy program. Because renewable resource deliverability is a key driver of the GIDAP proposal, these definition changes are a logical component of the overall process.

The current definition of *Full Capacity Deliverability Status* is discussed below.

Partial Deliverability Status is currently defined in Appendix A to the ISO tariff as the condition whereby a large generating facility interconnected with the ISO controlled grid can deliver an elected amount of output that is less than the full output of the large generating facility to the aggregate of load on the ISO controlled grid, consistent with the ISO's reliability criteria and procedures and the ISO on-peak deliverability assessment. In this TIP-GIP tariff amendment, the definition of Partial Deliverability Status has been modified to rename the term Partial Capacity Deliverability Status.

Energy-Only Deliverability Status is currently defined in Appendix A to the ISO tariff as a condition elected by an interconnection customer for a large generating facility interconnected with the ISO controlled grid the result of which is that the interconnection customer is responsible only for the costs of reliability network upgrades and is not responsible for the costs of delivery network upgrades, but the large generating facility will be deemed to have a net qualifying capacity of zero, and, therefore, cannot be considered to be a resource adequacy resource.

The purpose of net qualifying capacity is to refine the resource adequacy metric (the qualifying capacity) of a resource to account for its operational characteristics based upon generating facility attributes such as the technology (wind, solar photovoltaic, solar thermal, gas turbine) of the facility's prime mover, and to account for transmission congestion that would limit the ability of the resource to deliver the full output of its qualifying capacity to load (*i.e.*, "deliverability"). Appendix A to the ISO tariff defines *Net Qualifying Capacity* as the qualifying capacity reduced, as applicable, based on: (1) testing and verification; (2) application of performance criteria; and (3) deliverability restrictions. The net qualifying capacity determination shall be made by the ISO pursuant to the provisions of this ISO tariff and the applicable business practice manual. Appendix A currently defines *Qualifying Capacity* as the maximum capacity of a resource adequacy resource which is generally determined by criteria established by the CPUC or other applicable local regulatory authority.

The proposed changes to these two definitions are best explained by comparing the existing definitions in the ISO tariff and another related existing tariff provision. The current definition of full capacity deliverability status in Appendix A to the tariff is:

The condition whereby a Large Generating Facility interconnected with the CAISO Controlled Grid, under coincident CAISO Balancing Authority Area peak Demand and a variety of severely stressed system conditions, can deliver the Large Generating Facility's full output to the aggregate of Load on the CAISO Controlled Grid, consistent with the CAISO's Reliability Criteria and procedures and the CAISO On-Peak Deliverability Assessment.

The most problematic phrase in this definition is "full output." The crucial point is that "full output" is not the appropriate reference amount against which to measure the deliverability of a generating facility. Rather, deliverability must be measured against the facility's qualifying capacity. When the ISO determines a resource's net qualifying capacity each year in accordance with ISO Tariff Section 40.4.6.1, in order to set the maximum amount of resource adequacy capacity the facility can provide in the coming year, the starting point is the facility's qualifying capacity, which represents the upper boundary of the net qualifying capacity. This principle is expressed in ISO Tariff Section 40.4.6.1, which addresses the ISO's annual assessment of deliverability for facilities within the ISO balancing authority area, as follows:

To the extent the deliverability study shows that the Qualifying Capacity is not deliverable to the aggregate of Demand under the conditions studied, the Qualifying Capacity of the Resource Adequacy Resource will be reduced on a MW basis for the capacity that is undeliverable.

This tariff provision makes it clear that the facility's qualifying capacity – not its "full output" – is the appropriate reference amount against which to measure the facility's deliverability.

In the case of conventional, dispatchable thermal or hydro resources, a facility's qualifying capacity tends to be practically the same as its "full output" or its installed capacity, so any discrepancy between the current definition and the provisions regarding net qualifying capacity assessment had little, if any, impact in the context in which the original definition was adopted. But the situation is dramatically different in the case of variable renewable resources such as wind and solar photovoltaic, because the qualifying capacity of such a facility is determined by actual energy output – either historical or forecasted – during the high-load hours designated for qualifying capacity assessment, and typically such energy output is much less than the facility's full output or installed capacity. As a result, it is now necessary and appropriate to revise the definitions of full capacity deliverability status and partial capacity deliverability status to refer to the facility's qualifying capacity rather than its full output as the reference output level.

To be specific, the definitions proposed in this filing are:

Full Capacity Deliverability Status

Full Capacity Deliverability Status entitles a Generating Facility to a Net Qualifying Capacity amount that could be as large as its Qualifying Capacity and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO.

Partial Capacity Deliverability Status

Partial Capacity Deliverability Status entitles a Generating Facility to a Net Qualifying Capacity amount that cannot be larger than a specified fraction of its Qualifying Capacity, and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO. An Interconnection Customer requesting Partial Capacity Deliverability Status must specify the fraction of Full Capacity Deliverability Status it is seeking in its Interconnection Request.

According to these proposed definitions, when an interconnection customer requests full capacity deliverability status for a generating facility, the customer is requesting that the ISO assess its net qualifying capacity using its full qualifying capacity as the starting point. When a customer requests partial capacity deliverability status for a facility, the customer must specify in its interconnection request the precise fraction or percentage of full capacity deliverability status that it wants, which means that the ISO will assess its net qualifying capacity using that same fraction of its qualifying capacity as the starting point. In addition, the definitions are no longer applicable only to "large" generating facilities; they can apply to both large and small facilities.

New definition: *Qualifying Capacity.* This TIP-GIP tariff amendment revises the definition of *Qualifying Capacity* so that it is more accurate, and, as discussed above, removes the outmoded reference to qualifying capacity as the maximum capacity, a connotation suggesting full output of the resource. The connotation is now outmoded by virtue of the CPUC's adoption of rules for calculating qualifying capacity based on the historical or forecasted output of certain types of resources during high load "assessment hours," which, when applied, typically render the qualifying capacity for variable resources lower than their maximum output. Accordingly, Qualifying Capacity is redefined as the maximum resource adequacy capacity that a resource adequacy resource may be eligible to provide. The criteria and methodology for calculating the qualifying capacity of resources may be established by the CPUC or other applicable local regulatory authority and provided to the ISO. However, a resource's eligibility to provide resource adequacy capacity may be reduced below its qualifying capacity through the ISO's assessment of net qualifying capacity.

New definition: *Deliverability.* The ISO also proposes to modify Appendix A to its tariff to define *Deliverability* in a more generic sense than TP Deliverability.

Deliverability is defined as:

- (1) the annual net qualifying capacity of a generating facility, as verified through a deliverability assessment and measured in MW, which specifies the amount of resource adequacy capacity the generating facility is eligible to provide; or
- (2) the annual maximum import capability of an intertie, which specifies the amount of resource adequacy capacity, measured in MW, that load-serving entities collectively can procure from imports at that intertie to meet their resource adequacy requirements.³²

Thus, deliverability is defined with reference to both (1) generating facilities and (2) interties.

Modification to existing definition of *Deliverability Assessment*. In connection with the definition of deliverability with reference to generating facilities, the ISO also proposes to modify the Appendix A definition of *Deliverability Assessment* to describe it as an evaluation performed pursuant to the ISO on-peak deliverability assessment methodology posted on the ISO website to determine if a generating facility or a group of generating facilities could provide energy to the ISO controlled grid and be delivered to the aggregate of load on the ISO controlled grid at peak load, under a variety of severely stressed conditions.

2. Deliverability Constraints and Network Upgrades

The ISO's TPP identifies the need for large network upgrades that provide widespread or area-wide benefits by relieving deliverability constraints in areas of the ISO controlled grid specified for generation development through the TPP resource portfolios. But the TPP does not typically identify the need for smaller network upgrades that provide local benefits by relieving deliverability constraints in those locations, because they tend to be specific to the locations of individual generation projects or small groups of generation projects located very close together electrically and not studied in the transmission planning process.

Such local network upgrades are typically identified in the interconnection study process. However, the current ISO tariff does not include any defined terms that specifically distinguish between *area-wide* and *local* network upgrades. Instead, the

ISO Tariff Section 40.4.6.2 governs the ISO's annual calculation and allocation to load-serving entities of maximum import capability at the interties.

current tariff contains the defined term *Delivery Network Upgrades*, which covers both area-wide and local network upgrades that relieve transmission constraints.³³

New types and definitions of Delivery Network Upgrades: *Area Delivery Network Upgrades* and *Local Delivery Network Upgrades*. In this filing, the ISO proposes to add definitions to the ISO tariff to distinguish between two types of delivery network upgrades: *Area Delivery Network Upgrades* (*ADNUs*) and *Local Delivery Network Upgrades* (*LDNUs*).

The GIDAP, the LGIA, and the SGIA contained in this filing include numerous provisions that make distinctions between the identification and treatment of ADNUs and LDNUs.³⁴ For example, as discussed below, *Option (A) Generating Facilities* are defined as those that require TP Deliverability and thus are not responsible for paying the costs of LDNUs or ADNUs, yet will be required to post reimbursable financial security for LDNUs but not for ADNUs,³⁵ while *Option (B) Generating Facilities* do not require TP Deliverability and thus are responsible for paying the costs of both LDNUs and ADNUs.

The terms *ADNU* and *LDNU* are defined by reference to the types of deliverability constraints they are intended to address. Specifically, an ADNU is defined as a transmission upgrade or addition identified by the ISO to relieve an area deliverability constraint, ³⁶ and an LDNU is defined as a transmission upgrade or addition identified by the ISO in the GIDAP interconnection study process to relieve a local deliverability constraint. The logic for this structure of definitions, *i.e.*, starting with the constraints and then defining the upgrades by reference to the constraints they relieve, is explained below and in the testimony of Dr. Zhu in the context of the GIDAP study process.³⁷

Currently, *Delivery Network Upgrades* are defined in Appendix A to the ISO tariff as transmission facilities at or beyond the point of interconnection, other than reliability network upgrades, identified in the interconnection studies to relieve transmission constraints on the ISO controlled grid. *Transmission Constraints* are defined in Appendix A as physical and operational limits on the transfer of electric power through transmission facilities.

Under the GIDAP, the LGIA, and the SGIA, references to references to delivery network upgrades or DNUs, when used without specifying whether the DNUs are ADNUs or LDNUs, mean both ADNUs and LDNUs.

Option (A) projects will be required to post financial security for LDNUs, but will be fully reimbursed after achieving commercial operation.

Examples of delivery network upgrade projects currently under development that could be considered to be ADNU if identified under the tariff revisions contained in this filing are the Tehachapi Renewable Transmission Project, Sunrise Powerlink, and Colorado River-Devers-Valley transmission projects.

³⁷ Zhu Testimony at 7-10.

The ISO proposes to define an *Area Deliverability Constraint* as a transmission system operating limit that would constrain the deliverability of a substantial number of generators if the ISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the ISO controlled grid in a total amount that is greater than the TP Deliverability for those areas. The definition also states that an area deliverability constraint may be a transmission system operating limit that constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable Transmission Planning Process portfolio for the entire portfolio area, or a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified area deliverability constraint.

A Local Deliverability Constraint is defined as a transmission system operating limit modeled in the GIDAP study process that would be exceeded if the ISO were to assign full capacity or partial capacity deliverability status to one or more additional generating facilities interconnecting to the ISO controlled grid in a specific local area, and that is not an area deliverability constraint.³⁸

The GIDAP, the LGIA, and the SGIA contained in this filing also include numerous provisions that make distinctions between the treatment of ADNUs and LDNUs and the treatment of Reliability Network Upgrades ("RNUs"). The ISO proposes to retain the existing definition of RNUs, with the minor change that the definition of that term in Appendix A to the ISO tariff has been modified to replace the narrower phrase "thermal overloads" with the more inclusive "system operating limits." This modification is necessary to make the definition of RNUs consistent with actual operating requirements the ISO must address in identifying RNUs, and aligns with the definitions of ADNUs and LDNUs, which reference system operating limits.

An interconnecting generating facility may require delivery network upgrades only if the interconnection customer wants the generating facility to be fully or partially deliverable in order to be eligible to provide resource adequacy capacity to meet the resource adequacy requirements of one or more load-serving entities. In contrast, any interconnecting generating facility may require RNUs to ensure reliable grid operation once the facility is operational. As explained later in this filing, under the GIDAP proposal the TPP will typically identify and approve new transmission that will offset

These same definitions are included in Appendix A to the ISO tariff, in Article 1 to the LGIA, and in Attachment 1 to the SGIA.

RNUs are identified through interconnection studies, not the Transmission Planning Process, and are specific to generation project locations. RNUs are distinct from LDNUs (and also ADNUs) in that RNUs are needed to address issues that cannot be dealt with through the ISO's congestion management process, whereas LDNUs and ADNUs are required to reduce congestion to provide deliverability to a generation project.

This same definition is included in Article 1 to the LGIA and in Attachment 1 to the SGIA.

needs for ADNUs – *i.e.*, network upgrades that can provide deliverability for several generating facilities comprising a significant amount of new generating capacity within an electrical grid study area. TPP-approved transmission will most likely not offset needs for interconnection-driven RNU or LDNU, both of which tend to be local and specific to each generating facility. This filing will explain how the GIDAP addresses all three categories of network upgrades (ADNUs, LDNUs, and RNUs) needed by interconnecting generating facilities.

3. Options (A) and (B) for Generating Facilities Seeking Full Capacity or Partial Capacity Deliverability Status

In the GIDAP, the ISO proposes to require each interconnection customer that makes an interconnection request for either full capacity deliverability status or partial capacity deliverability status for a generating facility to choose between two options. Interconnection customers will make this choice between Phase I and Phase II of the interconnection study process, and will be subject to different cost responsibility for delivery network upgrades depending on which option they choose. However, the choice between the options is solely the interconnection customer's, and the ISO will treat Option (A) and Option (B) generating facilities in a non-discriminatory manner. In particular, both Option (A) and Option (B) projects will be eligible for allocation of TP Deliverability, as described below.

Option (A). The first option is called *Option (A)*, which means that the generating facility requires TP Deliverability to be able to continue to commercial operation. If the interconnection customer selects Option (A), then the interconnection customer will be required to make an initial posting of interconnection financial security under the GIDAP for the cost responsibility assigned to it in the Phase I interconnection study for RNUs and LDNUs. However, an Option (A) generating facility will not be assigned any cost responsibility for ADNUs, and thus will not have to post any interconnection financial security for ADNUs.

An Option (A) generating facility is not assigned cost responsibility for ADNUs because the premise behind an interconnection customer's choice of Option (A) for a project is that in order to be commercially viable the facility must receive enough TP Deliverability to match the facility's desired Deliverability Status. Therefore, either the facility will be allocated TP Deliverability that meets its requirements for ADNUs, or the facility will convert to energy-only or withdraw from the queue. In any case, the facility will not be responsible for funding ADNUs.

⁴¹ GIDAP Section 7.2.

This definition in the GIDAP is cross-referenced in the definition of an *Option (A) Interconnection Customer* contained in Article 1 to the LGIA and in Attachment 1 to the SGIA.

Option (B). The second option is called *Option (B)*, which means that the interconnection customer is willing and able to assume cost responsibility for delivery network upgrades (both ADNUs and LDNUs, to the extent applicable) without cash reimbursement under the GIDAP if TP Deliverability is not allocated to the generating facility. If the interconnection customer selects Option (B), then the interconnection customer will be required to make an initial posting of interconnection financial security under the GIDAP for the cost responsibility assigned to it in the Phase I interconnection study for RNUs, LDNUs, and ADNUs.⁴³

The ISO anticipates that most interconnection customers are likely to choose Option (A), because they require TP Deliverability in order to continue to commercial operation and they will seek to avoid cost responsibility for ADNUs. An interconnection customer may choose Option (B), however, if the generating facility's business model does not need TP Deliverability, or the customer believes that any obligation to pay for ADNUs and LDNUs will not be onerous.

Energy-Only Deliverability Status. An interconnection customer that makes an interconnection request for energy-only deliverability status is not eligible for either Option (A) or Option (B) and is responsible for the costs of RNUs but not for LDNUs or ADNUs. This is because an energy-only generating facility has chosen not to seek eligibility to provide resource adequacy capacity and therefore will not require any delivery network upgrades.

Participating TO Interconnection Facilities. Regardless of whether a generating facility is in the Option (A), Option (B), or energy-only category, the customer will be responsible for the costs of participating TO interconnection facilities and all other facilities costs besides the costs of ADNUs, LDNUs, and RNUs discussed above. The scope of this TPP-GIP tariff amendment and the GIDAP only extends to network upgrades and does not modify existing principles that a customer bears cost responsibility for interconnection facilities (participating TO interconnection facilities and interconnection customer interconnection facilities).

C. Interconnection Studies

1. Overview

Under the GIP, the interconnection studies for interconnection requests in a queue cluster consist of a Phase I interconnection study and a Phase II interconnection study. In order to implement the integrated approach to transmission planning and generator interconnection set forth in this filing, the GIDAP includes modified versions of each of those interconnection study phases and adds a new reassessment process (intended in part to "true-up" the base case before commencement of Phase II studies,

This definition in the GIDAP is cross-referenced in the definition of an *Option (B) Interconnection Customer* contained in Article 1 to the LGIA and in Attachment 1 to the SGIA.

to reflect developments in the immediately preceding interconnection study cycle) that will be conducted between the Phase I and Phase II interconnection studies.

Deliverability Assessment. For both the Phase I interconnection study and the Phase II interconnection study, the ISO will conduct on-peak deliverability assessments for interconnection customers selecting full capacity or partial capacity deliverability status.

The deliverability assessment conducted in each interconnection study phase will consist of two rounds: the first round will identify LDNUs to relieve the local deliverability constraints and the second round will identify ADNUs to relieve the area delivery constraints.

The results of the two-round deliverability assessment for the Phase I interconnection study will be reassessed in the reassessment process to be conducted between the Phase I and Phase II interconnection studies, in order to permit the ISO to conduct the Phase II interconnection study based on the latest available data.⁴⁴

The interconnection studies under the GIDAP are discussed below and further details are provided in the attached testimony of Dr. Zhu and Ms. Le Vine. The tariff revisions to implement these interconnection studies will allow the ISO to better coordinate the TPP and the generator interconnection processes, which will result in greater efficiency in the design of network upgrades and the use of planning resources. Therefore, the tariff revisions satisfy the purposes of Order No. 2003 and the independent entity variation standard set forth in that Order.

2. Phase I Interconnection Study

The GIDAP includes a Phase I interconnection study process that is similar to the Phase I study process under the GIP in many respects, ⁴⁷ with the important difference that the Phase I interconnection study process under the GIDAP includes modifications to implement the integrated approach to transmission planning and generator

Section 2.4.3 of the GIDAP describes the main features of the Phase I interconnection study, the "reassessment" interconnection study, and the Phase II interconnection study. Detailed tariff provisions regarding each of the Phase I, reassessment and Phase II study processes are set forth in, respectively, Section 6, Section 7, and Section 8 of the GIDAP.

⁴⁵ Zhu Testimony at 4-14 and Attachments 1 and 2; Le Vine Testimony at 5-10, 15-16.

See Order No. 2003 at PP 26, 153. See also the discussion in Section II.A of this filing.

For example, as is the case under the GIP, the Phase I interconnection studies under the GIDAP will identify direct interconnection facilities and required RNUs necessary to interconnect the generating facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested interconnection service.

interconnection set forth in this filing. In particular, the modified Phase I interconnection study process will produce more realistic and informative results than the current GIP even when there is a massive volume of generator interconnection requests in the interconnection queue.

Like the GIP, the GIDAP groups interconnection requests within a cluster into group studies that are defined electrically for the purpose of conducting the interconnection studies. The GIDAP advances the GIP study process significantly, however, by taking into consideration the most recent annual ISO transmission plan as well as the resource portfolios identified for the next TPP cycle, in order to determine, for each group study electrical area, the extent to which transmission approved through the TPP will meet the ADNU needs for projects in the queue and to identify incremental ADNU that would be needed if generation development in an area exceeds the amount assumed in the TPP portfolio.⁴⁸ In adopting these advances, however, the GIDAP still requires the Phase I interconnection study to achieve all of the purposes required of the Phase I interconnection study under the GIP, and also to achieve the following purposes specific to the integrated approach set forth in this filing:

- Preliminarily identify all LDNUs and RNUs needed to address the impacts on the ISO controlled grid of the interconnection requests;
- Establish the maximum cost responsibility for LDNUs and RNUs assigned to each interconnection request;
- Provide a cost estimate of ADNUs for each generating facility in a queue cluster group study (which will be applicable to generating facilities that adopt Option (B)) after Phase I is completed.

Identifying LDNUs and ADNUs. To implement the integrated approach, the GIDAP states that the ISO's on-peak deliverability assessment will consist of two rounds, the first of which will identify any transmission constraints that limit the deliverability of the generating facilities in the group study and will identify LDNUs to relieve the local deliverability constraints, and the second of which will identify ADNUs to relieve the area deliverability constraints.⁴⁹

GIDAP Section 6.3.2.1. Further details regarding the two rounds of both the Phase I and the Phase II interconnection studies are provided in Dr. Zhu's testimony at pages 8 to 10. Regarding these details, Section 6.3.2.1.1 of the GIDAP states that the methodology for the on-peak deliverability assessment will be published on the ISO website or, when effective, included in a business practice manual. Accordingly, the ISO plans to include the methodology for the on-peak deliverability assessment under the GIDAP in a business practice manual. This same tariff language is set forth in Section 6.5.2.1 of the GIP.

Compare Section 6.1.3 of the GIDAP with Section 6.3 of the GIP.

Determining the margin of TP Deliverability above the TPP-designated level. For each area deliverability constraint, the ISO will model an amount of generation that fully utilizes the TP Deliverability plus an additional amount of generation that would, if ultimately built, trigger a significant transmission upgrade to provide additional deliverability above the level of TP Deliverability.⁵⁰

The GIDAP includes this margin above the level of TP Deliverability pursuant to requests by many stakeholders for the Phase I interconnection study to provide more useful information. These stakeholders urged the ISO to set the amount of generation studied for deliverability in Phase I to an amount that is more in line with expected generation development, plus an additional margin to indicate the approximate incremental transmission cost if more generation is developed in a particular area. In this way, the Phase I interconnection studies will provide useful information for bilaterally contracting parties (generation developers and load-serving entities), and the regulatory authorities that oversee resource procurement, regarding the cost impacts in each area that may result if procurement exceeds the amount of new generation supported by TP Deliverability. The ISO believes that this information will also be useful for interconnection customers in deciding whether to advance to Phase II under Option (A) or Option (B).

The ISO agreed with the stakeholders and, accordingly, will set the level of the margin such that, if the queue contains an extremely large amount of additional generation in the area, the ISO will limit the amount studied for deliverability to provide the desired incremental transmission cost estimates while keeping delivery network upgrade facilities, costs, and construction times within the realm of realistically expected generation development.

Determining LDNU and ADNU cost responsibility. The GIDAP explains how cost responsibility for the LDNUs and ADNUs will be determined. The on-peak deliverability assessment will be used to establish the maximum cost responsibility for LDNUs for each interconnection customer selecting full capacity or partial capacity deliverability status, ⁵¹ and LDNU costs will be estimated using the same methodology as currently applies under the GIP for estimated delivery network upgrade costs. ⁵² For ADNU costs, the ISO will calculate a per-MW rate equal to the estimated cost of the facility required to provide additional deliverability divided by the additional MW amount of deliverability above the level of TP Deliverability. The Phase I interconnection studies will thus provide a cost estimate for each proposed generating facility which equals the

⁵⁰ GIDAP Section 6.3.2.1.2.

⁵¹ GIDAP Section 6.3.2.1.1.

Compare Sections 6.3.2.1.1 and 6.4 of the GIDAP with Sections 6.5.2.1 and 6.6 of the GIP.

rate for ADNU costs multiplied by the requested deliverable MW capacity of the generating facility in the interconnection request.⁵³

Time frames for interconnection studies and customer pre-Phase II information submittal under the GIDAP. The ISO anticipates that, under the Phase I interconnection study process set forth in the GIDAP, the ISO may sometimes require more time to issue the Phase I interconnection study report than the one hundred thirty-four (134) days set forth under the GIP for issuance of that report. Therefore, the GIDAP states that the ISO will use reasonable efforts to complete and issue the Phase I interconnection study report to interconnection customers within two hundred (200) days after the commencement of the Phase I interconnection study for queue cluster 5 and within one hundred-seventy (170) days after the annual commencement of the Phase I interconnection study beginning with queue cluster 6.55 While these time frames are somewhat longer than the GIP (which provides a 134-day duration), the ISO believes that the revised time frame will result in more meaningful study reports for customers, as the ISO explains in Section II.C(4) of this transmittal letter.

The GIDAP also increases (compared to the time given under the GIP), from five (5) business days to *ten (10) business days*, the amount of time that an interconnection customer has following the Phase I interconnection study results meeting to submit written modifications to any information provided in the interconnection request. This change provides the interconnection customer with more time to digest feedback and comments it received from the ISO and participating TO at its results meeting, consider what if any changes it wants to make to its interconnection request, tender them to the ISO, and, under the GIDAP, evaluate whether to seek TP Deliverability as an Option (A) or an Option (B) facility.

3. Reassessment and Other Requirements Prior to Phase II Interconnection Study

The ISO will conduct the reassessment after the Phase I interconnection studies are completed, as part of the process of preparing the base case for the Phase II interconnection studies. For queue cluster 5, which will be the first cluster to proceed under the GIDAP, the purpose of the reassessment is simply to enable the ISO to conduct the Phase II interconnection study based on the latest available data, most importantly with regard to the status of interconnection requests earlier in the queue. ⁵⁷

⁵³ GIDAP Section 6.3.2.1.2.

GIP Section 6.8.

⁵⁵ GIDAP Section 6.6.

⁵⁶ Compare Section 6.7.2.2 of the GIDAP with Section 6.9.2.2 of the GIP.

The ISO anticipates that the first reassessment, applicable to the queue cluster 5 interconnection study cycle, will be conducted after the Phase I interconnection study in 2013, and will take into account

For queue cluster 6 and beyond, the reassessment will involve two sequential stages, with the allocation of TP Deliverability performed between the two stages. The first stage is to establish the basis for allocating TP Deliverability to the cluster that just completed its Phase II studies (e.g., cluster 5 at the end of 2013). Then, once the allocation is completed, the second stage of the reassessment is to set up the model and assumptions for the next cluster's Phase II studies (e.g., cluster 6, early in 2014). Dr. Zhu explains the reassessment process in greater detail in her testimony.

In preparation for the Phase II interconnection study, the GIDAP requires each interconnection customer, within ten (10) business days after the Phase I interconnection study results meeting, to confirm or modify its desired deliverability status (full capacity, partial capacity, or energy-only) and, for interconnection customers seeking full capacity or partial capacity deliverability status, to select either Option (A) or Option (B).⁵⁸

As discussed further below, the allocation of TP Deliverability depends on what deliverability status each generating facility has elected and whether the interconnection customer selects Option (A) or Option (B). Thus, the provision of this required information by interconnection customers will enable the ISO to identify those proposed generating facilities for which the Phase II study must identify any ADNUs needed to increase deliverability in each group study area beyond the TP Deliverability amount reflected in the latest transmission plan. ⁵⁹

The GIDAP also adapts provisions contained in the GIP regarding initial posting and cost responsibility, in order to reflect the integrated approach to transmission planning and generator interconnection set forth in this filing. The GIDAP provisions state that, until the Phase II interconnection study report is issued to the interconnection customer, the costs assigned for RNUs and LDNUs in the Phase I interconnection study report will establish the maximum value for each interconnection customer's cost responsibility and the initial posting of interconnection financial security required from each interconnection customer for such network upgrades. The Phase I

the status of interconnection customers in the serial study group, the transition cluster, and queue clusters 1 through 4. Zhu Testimony at 18-26.

GIDAP Sections 7, 7.1, and 7.2. The provisions in Sections 7 and 7.1 of the GIDAP are similar to the provisions in Section 6.9.3 of the GIP.

In conjunction with the TP Deliverability allocation process, as described further below, interconnection customers that have already completed the Phase II study process will be required to submit additional information to the ISO to enable the ISO to determine their eligibility for the upcoming TP Deliverability allocation and, for projects previously allocated TP Deliverability, to verify on an annual basis that they have met the criteria for retaining previously allocated TP Deliverability.

⁶⁰ Compare Section 7.3 of the GIDAP with Section 6.7 of the GIP.

The GIP provisions regarding the posting of interconnection financial security are discussed in Section II.E of this transmittal letter.

interconnection study report will set forth the applicable cost estimates for RNUs, LDNUs, ADNUs, and Participating TO interconnection facilities that will be the basis for the initial interconnection financial security posting.⁶²

The GIDAP specifies that the ISO's reassessment process, in order to develop the base case for the Phase II studies for the current queue cluster, ⁶³ will include an evaluation of the impacts of status changes of earlier queued projects on the network upgrades that were identified in the *previous interconnection studies* (which were initially performed in prior interconnection study cycles and were assumed in the present interconnection study cycle Phase I interconnection study). This evaluation will consider the impact of:

- (a) withdrawals of earlier queued interconnection requests that occurred after the ISO completed the Phase II interconnection studies for the immediately preceding queue cluster;
- (b) performance of earlier queued interconnection customers with executed generator interconnection agreements with respect to required milestones and other obligations;
- (c) compliance of earlier-queued interconnection customers that were allocated TP Deliverability under the GIDAP with the retention criteria set forth in Section 8.9.3 of the GIDAP;
- (d) the results of the TP Deliverability allocation from the prior interconnection study cycle; and
- (e) transmission additions and upgrades approved in the most recent Transmission Planning Process cycle. 64

Where, as a consequence of the reassessment, the ISO determines that changes to the delivery network upgrades previously identified in queue clusters before the current interconnection study cycle will cause changes to plans of service set out in executed generator interconnection agreements, such changes will serve as a basis for amendments to those agreements.⁶⁵

GIDAP Section 7.3. The ADNU cost estimates referenced in Section 7.3 of the GIDAP are the cost estimates calculated pursuant to Section 6.3.2.1.2 of the GIDAP.

GIDAP Section 7.4.1.

⁶⁴ *Id.*

GIDAP Section 7.4.2. These same provisions are also set forth in Article 5.20 of the LGIA and in Article 12.13 of the SGIA contained in this filing.

4. Phase II Interconnection Study

The Phase II interconnection study under the GIDAP is similar in a number of respects to the Phase II interconnection study under the GIP. However, there are also significant differences between those studies. This is because the GIDAP Phase II interconnection study makes use of the classification of projects as Option (A) or Option (B) to focus on needed ADNUs only for the Option (B) projects, while identifying final LDNUs and RNUs for all generating facilities, and determining final cost estimates for all needed network upgrades. In this regard, the GIDAP states that the Phase II interconnection study will accomplish all of the following (with only item (iv) below being a new component of the GIDAP):

- update, as necessary, analyses performed in the Phase I interconnection studies to account for the withdrawal of interconnection requests from the current queue cluster;
- (ii) identify final reliability network upgrades needed to physically and reliably interconnect the generating facilities and provide final cost estimates;
- (iii) identify final LDNUs needed to interconnect those generating facilities selecting full capacity or partial capacity deliverability status and provide final cost estimates;
- (iv) identify final ADNUs for interconnection customers selecting Option (B) and provide revised cost estimates;
- identify, for each interconnection request, the participating TO's interconnection facilities for the final point of interconnection and provide a plus or minus 20 percent cost estimate; and
- (vi) coordinate in-service timing requirements based on operational studies in order to facilitate achievement of the commercial operation dates of the generating facilities.⁶⁷

As with the Phase I interconnection study under the GIDAP, the GIDAP Phase II interconnection study includes an on-peak deliverability assessment that consists of two rounds, the first of which will identify LDNUs to relieve local deliverability constraints and the second of which will identify ADNUs to relieve area deliverability constraints. Final

Under the GIP, there is no subdivision of delivery network upgrades into LDNU and ADNU, and so the GIP simply identifies final delivery network upgrades.

GIDAP Section 8.1.1. Items (i), (ii), (v), and (vi) listed above are similar to the corresponding provisions in Section 7.1 of the GIP; item (iii) is similar to the corresponding GIP provision except for the use of the new label "LDNU."

LDNUs and also final RNUs will be identified on the basis of all Interconnection Customers in the current queue cluster regardless of whether they have selected Option (A) or (B).⁶⁸

Final ADNUs will be identified for interconnection customers who have selected Option (B) pursuant to the following methodology. The deliverability assessment base case for the Phase II interconnection study will include Option (A) generating facilities in the current interconnection study cycle and earlier-queued generating facilities that will utilize TP Deliverability in a total amount that fully utilizes but does not exceed the available TP Deliverability.

- If the MW capacity of the Option (A) and earlier-queued generating facilities utilizing TP Deliverability in an electrical area, as described above, is equal to or less than the total TP Deliverability in the area, the deliverability assessment base case will include all such Option (A) and earlier-queued generating facilities in the electrical area. In this case there may be some TP Deliverability available in a given area that may reduce the need for incremental ADNUs for Option (B) projects in the Phase II study.
- If the MW capacity of the Option (A) and earlier-queued generating facilities
 utilizing TP Deliverability in an electrical area exceeds the TP Deliverability in the
 area, the deliverability assessment base case will include a representative subset
 of generating facilities that fully utilizes but does not exceed the TP Deliverability.
 In this case, the Phase II study assumes that there is no TP Deliverability in the
 given area that could reduce the need for incremental ADNUs for Option (B)
 projects.

After the ISO has modeled the generating facilities as described above, the ISO will add Option (B) generating facilities to the deliverability assessment base case. Next, ADNUs that are identified as needed for each electrical area will be assigned to Option (B) generating facilities based upon their flow impacts. It is important to note that the Phase II modeling approach just described is designed to identify the "worst case" ADNU requirements for Option (B) projects, assuming they do not receive any allocation of TP Deliverability. In the actual allocation process following the Phase II study, Option (B) projects will be eligible for TP Deliverability allocation as explained below, in which case these "worst case" requirements will be revised for any affected Option (B) projects.

GIDAP Section 8.2.1.

The methodology is set forth in Section 8.2.2 of the GIDAP.

GIDAP Section 8.2.2.

After final RNUs, LDNUs, and ADNUs are identified, cost responsibility for each of those types of final network upgrades will be assigned pursuant to the GIDAP:

- Cost responsibility for final RNUs identified in the Phase II interconnection study of an interconnection request will be assigned to interconnection customers regardless of whether the interconnection customers have selected Option (A) or (B) or energy-only deliverability status.⁷¹
- Cost responsibility for final LDNUs will be assigned to all interconnection requests for which full capacity or partial capacity deliverability status is selected, regardless of whether the interconnection customer has selected Option (A) or Option (B).⁷²
- Cost responsibility for final ADNUs will be assigned to Option (B) generating facilities with full capacity or partial capacity deliverability status based on a flow impact methodology similar to the methodology that applies to LDNUs.⁷³

Time frames for the Phase II interconnection study. Under the GIDAP Phase II interconnection study process, the ISO will commence the Phase II interconnection study on a different schedule than applies under the GIP, and the ISO anticipates that it may sometimes require more time to issue the Phase II interconnection study report than the one hundred ninety-six (196) days set forth under the GIP for issuance of that report.⁷⁴

Accordingly, the GIDAP states that the ISO will use reasonable efforts to commence the Phase II interconnection study by *May 1* of each year (rather than by January 15 of each year, as under the GIP), and to complete and issue the Phase II interconnection study report to interconnection customers within two hundred-five (205) calendar days after the annual commencement of the Phase II Interconnection Study.⁷⁵

GIDAP Section 8.3. That section of the GIDAP includes provisions for assigning cost responsibility for final short circuit-related RNUs pro rata on the basis of short circuit duty contribution, and to all other final RNUs pro rata on the basis of maximum megawatt electrical output. The provisions are similar to provisions in the GIP. *Compare* Section 8.3 of the GIDAP *with* Section 7.3 of the GIP.

GIDAP Section 8.4. That section of the GIDAP includes provisions for assigning cost responsibility for final LDNUs based on flow impact. The provisions are similar to provisions in the GIP. *Compare* Section 8.4 of the GIDAP *with* Section 7.4 of the GIP.

GIDAP Section 8.4.1. The ADNU cost estimates provided in the Phase II interconnection study will be included in establishing the basis for the second interconnection financial security posting for interconnection customers selecting Option (B). *Id.*

⁷⁴ GIP Section 7.5.

⁷⁵ GIDAP Section 8.5.

Further, the GIDAP revises the GIP schedule to state that the GIDAP Phase II interconnection study will be completed within one hundred-fifty (150) calendar days following the later of (1) the initial posting of interconnection financial security or (2) the completion of the reassessment conducted prior to the Phase II interconnection study.⁷⁶

While the time frame is longer than the GIP (which provides a 196-day duration). the ISO believes that the revised time frame will result in more meaningful study reports at the conclusion of Phase II. In its processing of the initial clusters, the ISO has received customer requests to consider and incorporate changing circumstances in the post-Phase II study phase. These requests were numerous enough that, in the GIP Phase 1 and GIP Phase 2 stakeholder processes, participants discussed whether the ISO should consider a post Phase II re-study process.77 A commonly voiced reason to consider a post Phase II re-study process was the desire of interconnection customers that the ISO consider and provide guidance - after Phase II studies were issued but before second posting deadlines – regarding the *potential* cost and interconnection configuration consequences if the ISO anticipated and assumed the withdrawal of some of the generation MW within particular study groups or assumed certain changes to the customer's interconnection method of service set out in the study report. The GIDAP study methodology will serve in large part to ameliorate network upgrade cost estimates and configurations which interconnection customers felt were too high and unrealistic because they were based on assumptions that all MW of generation in the group study would move forward. But an increased time frame to conduct the Phase II interconnection study will also provide greater opportunity to formulate study assumptions that incorporate late-arising circumstances, pertaining to and reducing the need for customer guidance and clarification in a post-Phase II setting.

D. Allocation of TP Deliverability

After the Phase II interconnection study reports are issued, the ISO will allocate available TP Deliverability to interconnection customers who demonstrate that they meet the requirements for such allocation.

As discussed below, to be allocated TP Deliverability, interconnection customers must demonstrate that their generation projects are viable as evidenced by their attainment of certain project development milestones, and in order to keep allocated TP Deliverability, such customers must demonstrate that their generation projects remain viable.

GIDAP Section 8.6.

Materials related to the GIP Phase 1 and Phase 2 stakeholder processes are available on the ISO website at http://www.caiso.com/informed/Pages/StakeholderProcesses/GeneratorInterconnectionProcedures.aspx.

Parking a generating facility project. Interconnection customers with Option (A) generating facilities that are not allocated TP Deliverability during the first allocation cycle for their queue cluster may elect to "park" their interconnection requests until the next allocation cycle and seek to be allocated TP Deliverability for the project along with eligible projects in the next cluster. Further details regarding the allocation of TP Deliverability are provided in the attached testimony of Dr. Zhu and Ms. Le Vine. Dr. Zhu's testimony includes flowcharts and a hypothetical example showing how the process for allocating TP Deliverability will work.

How TP Deliverability is Allocated. On an annual basis, after the Phase II interconnection study report is issued, the ISO will issue a market notice to inform interested parties as to the timeline for commencement of TP Deliverability allocation activities, interconnection customer submittal of eligibility status and retention information, and anticipated release of allocation results to interconnection customers. There are two components to the allocation process:

- (1) accounting for TP Deliverability used by prior commitments; and
- (2) allocating the remaining TP Deliverability to Option (A) and Option (B) interconnection customers who meet the criteria set forth in the GIDAP.⁸¹

These two components are described in more detail below.

Component (1): accounting for TP Deliverability used by prior commitments. As to the first of these components, the ISO will identify the prior commitments that will use TP Deliverability, which consist of the following:

(a) Proposed generating facilities corresponding to earlier-queued interconnection requests that meet the following criteria:⁸²

[&]quot;Parked" generating facilities compete for TP Deliverability in the next interconnection study cycle on an even playing field with Option (A) and Option (B) generating projects in that interconnection study cycle and are not given any preference based upon the earlier vintage of their interconnection requests.

⁷⁹ Zhu Testimony at 14-25; Le Vine Testimony at 7-18. For example, Dr. Zhu explains that the ISO anticipates the TP Deliverability allocation for queue cluster 5 will take place in approximately January-March 2014. Zhu Testimony at 20-21.

GIDAP Section 8.9. Ms. Le Vine explains that interconnection customers will be required to provide information about the status of their projects in approximately January to early February of each year. Le Vine Testimony at 7.

⁸¹ GIDAP Section 8.9.

GIDAP Section 8.9.1. Ms. Le Vine describes affidavit requirements that earlier-queued interconnection customers must meet in order to satisfy criteria set forth in GIDAP Section 8.9.1(a). Le Vine Testimony at 7-9, 11.

- (i) proposed generating facilities in queue cluster 4 or earlier that have executed power purchase agreements with load serving entities and have generator interconnection agreements that are in good standing; and
- (ii) proposed generating facilities in queue cluster 5 and subsequent queue clusters that were previously allocated TP Deliverability and have met the criteria discussed below for retaining their allocations.
- (b) Any maximum import capability included as a planning objective in the Transmission Plan.
- (c) Any other commitments to provide deliverability having a basis in the tariff.

Component (2): allocating the remaining TP Deliverability to Option (A) and Option (B) generating facilities that meet viability criteria set forth in the GIDAP. Regarding the second component of the process for allocating TP Deliverability, if the ISO determines that any TP Deliverability remains available for allocation after taking into account the prior commitments under the first component discussed above, then the ISO will allocate that remaining TP Deliverability to generating facilities in the current interconnection study cycle who demonstrate that they meet specified eligibility criteria, and also to eligible "parked" interconnection requests from the previous interconnection study cycle. The ISO discusses the eligibility criteria and the concept of parked interconnection requests below.

An interconnection customer in the current interconnection study cycle will be eligible to be allocated TP Deliverability based on a demonstration that its generating facility is moving toward commercial operation with regard to its permitting status, its financing status, and acquisition of land required for the project. Pursuant to a methodology to be set forth in the business practice manual, the ISO will also assign numerical scores to projects eligible for TP Deliverability based on the extent to which they have been shown to meet those criteria for viability.

⁸³ GIDAP Section 8.9.2.

Id. At a minimum, the interconnection customer must demonstrate that it has applied for the necessary governmental permit or authorization for the construction and that either (i) there is a commitment of project financing, and there is a regulator-approved power purchase agreement or the interconnection customer is proceeding to commercial operation without a power purchase agreement, or (ii) the interconnection customer does not have an executed power purchase agreement but is included on an active short list or other recognized method of preferential ranking of power providers by a load serving entity that is a prospective purchaser. Id.

Subsequent to the allocation: options available to the generating facility, including opportunities to park the generating facility for one allocation cycle. If the amount of generating facilities meeting the eligibility criteria can be fully accommodated by the available amount of TP Deliverability, the ISO will allocate TP Deliverability to all of them. If, however, if the amount of projects meeting the minimum eligibility criteria cannot be fully accommodated by the available amount of TP Deliverability, the ISO will allocate the available TP Deliverability to those generating facilities with the highest numerical scores until the available TP Deliverability is fully allocated. Thus, if the amount of projects meeting the eligibility criteria exceed the amount of TP Deliverability, it is possible that a generating facility may be allocated all, none, or a portion of its requested deliverability capacity. The GIDAP tariff provides options for interconnection customers under each of these circumstances, including the option to decline some or all of the amount of TP Deliverability that has been allocated.

In each category there will be opportunities for an Option (A) project to "park" its interconnection request; meaning that the generating facility may participate in a second TP Deliverability allocation on the same basis as the generating facilities participating in the allocation for the first time.⁸⁶ The options available to interconnection customers are described below and also discussed by Ms. Le Vine in her testimony.⁸⁷

The ISO incorporated the parking option into the GIDAP in response to many stakeholders who were concerned that the length of the allocation window following the completion of the Phase II interconnection study may not be sufficient for some viable projects to achieve the project development milestones needed to obtain a TP Deliverability allocation. The ISO believes that allowing Option (A) projects to park for one additional cycle is a reasonable accommodation, since these projects have declared that they would not be viable absent a TP Deliverability allocation and would otherwise be required to withdraw from the queue or, at a minimum, downgrade their project to energy-only deliverability status.

In the stakeholder process, some stakeholder comments argued that interconnection requests should be allowed to park for *more than one cycle*. The ISO considered this, but determined that any longer parking limit would render the Phase II interconnection study results for the parked projects obsolete, while refreshing the study results every year would maintain a potentially large volume of projects in the study process and would thus exacerbate the current problems caused by excessive queue size. Therefore, the ISO concluded that the ability to park for only one allocation cycle strikes an appropriate balance between allowing potentially viable Option (A) projects a second chance in the process for allocating TP Deliverability and preventing less viable projects from lingering in the queue and complicating the study process.

⁸⁶ *Id.*

Le Vine Testimony at 13-18.

(a) Generating Facilities Not Allocated TP Deliverability

If an Option (A) generating facility is allocated less TP Deliverability than it requested or does not desire to accept the amount allocated, the interconnection customer must select one of the following options for further processing of its interconnection request:⁸⁸

- (1) Withdraw its interconnection request;
- (2) Enter into a generator interconnection agreement, in which case the interconnection request will automatically convert to energy-only deliverability status. ⁸⁹ In such circumstances, upon execution of the generator interconnection agreement, any interconnection financial security will be adjusted to remove the obligation for security pertaining to LDNUs; or
- (3) Park the interconnection request, in which case the interconnection request may remain in the interconnection queue (*i.e.*, remain parked) until the next annual allocation of TP Deliverability in which it may participate. Parking an interconnection request does not confer a preference relative to any other interconnection requests with respect to allocation of TP Deliverability.

If an Option (B) generating facility is not allocated TP Deliverability, the interconnection customer must withdraw its interconnection request or enter into a generator interconnection agreement committing to fund, without reimbursement, the necessary ADNUs and LDNUs.

(b) Partial Allocations of TP Deliverability

As described above, it is possible for a project to be allocated TP Deliverability in the current interconnection study cycle in an amount less than the amount of TP Deliverability requested. If that occurs and the interconnection customer wants to accept the lower amount, the customer selecting either Option (A) or Option (B) must choose one of the following options:

⁸⁸ GIDAP Section 8.9.5.

For an Option (A) generating facility not allocated TP Deliverability that converts to energy-only deliverability status, the GIDAP provides the annual option to be studied to determine whether that customer can be designated for full capacity deliverability status using available transmission capacity. This provision in the GIDAP builds upon a similar provision in the GIP that provides the same annual option to a generating facility previously studied as energy-only deliverability status under the ISO tariff. *Compare* Section 9.2.1 of the GIDAP *with* Section 8.2.1 of the GIP.

- (i) Accept the allocated amount of TP Deliverability and reduce the MW generating capacity of the proposed generating facility such that the allocated amount of TP Deliverability will provide the requested deliverability status to the reduced generating capacity;
- (ii) Accept the allocated amount of TP Deliverability and adjust the deliverability status of the proposed generating facility to achieve partial capacity deliverability status corresponding to the allocated TP Deliverability;
- (iii) For an Option (A) generating facility, accept the allocated amount of TP Deliverability, park the interconnection request, and seek additional TP Deliverability for the remainder of the requested deliverability of the interconnection request in the next allocation cycle. In this case the customer will execute an interconnection agreement for the full MW size of the project with partial capacity deliverability status based on the allocated amount of TP Deliverability, with the understanding that the interconnection agreement will be amended if additional TP Deliverability is allocated to it in the next cycle; or
- (iv) Decline the allocated amount of TP Deliverability and either withdraw the interconnection request or convert to energy-only deliverability status. An interconnection customer having an Option (A) generating facility that has not previously parked may decline the allocation of TP Deliverability and park until the next cycle of TP Deliverability allocation. ⁹⁰

(c) Declining TP Deliverability Allocation

If an interconnection customer having an Option (A) or (B) generating facility that has not previously parked and is allocated the entire amount of requested TP Deliverability may decline all or a portion of the TP Deliverability allocation and may park as described under item (3) of subsection (a), above.⁹¹

Required Customer Response to TP Deliverability Allocation. After the ISO releases the results of the TP Deliverability allocation, interconnection customers will have seven days to inform the ISO of their courses of action. After receiving this notice from all affected interconnection customers, the ISO will provide updates where needed to the Phase II interconnection study reports for all generating facilities whose network

⁹⁰ GIDAP Section 8.9.5.

⁹¹ GIDAP Section 8.9.6.

upgrades have been affected. ⁹² The ISO anticipates that approximately 30 days will be required to provide these updates. ⁹³

In her testimony, Dr. Zhu provides a hypothetical example showing how the process for allocating TP Deliverability will work. The example illustrates how the various components of the process operate in concert to yield allocations of TP Deliverability in accordance with the provisions of the GIDAP discussed above.⁹⁴

Once an interconnection customer is allocated TP Deliverability, it may retain the allocation only if it makes an annual demonstration (up until the time it achieves commercial operation) that it continues to meet the retention criteria specified in the GIDAP. If an interconnection customer fails to retain its allocation of TP Deliverability, the deliverability status of its project will convert to energy-only deliverability status. It was a located state to demonstrate that they are eligible to be allocated and to retain TP Deliverability and the timing of the required demonstrations.

E. Interconnection Financial Security

The GIDAP carries over a number of provisions from the GIP regarding posting of interconnection financial security by Interconnection Customers and also addresses the use of interconnection financial security in the context of different elements of the new integration approach, including ADNUs, LDNUs, Option (A), and Option (B). 98

⁹² GIDAP Section 8.9.8;

Zhu Testimony at 16; Le Vine Testimony at 17. After the updated costs and construction schedules have been determined, generator interconnection agreements will be provided and interconnection customers will move toward negotiation and execution of those agreements as described in Ms. Le Vine's and Dr. Zhu's testimony. As Ms. Le Vine notes, developing construction schedules for updated network upgrade costs could take up to an additional 70 days, which may substantially lengthen the time period between completion of the second component of the TP Deliverability allocation and the tendering of generator interconnection agreements to customers. Le Vine Testimony at 17-18.

Zhu Testimony at 18-25.

GIDAP Section 8.9.3. The interconnection customer's obligation to satisfy the retention criteria in order to retain the allocation of TP Deliverability is also set forth in Article 4.6 of the LGIA and in Article 1.10 of the SGIA. Furthermore, Section 3.5.1.4 of the GIDAP states that the ISO's agreement to an extension of the proposed commercial operation date does not relieve the interconnection customer from compliance with the retention criteria.

⁹⁶ GIDAP Section 8.9.7.

⁹⁷ Le Vine Testimony at 8-9, 11-13.

⁹⁸ Compare Section 11 of the GIDAP with Section 9 of the GIP.

A primary purpose of the interconnection financial security provisions contained in the GIDAP, like those contained in the GIP, is to ensure that developers have sufficient "skin in the game" such that they are encouraged to make decisions regarding the status of their projects as early in the process as possible, and so that projects that are not sufficiently mature to be considered viable for continuation can be identified so that they do not inhibit the overall progress of projects that are ready to progress through the interconnection study cycle. The Commission expressly accepted this interconnection process design element as a just and reasonable, integral component of the ISO's queue cluster process. This reduces the incentive for non-viable projects to remain in the interconnection queue. The interconnection financial security provisions thus satisfy the purposes of Order No. 2003 and the independent entity variation standard.

The initial posting requirement. Under the GIDAP, separate requirements apply to the initial posting of interconnection financial security for by customers selecting Option (A), Option (B) and energy-only deliverability status.

Specifically, interconnection customers (for both large and small generating facilities) selecting Option (A) full capacity or partial capacity deliverability status must initially post for the costs of LDNUs and RNUs in amounts based on the same percentages and dollar limits that currently apply to such customers when they initially post for the costs of network upgrades under the GIP.¹⁰⁰

Interconnection customers selecting Option (B) full capacity or partial capacity deliverability status must initially post for the costs of ADNUs, LDNUs, and RNUs in amounts based on the same percentages and dollar limits that currently apply to such customers when they initially post for the costs of network upgrades under the GIP.¹⁰¹ A new feature of the GIDAP, however, as noted earlier, is that when there is an exceptionally large volume of interconnection requests in the queue in a particular area, relative to the amount of TP Deliverability for that area based on the most recent transmission plan, the Phase I study will model a representative amount of new generation in that area in order to identify the next significant incremental ADNU that will be needed, and the ISO will use this incremental ADNU to calculate a per-MW ADNU rate on which to base the initial ADNU posting requirements for Option (B) projects.

Interconnection customers selecting energy-only deliverability status must initially post for the costs of RNUs in amounts based on the same percentages and dollar limits

California Independent System Operator Corp., 124 FERC ¶ 61,292, at PP 151-57 (2008).

Compare Section 11.2.3.1(2) of the GIDAP with Section 9.2.3 of the GIP; compare Section 11.2.3.2(2) of the GIDAP with Section 9.2.3 of the GIP.

Compare Section 11.2.3.1(3) of the GIDAP with Section 9.2.3 of the GIP; compare Section 11.2.3.2(3) of the GIDAP with Section 9.2.3 of the GIP.

that currently apply to such customers when they initially post for the costs of network upgrades under the GIP.¹⁰²

In addition, all interconnection customers assigned to a queue cluster must initially post for the costs of participating TO interconnection facilities in amounts based on the same percentages and dollar limits that currently apply to such customers when they initially post for the costs of those interconnection facilities under the GIP.¹⁰³

The GIDAP also specifies if the costs of either the estimated network upgrades or the participating TO interconnection facilities are less than the minimum posting amounts that would apply under the GIDAP, then the initial posting amount required will be equal to the estimated network upgrades amount or the participating TO interconnection facilities amount.¹⁰⁴

The second posting requirement. Turning to the second posting of interconnection financial security, the GIDAP includes provisions to extend the posting due date to take into account certain circumstances that customers selecting Option (A) may face relating to their requested deliverability.

In particular, for a customer selecting Option (A) whose generating facility was not allocated TP Deliverability in the first TP Deliverability allocation following its receipt of the final Phase II interconnection study, and who chooses to park the interconnection request, the posting due date will be extended by 12 months.¹⁰⁵

For an Option (A) customer whose generating facility was allocated TP Deliverability for less than the full amount of its interconnection request, and who chooses to seek additional TP Deliverability for the remainder of the requested deliverability of the interconnection request in the next interconnection study cycle, the full posting amounts for participating TO interconnection facilities and for RNUs, and the partial amount for LDNUs corresponding to the initial allocation of TP Deliverability, will be due in accordance with the schedule specified in the GIDAP for the second posting of interconnection financial security (which is the same as the schedule included in the

Compare Section 11.2.3.1(1) of the GIDAP with Section 9.2.3 of the GIP; compare Section 11.2.3.2(1) of the GIDAP with Section 9.2.3 of the GIP.

Compare Section 11.2.4.1 of the GIDAP with Section 9.2.4.1 of the GIP; compare Section 11.2.4.2 of the GIDAP with Section 9.2.4.2 of the GIP.

GIDAP Section 11.2.5. By comparison, Section 9.2.4.3 of the GIP only addresses cost estimates less than minimum posting amounts for the costs of estimated participating TO interconnection facilities.

GIDAP Section 11.3.1.3. As Ms. Le Vine explains, this 12-month extension period will allow the second posting of interconnection financial security to be made up to 18 months after the initial Phase II interconnection study results are published (*i.e.*, the normal six-month period for posting set forth in Section 11.3.1.2 of the GIDAP, plus the 12-month extension period). Le Vine Testimony at 20.

GIP). The posting due date for the LDNUs corresponding to the remainder of the requested deliverability will be extended by 12 months, so that the requirement can reflect the outcome of the next allocation cycle. ¹⁰⁶

The same provision will apply to an Option (A) generating facility that was allocated more TP Deliverability than the customer is ready to accept, and who decides to turn down some or all of the allocation and seek TP Deliverability when it is allocated in the next interconnection study cycle.

As is the case with the initial posting of interconnection financial security, separate requirements apply under the GIDAP to the second posting of interconnection financial security by customers selecting Option (A), Option (B) or energy-only deliverability status, depending on the types of network upgrades for which each of those interconnection customers are required to post interconnection financial security pursuant to the relevant studies.

Similar to the initial posting, the percentages and dollar limits applicable to the second posting under the GIDAP are keyed to the percentages and dollar limits that apply to the second posting for the costs of network upgrades under the GIP. ¹⁰⁷ Further, as to interconnection customers selecting Option (B), the GIDAP specifies that, to the extent that the customer's generating facility is allocated TP Deliverability, the cost responsibility assigned to the customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. ¹⁰⁸ This adjustment is required to appropriately calculate the cost responsibility of an Option (B) generating facility that is allocated TP Deliverability.

The third posting requirement. With regard to the third interconnection financial security posting, the GIDAP requires interconnection customers to "true-up" their interconnection financial security posting amounts so that the security instruments reflect one hundred percent of the total cost responsibility assigned to the interconnection customers for network upgrades (and participating TO interconnection facilities), which is also a requirement under the GIP. ¹⁰⁹

In addition, the GIDAP specifies that an interconnection customer whose Option (B) generating facility was not allocated TP Deliverability and elects to have a party other than the applicable participating TO(s) construct an LDNU or ADNU is not

GIDAP Section 11.3.1.3. Section 11.3.1.2 of the GIDAP and Section 9.3.1.2 of the GIP specify the same schedule for the second posting of interconnection financial security.

¹⁰⁷ Compare Sections 11.3.1.4.1 and 11.3.1.4.2 of the GIDAP with Section 9.3.1.2 of the GIP.

GIDAP Sections 11.3.1.4.1(3)(b) and 11.3.1.4.2(3)(b).

Compare Section 11.3.2.1 of the GIDAP with Section 9.3.2 of the GIP.

required to make the third posting in favor of the participating TO for its cost responsibility for such LDNU or ADNU. 110

Instead, this interconnection customer will be required to demonstrate its financial capability to pay for the full cost of construction of its share, as applicable, of the LDNU or ADNU consistent with ISO Tariff Section 24.4.6.1, which is the merchant transmission developer model. Once construction of network upgrades commences and the interconnection customer demonstrates that the funds expended equal the avoided cost of the third posting, the interconnection customer will be refunded that portion of its second posting of interconnection financial security corresponding to the facilities whose construction it is undertaking. Interconnection customers may make other arrangements with the participating TO for the return of the second posting. ¹¹¹

Partial refund of financial security postings upon withdrawal. The GIDAP includes the same list of circumstances set forth in the GIP that entitle an interconnection customer to recover a portion of the customer's interconnection financial security upon withdrawal of an interconnection request or termination of a generator interconnection agreement. In addition, the GIDAP lists two other circumstances specific to Option (A) and Option (B) that also entitle such an Interconnection Customer to partial recovery of its Interconnection Financial Security:

- (1) If a customer selecting Option (A) is not allocated TP Deliverability and notifies the ISO of its election to withdraw by the deadline for the second posting of interconnection financial security. If the customer parks the interconnection request until the next allocation cycle, the deadline for notification of withdrawal is extended to 18 months after the customer receives its final Phase II study results; or
- (2) If a customer selecting Option (B) receives a Phase II interconnection study cost estimate for ADNUs that exceeds its Phase I interconnection study cost estimates for ADNUs by either twenty (20) percent or \$20 million, whichever is less, and notifies the ISO of its election to withdraw by the deadline for the second posting of interconnection financial security. 113

¹¹⁰ GIDAP Section 11.3.2.1.

¹¹¹ *Id.*

Compare Section 11.4.1 of the GIDAP with Section 9.4.1 of the GIP.

GIDAP Sections 11.4.1(e) and 11.4.1(f). These two additional circumstances are also discussed in Ms. Le Vine's testimony at page 20.

The first of these additional circumstances is available only to an Option (A) interconnection customer because an interconnection customer electing Option (B) has thereby indicated its willingness and ability to pay for ADNUs. However, in view of the fact that the Phase I interconnection study process does not provide a customer selecting Option (B) with cost caps on its ADNUs, the ISO proposes to include the second of the above-listed additional circumstances to allow an Option (B) customer to recover a portion of its interconnection financial security if the specified increase in interconnection study cost estimates for ADNUs occurs.

These additional provisions in the GIDAP benefit customers selecting Option (A) and Option (B), respectively, by enhancing their ability to partially recover interconnection financial security in appropriate circumstances. The GIDAP also streamlines the schedule set forth in the GIP for refunding that portion of interconnection financial security to interconnection customers, and lists in a more easily understandable format the formula included in the GIP for calculating the refund amount.¹¹⁴

The GIDAP revises the provisions in the GIP regarding establishment of cost responsibility for interconnection customers to specify the maximum values of interconnection financial security required for LDNUs and RNUs, for interconnection customers in a queue cluster and in the independent study process. Cost estimates for ADNUs in any study report will not establish a maximum cost responsibility for ADNUs but are estimates only. 115 The GIDAP also states that, for customers selecting Option (B), the most recent annual reassessment study report will provide the most recent cost estimates for the interconnection customer's ADNUs and the customer will adjust its interconnection financial security for ADNUs to correspond to the most recent estimate. This may be significant if, following the results of the TP Deliverability allocation process, some projects decide to downsize or withdraw from the queue, which in turn reduces some of the network upgrade requirements and costs facing the Option (B) projects. These provisions in the GIDAP are needed to set forth the means of establishing the maximum values of interconnection financial security required for LDNUs and RNUs for different interconnection customers, and to make clear that no such maximum values apply to ADNUs.

Compare Section 11.4.2 of the GIDAP with Section 9.4.2 of the GIP.

GIDAP Section 10.

GIDAP Section 11.5.

F. Construction of and Payment for Network Upgrades

1. Construction Obligation

Similar to provisions in the GIP, the GIDAP requires applicable participating TO(s) to finance and construct any network upgrades necessary to support the interconnection of the generating facility of an interconnection customer with a generator interconnection agreement whenever the network upgrades were included in the interconnection base case data for a Phase II interconnection study, on the basis that they were network upgrades associated with generating facilities of interconnection customers that have an executed or unexecuted generator interconnection agreement (or its equivalent predecessor agreement) filed with the Commission, and such agreement specifies that the participating TO would construct the network upgrades, and either:

- (i) the network upgrades will not otherwise be completed because such agreement or equivalent predecessor agreement was subsequently terminated or the Interconnection Request has otherwise been withdrawn; or
- (ii) the network upgrades will not otherwise be completed in time to support the interconnection customer's in-service date because construction has not commenced in accordance with the terms of such agreement.¹¹⁷

To address the construction of ADNUs for an Option (B) generating facility in one of these types of situations, the GIDAP also states that, where the participating TO is constructing ADNUs for customers and one of the two conditions described above occurs, the participating TO will continue to construct such ADNUs with financing provided from the interconnection financial security of those customers, with any additional financing requirements to be reapportioned among those remaining Option (B) generating facilities who still need the ADNUs. These provisions are necessary to ensure the financing required to construct the ADNUs.

The GIDAP also specifies that the applicable participating TO(s) are required to construct network upgrades, with the exception of LDNUs and ADNUs for Option (B) generating facilities that were not allocated TP Deliverability and that make the following choice. For those LDNUs and ADNUs, interconnection customers may instead, at their discretion, select parties other than the applicable participating TOs to perform the construction if the LDNUs and ADNUs are eligible for construction by parties other than the applicable participating TOs pursuant to ISO Tariff Section 24.5.2. Such ADNUs

¹¹⁷ Compare Section 14.2.2 of the GIDAP with Section 12.2.2 of the GIP.

¹¹⁸ GIDAP Section 14.2.2.

and LDNUs will be incorporated into the ISO controlled grid pursuant to the provisions for merchant transmission facilities in ISO tariff Sections 24.4.6.1 and 36.11.¹¹⁹

2. Initial Funding and Repayment Regarding Network Upgrades

i. Initial Funding of Network Upgrades

Similar to the GIP provisions regarding initial funding of RNUs and delivery network upgrades, the GIDAP states that RNUs and LDNUs will be funded by the interconnection customer(s) either by means of drawing down the interconnection financial security or by the provision of additional capital, at each interconnection customer's election, up to a maximum amount no greater than that established by the cost responsibility assigned to each interconnection customer. Further, the applicable participating TO(s) will be responsible for funding any capital costs for the RNUs and LDNUs that exceed the total cost responsibility assigned to the interconnection customers. Like the GIP, the GIDAP also addresses funding responsibility and invoicing for network upgrades that have been assigned to one or more interconnection customers, based on their assigned cost responsibilities.

ii. Compensation for Network Upgrade Costs

A key element of this filing involves modifying the existing model for customer reimbursement for the costs of network upgrades. Under the ISO's current interconnection process set forth in the GIP, generation developers are guaranteed cash reimbursement from ratepayers on a dollar for dollar basis for 100 percent of the financial security they have posted and that has been expended to cover the costs of their RNUs and DNUs, regardless of the costs of those upgrades. This is the case with respect to both the upgrades necessary to reliably connect a customer to the ISO controlled grid (RNUs) as well as those upgrades driven by a customer's request to obtain deliverability for purposes of meeting California's resource adequacy requirements (DNUs).

Present GIDAP limitation feature. In this filing, as discussed below, the GIDAP includes a limit on eligibility for cash reimbursement for network upgrade costs under certain circumstances, while providing that customers will receive congestion revenue

GIDAP Section 14.3. Similar provisions are set forth in Article 5.1.5 of the LGIA and Article 5.2.1 of the SGIA included in this filing.

Compare Section 14.3.1 of the GIDAP with Section 12.3.1 of the GIP.

Compare Section 14.3.1 of the GIDAP with Section 12.3.1 of the GIP.

¹²² GIDAP Section 14.3.1.

¹²³ GIP Section 12.3.2.1.

rights (*i.e.*, the ISO's financial transmission rights) associated with transmission capacity added to the grid by any upgrades that are not subject to cash reimbursement. The two main reasons for these revisions are to:

- (1) ensure that the reimbursement provisions are consistent with and support the goal of identifying major network upgrades necessary to realize California's renewable policy objectives through the ISO's TPP; and
- (2) promote efficient siting decisions on the part of generation developers in order to protect ratepayers against excessive costs with respect to those network upgrades that will still be identified in the interconnection process and built.

Consistency with Order No. 2003. These revisions are consistent with Commission precedent and strike an appropriate balance between promoting viable projects necessary to achieve California's renewable energy goals, providing ratepayers with protection against excessive upgrade costs, and continuing to provide a reasonable path for projects to obtain interconnection to the ISO controlled grid.

As a general matter, the ISO's proposal to limit the circumstances under which interconnection customers are eligible for cash reimbursement for their network upgrade costs is consistent with Order No. 2003 and the tariff provisions of other ISOs/RTOs regarding compensation for network upgrades. It is well established that ISOs/RTOs are required to compensate interconnection customers for their contributions to the cost of network upgrades, but that ISOs/RTOs are not required to compensate interconnection customers for their contributions to the cost of network upgrades solely in the form of cash repayment. Instead, an ISO/RTO may provide compensation to such interconnection customers in the form of financial transmission rights, which constitutes a type of participant funding.¹²⁴

In Order No. 2003, the Commission recognized that "providing transmission service credits [*i.e.*, cash repayment] for the cost of network upgrades that would not be needed but for the interconnection of the new generating facility mutes somewhat the interconnection customer's incentive to make an efficient siting decision that takes new transmission costs into account."¹²⁵

[&]quot;Participant funding means requiring the interconnection customer to pay for network upgrades in exchange for some type of financial transmission right and, while such financial rights may ultimately yield some type of congestion revenue, the actual cost of the network upgrade is never credited back to the interconnection customer as it would be in the normal Order No. 2003 crediting scheme." *California Independent System Operator Corp.*, 124 FERC ¶ 61,292, at P 131 (2008).

To address this issue, the Commission explained that "a well-designed and independently administered participant funding policy for Network Upgrades offers the potential to provide more efficient price signals and a more equitable allocation of costs than the crediting approach." The Commission stated that it would allow each ISO/RTO "flexibility regarding the interconnection pricing policy that each independent entity chooses to adopt, subject to Commission approval" – including the flexibility for the ISO/RTO to adopt participant funding. In this regard, the Commission stated that "when the Transmission Provider is an independent entity, the Commission is much less concerned that all generation owners will not be treated comparably because independence ensures that the Transmission Provider has no incentive to treat Interconnection Customers differently."

Consistent with the directives in Order No. 2003, the Commission has authorized provisions in the tariffs of other ISOs/RTOs to provide participant funding for network upgrades in the form of financial transmission rights:

- Under the Midwest ISO tariff, "an interconnection customer that funds or is charged network upgrade costs, that are not repaid, is entitled to FTRs [financial transmission rights], as well as long term transmission rights based on any additional transmission capacity created by the upgrades." 129
- "Consistent with the guidelines set forth in Order No. 2003, and generator interconnection principles approved for other ISOs/RTOs, the [New York ISO] Deliverability Plan requires interconnection customers to fund transmission

¹²⁶ Id.

Id. at P 698. The Commission had approved participant funding proposals by ISOs/RTOs even before the Order No. 2003 proceeding. The Commission explained in Order No. 2003-A that "we have permitted the direct assignment of Network Upgrade costs by an independent Transmission Provider when the Interconnection Customer receives well-defined congestion rights in return." Order No. 2003-A at P 692 (citing *Pennsylvania-New Jersey-Maryland Interconnection*, 81 FERC ¶ 61,257, at 62,259-60 (1997), order on reh'g and clarification, 92 FERC ¶ 61,282, at 61,955-56 (2000), remanded on other grounds sub nom. Atlantic City Elec. Co. v. FERC, 295 F.3d 1 (D.C. Cir. 2002)).

¹²⁸ Order No. 2003 at P 701.

Midwest Independent Transmission System Operator, Inc. and the Midwest ISO Transmission Owners, 129 FERC ¶ 61,060, at P 27 n.38 (2009). See also Midwest Independent Transmission System Operator, Inc., 114 FERC ¶ 61,106, at P 65 (2006) ("Regarding the concern that it is unclear whether Interconnection Customers will receive FTRs for their transmission expansion investments, we believe that [the Midwest ISO tariff] allows Interconnection Customers to receive FTRs made feasible by such projects"). These provisions are contained in Section 46 of the Midwest ISO tariff. Subsequently, the Commission also approved the use of this methodology for allocating the costs of a new category of transmission projects in the Midwest ISO designated as Multi Value Projects ("MVPs"). Midwest Independent Transmission System Operator, Inc., 133 FERC ¶ 61,221, at P 332 (2010), order on reh'g, 137 FERC ¶ 61,074, at P 210 (2011).

upgrades in return for the opportunity to receive valuable, tradable TCCs [transmission congestion contracts]."¹³⁰

- The PJM tariff requires the interconnection customer to pay 100 percent of the
 costs of the minimum amount of local upgrades and network upgrades necessary
 to accommodate its new service request and that would not have been incurred
 under PJM's Regional Transmission Expansion Plan but for the new service
 request, for which the interconnection customer receives capacity
 interconnection rights and incremental auction revenue rights.¹³¹
- The Commission approved Southwest Power Pool's proposal that "Interconnection Customers will pay the 'but for' costs of the interconnection and in return receive a valuable right to future revenues when the Network Upgrades funded by the customer are used by other customers." 132

Like these other ISOs/RTOs, the ISO proposes to provide financial transmission rights (specifically, CRRs) to an interconnection customer as compensation for contributing to the cost of network upgrades, to the extent the interconnection customer does not receive cash repayment. The ISO, as an independent entity, will apply this participant funding proposal consistently across all interconnection customers in queue cluster 5 and subsequent queue clusters, consistent with the requirements of Order No. 2003. Thus, the ISO's proposal is just and reasonable and consistent with Order No. 2003 and the tariff provisions of other ISOs/RTOs.

ADNU and LDNU cost reimbursement. In the GIDAP, the ISO proposes to limit cash reimbursement for ADNUs and LDNUs as follows:

- Option (B) generating facilities that were not allocated TP Deliverability will not receive cash repayment for ADNUs or LDNUs. For LDNUs, except for LDNUs for Option (B) generating facilities that were not allocated TP Deliverability, the interconnection customer will receive cash reimbursement in accordance with the customer's assigned cost responsibility.
- To the extent the interconnection customer does not receive cash reimbursement for ADNUs or LDNUs, the interconnection customer will be eligible for

New York Independent System Operator, Inc. and New York Transmission Owners, 122 FERC ¶ 61,267, at PP 42-43 (2008). The provisions to implement this component of the New York ISO Deliverability Plan are contained in Section 25.7.2 of Attachment S to the New York ISO Open Access Transmission Tariff.

PJM Interconnection, L.L.C., 108 FERC ¶ 61,025, at PP 19-20 (2004). These provisions are contained in Sections 217(3), 230, and 231 of the PJM tariff.

Southwest Power Pool, Inc., 122 FERC ¶ 61,060, at P 30 (2008). These provisions are contained in Attachment Z2 of the Southwest Power Pool tariff.

compensation in the form of merchant transmission CRRs associated with the network upgrades or portions thereof that were funded by the interconnection customer. ¹³³

The GIDAP provisions requiring interconnection customers to elect Option (A) or Option (B) for each of their projects, and the related provisions establishing, for each of these options, the cost responsibilities, financial security requirements, reimbursement rules, opportunities for TP Deliverability allocation, and the choices available to projects following the allocation process, all fit together to comprise a central design feature of the GIDAP which addresses one of the primary objectives of the entire TPP-GIP integration initiative. Specifically, a key objective the ISO articulated at the start of this initiative was to limit the exposure of transmission ratepayers to excessive costs for interconnection-driven transmission expansion, in a manner that creates financial incentives for generation developers to locate in areas where transmission is being developed through the TPP and to make progress in developing their projects, while ensuring non-discriminatory open access for all interconnection customers. The Option (A) and Option (B) structure and associated tariff provisions form the mechanism by which the GIDAP accomplishes this objective. As such, the requirement that Option (B) projects not allocated TP Deliverability that want to continue to achieve their requested deliverability status must commit to fund their needed LDNUs and ADNUs as merchant transmission is crucial to this aspect of the GIDAP proposal.

Further, with respect to ADNUs and LDNUs that will still be identified in the interconnection process, limitations on cash reimbursement provide an incentive for interconnection customers to make efficient siting decisions that take new transmission costs into account, as the Commission recognized in Order No. 2003. This incentive means that interconnection customers will be less likely to make siting decisions that result in ratepayers having to fund ADNUs and LDNUs that are underutilized or unutilized or that would not have been necessary if better siting decisions had been made.

RDNU cost reimbursement. As to the repayment of RNUs, the GIDAP provides that:

- the interconnection customer will receive cash repayment for RNUs in accordance with its assigned cost responsibility, up to a maximum of \$60,000 per MW of generating capacity.
- To the extent the cost of an interconnection customer's RNUs exceed the cash repayment maximum, the interconnection customer will be eligible for compensation in the form of merchant transmission CRRs associated with the

GIDAP Section 14.3.2.1. Article 11.4.1.1 of the LGIA and Article 5.3.1.1 of the SGIA provide for compensation for ADNUs and LDNUs on this same basis.

transmission capacity added to the ISO grid by those RNUs or portions thereof that were funded by the interconnection customer. 134

The repayment limit of \$60,000 per MW for RNUs is appropriate based on an analysis conducted by the ISO. To determine the repayment limit, the ISO calculated the average of GIP Phase 2 RNU costs per MW of installed generating capacity, for all transition cluster projects and all projects in queue clusters 1 and 2.¹³⁵ The repayment limit of \$60,000 per MW, besides being slightly above the arithmetic mean of the cost distribution for these projects, is the 71st percentile of the cost distribution, *i.e.*, 71 percent of the total project MW included in the ISO's historical data set had per-MW RNU costs below \$60,000.¹³⁶ Thus, the \$60,000-per-MW limit can be expected to result in full cash repayment for RNUs for the majority of projects, and will provide an incentive for interconnection customers to avoid siting their projects in locations where the costs of RNUs needed to support the interconnections will be inappropriately high.¹³⁷

G. Application of the GIDAP to Queue Cluster 5 and Subsequent Queue Clusters

The GIDAP will apply to interconnection requests that are assigned to queue cluster 5 and subsequent queue clusters, but will not apply to pre-cluster 5 projects, which are already subject to the GIP. 138

In the stakeholder process for this filing, some stakeholders suggested that the ISO should also make the GIDAP applicable to the earlier queue clusters. The ISO considered these comments but determined that it is more appropriate to apply the GIDAP only to queue cluster 5 and subsequent queue clusters because making earlier queue clusters subject to the GIDAP would be problematic at this late date. In this regard, the Phase II interconnection study processes for queue clusters 1 and 2 have

GIDAP Section 14.3.2.1; LGIA Article 11.4.1.1; SGIA Article 5.3.1.1.

[&]quot;Integration of Transmission Planning and Generator Interconnection (TPP-GIP Integration) Final Proposal" at slide 16 (Mar. 16, 2012) ("March 16 Presentation"). The March 16 Presentation is available on the ISO's website at http://www.caiso.com/Documents/Presentation-TransmissionPlanning-GeneratorInterconnectionProceduresIntegration.pdf. In the stakeholder process for this filing, the ISO originally proposed a repayment limit for RNUs of \$40,000 per MW, based on the approximate average of GIP Phase 2 RNU costs for Cluster 1 and 2 projects, excluding the four highest-cost-per-MW projects. *Id.* However, the ISO subsequently determined that the proposed limit should be raised to \$60,000 per MW based on calculation of the average per-MW cost of RNUs using a larger and more inclusive historical data set. Attachment A to March 16, 2012 Board Memorandum (Attachment K to this filing) at 3.

March 16 Presentation at slide 16.

¹³⁷ Zhu Testimony at 4.

GIDAP Section 1. The GIDAP will also apply to interconnection requests submitted for the Independent Study Process or the Fast Track Process after the effective date of this filing. *Id.*

been completed, the study process for clusters 3 and 4 is well underway, and customers with projects in these clusters or even earlier in the queue have proceeded thus far on the expectation that the current GIP provisions would apply to them. Moreover, the ISO is already taking steps under the current GIP provisions to address issues with those queue clusters.

In particular, the ISO has reassessed the Phase II interconnection study results for queue clusters 1 and 2 to identify and remove from the study results those delivery network upgrades that would:

- (1) be costly and require large postings of interconnection financial security by interconnection customers in queue clusters 1 and 2;
- (2) take many years to build, thus delaying deliverability for queue cluster 1 and 2 generating facilities and adversely affecting their ability to provide resource adequacy capacity as required by their bilateral power purchase agreements; and
- (3) be unlikely to be needed based on the amount of new generation expected to actually receive power purchase agreements and become commercially viable, thus adding uncertainty regarding when the successful projects will achieve their requested deliverability status.

On this basis, the ISO has provided addenda to the Phase II interconnection study results for queue clusters 1 and 2 that remove the delivery network upgrades meeting the three criteria discussed above. ¹³⁹

The ISO is now performing the Phase II interconnection study process for queue clusters 3 and 4, taking into account the results of the reassessment performed for queue clusters 1 and 2, and will apply a similar evaluation of the delivery network upgrades required for projects in clusters 3 and 4 as part of the process to finalize their Phase II study results. 140

These evaluations for queue clusters 1 through 4 are expected to result in significant savings to ratepayers because they will not be required to fund the costly and unnecessary delivery network upgrades initially identified in the cluster study process.

The ISO described this reassessment process in a technical bulletin issued on January 31, 2012, as revised on February 2, 2012 ("Reassessment Technical Bulletin"). At the same time, the ISO also posted a technical report documenting the results of its reassessment of the network upgrade requirements for Clusters 1 and 2. The Reassessment Technical Bulletin is available on the ISO website at http://www.caiso.com/Documents/TechnicalBulletin-GeneratorInterconnectionProcedures-DeliverabilityRequirements-Clusters1-4Jan31_2012.pdf, and the technical report is available on the ISO website at http://www.caiso.com/Documents/TechnicalReport_cluster1_2DeliverabilityRe-Assessment.pdf

These evaluations will also benefit the interconnection customers for these projects by relieving them of upgrade cost obligations, associated with large network upgrades driven by unrealistic queue volumes, which were impeding their ability to negotiate power purchase agreements and obtain project financing. The results of these evaluations to address issues with queue clusters 1 through 4 should be permitted to stand, without introducing the complications that would result from trying to apply the provisions of the GIDAP to those queue clusters.

Declining to apply the GIDAP to queue clusters 1 through 4 is also consistent with guidance provided by the Commission as to reforms affecting late-stage interconnection requests. The Commission has recognized that

reforms that would affect existing interconnection requests that are in later stages of the [interconnection] process . . . could significantly disrupt the activities of customers who may have taken action in reliance upon the existing process.¹⁴¹

The ISO's Phase II interconnection study processes for queue clusters 1 through 4 (as modified by the ISO evaluations described above) are in their later stages, and interconnection customers in those queue clusters entered the interconnection queue and have made significant expenditures and commitments based on the expectation that the existing tariff rules would apply. Therefore, in the ISO's assessment, applying the GIDAP to those earlier queue clusters would significantly disrupt the ISO's interconnection process and should not be required.¹⁴²

H. Cluster Application Windows

The ISO proposes to revise the schedule in the GIDAP for submitting interconnection requests for a queue cluster from the schedule set forth in the corresponding provisions of the GIP. Specifically, GIDAP will discontinue the GIP structure providing for two cluster application windows associated with each interconnection study cycle. 143

Interconnection Queuing Practices, 122 FERC ¶ 61,252, at P 19.

Although the GIDAP will not apply to pre-cluster 5 projects, the allocation of TP Deliverability under the GIDAP, discussed in Section II.D of this transmittal letter, does take into account the status of projects earlier in the queue for the purpose of determining how much TP Deliverability should be reserved for the earlier projects and not allocated to projects in queue cluster 5 and subsequent queue clusters. This assessment, referred to as step 1 of the TP Deliverability allocation process, is essential to prevent excessive allocation of TP Deliverability which could, in turn, drive a need for additional transmission expansion in the TPP beyond the transmission required by the resource portfolios formulated for identifying public policy-driven transmission.

Under the GIP, there is an initial cluster window that that opens on October 15 and closes on November 15 of the calendar year before the year in which the ISO will conduct the interconnection study cycle. This early window gives customers the opportunity to submit an interconnection request package

Instead, the GIDAP specifies that a single cluster application window for queue cluster 5 opened on March 1, 2012 and closed on March 31, 2012, and, starting with queue cluster 6, a single cluster application window will open on April 1 and close on April 30 of each year. These revisions are needed to more closely align the timeline under the GIDAP with the Transmission Planning Process timeline. ¹⁴⁵

The ISO recognizes that the March 31, 2012 closing date for queue cluster 5 is already past and thus interconnection customers in that queue cluster did not have an opportunity to decide prior to March 31 whether to wait until the Commission issued an order on the GIDAP before deciding whether to enter the queue cluster. Therefore, the ISO has included a provision in the GIDAP that gives each interconnection customer in queue cluster 5 the choice to withdraw from the interconnection queue within ten (10) calendar days of the date of issuance of a Commission order on the GIDAP, with a refund of the interconnection customer's interconnection study deposit *less actual costs expended on interconnection studies to date of withdrawal.* In advance of this tariff filing, the ISO issued a market notice on February 10, 2012 to inform interested parties that the ISO would include this withdrawal feature in the ISO's TPP-GIP tariff amendment filing.¹⁴⁷

Because cluster 5 interconnection customers will have the option to withdraw after a Commission order is issued, the Phase I interconnection studies cannot begin until the cluster composition is finalized. Thus, as discussed in Dr. Zhu's and Ms. Le Vine's testimony and in Section IV below, the careful coordination of the cluster 5 and 6 studies with the TPP is very dependent upon timely Commission approval of the ISO's GIDAP proposal.

to the ISO and have a scoping meeting in the December-January time frame, and obtain preliminary feedback on the request information, even though the studies relating interconnection request application will not commence until after the second window (March 1-31) closes and applications collected in this window are processed. In the GIP Phase 1 stakeholder process, stakeholders indicated that the "early look" opportunity of the October 15-November 15 window would be valuable, and so the ISO incorporated it into the GIP. Under the GIDAP, however, the timing of the study processes and the inclusion of a midstage reassessment process make having a similar early window unworkable.

- GIDAP Section 3.3.1.
- The timeline for the Transmission Planning Process is provided in Attachment L to this filing.
- In this respect, the "forfeiture element" of GIDAP Section 3.5.1.1(b) will not be applied to customers withdrawing from queue cluster 5 within the 10-day period after the Commission order is issued.
- The ISO's February 10, 2012 market notice can be accessed on the ISO's website at http://www.caiso.com/Documents/GeneratorInterconnectionProcedures-QueueCluster5.htm.

I. Miscellaneous Tariff Revisions

In addition to the tariff revisions discussed above, this filing contains the miscellaneous revisions described below.

1. Inclusion of References to the GIDAP in Pertinent ISO Tariff Definitions

In this filing, the ISO proposes to define the GIDAP in the ISO tariff as the interconnection procedures applicable to an interconnection request pertaining to a generating facility processed under Appendix DD to the tariff. The ISO also proposes to modify the existing definitions of the terms Fast Track Process, Independent Study Process, Interconnection Study Cycle, On-Peak Deliverability Assessment, Queue Cluster, Reasonable Efforts, and Roles and Responsibilities Agreement to make those terms applicable under both the GIP and the GIDAP.

2. Inclusion of GIP Definitions in Appendix A

For ease of reference, the ISO proposes to include, in Appendix A to the ISO tariff, the definitions of the terms *Force Majeure*, *Governmental Authority*, and *Phased Generating Facility* contained in the GIP.

3. Appendices to the GIDAP

In this filing, the ISO proposes to include certain provisions in the appendices to the GIDAP that differ from the corresponding provisions in the GIP. For example, Attachment A to Appendix 4 of the GIDAP contains different Phase I and Phase II timelines than does the GIP. These differences are intended to reflect the timelines and other features specific to the GIDAP.

The ISO also proposes to omit certain provisions from the appendices to the GIDAP that are included in the appendices to the GIP. They have been omitted from the GIDAP because they are inapplicable to it. For example, the GIDAP omits Appendix 2 to the GIP, which contains Large Generator Interconnection Procedures relating to the Large (L) transition cluster, because there GIDAP does not provide for the transition of any cluster 1-4 projects to the new process and thus there is no GIDAP transition cluster.

III. Stakeholder Concerns Voiced and Other Design Elements Discussed During Stakeholder Process

As discussed above, the ISO conducted a robust and lengthy stakeholder process, solicited comments, and incorporated many stakeholder suggestions and concerns into the final GIDAP proposal approved by the ISO Board of Governors.

Other issues raised by stakeholders during the final stages of the initiative sought further clarification of specific GIDAP concepts or proposed tariff language

A. The Possibility that Large Amounts of Proposed Generation in a Study Area Will Drive Excessive LDNU Costs

Stakeholders expressed concern that, although ADNUs are likely to be large infrastructure upgrades identified and approved through the TPP, it is possible that large volumes of interconnection requests within a study area could require costly LDNUs. According to the GIDAP design and the proposed tariff language, Option (A) generating facilities allocated TP Deliverability are not required to post financial security for ADNUs but are required to make postings for RNUs and LDNUs. Stakeholders argued that excessive LDNU costs, where the needs for the LDNUs are based on a volume of proposed projects that is unlikely to move forward to completion or that result from a high concentration of proposed generation projects within a smaller sub-area of a resource development area specified in the TPP portfolios, will create barriers to achieving power purchase agreements and financing that are comparable to the barriers now being created under GIP by large area network upgrade costs.

The ISO recognizes this concern and has provided an appropriate and effective remedy, as described in Dr. Zhu's testimony. As she explains, LDNUs relieve local deliverability constraints that affect generators located on a few buses electrically close to each other and that should not, due to their local configuration, trigger high cost upgrades. If the ISO finds, during the interconnection study process, that the geographic or electrical pattern of interconnection requests within a sub-area of a TPP portfolio resource area triggers an exceptionally costly local network upgrade, then the limiting constraint would be classified as an area deliverability constraint since it will affect a substantial portion of the proposed generation projects within the relevant TPP portfolio area.

As Dr. Zhu explains, the ISO would identify such a situation and make the appropriate classification as part of the Phase I study process. Once the constraint is classified in this manner, the network upgrades needed to mitigate it would not appear as LDNUs associated with the generation projects in the area.

B. Participating TO Up-Front Funding for Delivery Network Upgrades

Under GIP Section 9.3.3, a participating TO could commit to up-front fund network upgrades that the participating TO is required to construct and for which interconnection customers are assigned cost responsibility. In such situations, the interconnection customer would be relieved of the obligation to make the second and third financial security postings for such upgrades. This provision is not included in

GIDAP Appendix DD. Although the issue was discussed during the TPP-GIP integration initiative, some stakeholders questioned the rationale for eliminating the participating TO up-front funding option as the tariff language was being developed.

During the early meetings when the ISO's straw proposals were first vetted with stakeholders, the ISO made it clear that integrating the generation interconnection process with the TPP involved a significant paradigm shift with which the concept of participating TO upfront funding for network upgrades was not compatible. Specifically, the GIP participating TO funding option caused a disconnection between the TPP and the GIP because large participating TO-funded network upgrades developed in the GIP were not subject to the ISO's holistic transmission planning and the ISO Board of Governors approval process, but instead were simply included in base case planning assumptions once the generator interconnection agreement had been executed and the up-front funding provisions accepted by the Commission in the proceeding in which the non-conforming interconnection agreement was filed. Furthermore, participating TOs had the discretion to choose particular generation interconnection projects to which to grant up-front funding, creating the possibility of discrimination among potentially similarly situated interconnection requests.

In the context of the GIDAP, such discretionary granting of benefits to specific projects would tend to confound key elements of the GIDAP proposal designed to incentivize interconnection customers to elect Option (A) or (B) based on the strengths and merits of their projects and to allocate TP Deliverability based on project development milestones as objective indicators of project viability. Finally, generating facilities with network upgrades funded by the participating TO would be more likely to enter into generation interconnection agreements simply to preserve the up-front funding benefit, regardless of the other factors that the GIDAP would consider regarding the viability of the project. This would add to the backlog of customers remaining in the ISO's queue without necessarily making progress towards construction milestones.

Thus, maintaining participating TO up-front funding of network upgrades would not be consistent with the GIDAP objectives to facilitate a holistically-planned transmission network to meet public policy goals, and provide a framework for allocating TP Deliverability to projects that align most efficiently with the development of public policy-driven transmission approved through the TPP.

C. Limitation on Reimbursement for Network Upgrades

As discussed above in Section II.F(2) of this transmittal letter, the GIDAP places a repayment limitation on recovery of RNU costs. In the stakeholder process, and particularly at the March 23, 2012 meeting before the ISO Board of Governors, some stakeholders from the generator community argued that this dollar repayment amount for RNUs was too low, while other parties, particularly parties from non-CPUC jurisdictional load-serving entities, argued that the dollar reimbursement amounts were too high and did not sufficiently rein in ratepayer cost responsibility for repayment to

interconnecting generators. The ISO contends that these disparate positions help to illustrate that the GIDAP proposal has struck the right balance of interests with respect the desire of interconnecting generators for cash repayment and the desire of ratepayer constituents who pay the ISO's transmission access charge to place appropriate cost limitations on such repayments. Moreover, as explained above, the ISO's analysis of recent RNU cost data that was used to establish the \$60,000 per MW of installed capacity upper limit demonstrates that over 70 percent of all project capacity would have their RNU costs fully reimbursed, which the ISO finds to be convincing evidence that the limit effectively protects ratepayers against excessive costs without imposing an undue burden on project developers.

D. The ISO's Deliverability Assessment

20integration%20-%20stakeholder%20comments.

The California Wind Energy Association ("CalWEA") participated actively in the TPP-GIP integration stakeholder process and submitted several versions of comments in response to the ISO's straw proposals and draft final proposals. CalWEA expressed support for many of the overall design objectives, and made suggestions that are consistent, at high level, with the final proposal approved by the ISO Board of Governors. However, CalWEA expressed such fundamental concerns with the ISO's on-peak deliverability assessment methodology, along with some later-developed design elements, that towards the end of the stakeholder initiative CalWEA no longer supported the proposal. 150

CalWEA's concerns with the ISO's on-peak deliverability assessment methodology are misplaced. Essentially, CalWEA's recommendations as to methodology would increase the amount of generation within a constrained grid area that is designated as "deliverable," but this would come at the cost of reducing the effectiveness of the resource adequacy program. Moreover, the ISO's fundamental deliverability methodology with which CalWEA takes issue, which is used not only in the

For example, in comments submitted to the ISO on January 31, 2012, CALWEA agreed with the concepts that TPP Deliverability should be allocated based on readiness milestones, that interconnection requests meeting milestones should be allowed to park and participate in the next cycle, and that the ISO should base Phase I delivery network upgrades costs on a portion of the large delivery network upgrades being triggered by the cluster. CalWEA's January 31 comments can be accessed on the ISO website at http://www.caiso.com/Documents/CalWEAComments-SecondRevisedStrawProposal_TransmissionPlanning_GeneratorInterconnectionIntegration.pdf. All written stakeholder comments submitted during the ISO's TPP-GIP integration initiative are posted to the ISO's webpages for this initiative, and can be accessed at http://www.caiso.com/Documents/Transmission%20planning%20and%20generator%20interconnection%

See the comments that CalWEA submitted to the ISO on March 1, 2012, which are available on the ISO website at http://www.caiso.com/Documents/CalWEA_Comments_TransmissionPlanning_GeneratorInterconnection ProceduresIntegrationDraft%20Final%20Proposal.pdf.

generation interconnection process but also in the ISO's transmission planning process, is beyond the scope of and is not modified by this TPP-GIP initiative.

CalWEA's comments about the deliverability assessment methodology do not reflect an accurate understanding of the methodology and its importance for ensuring the effectiveness of the resource adequacy program. CalWEA recommends a number of changes to modeling assumptions in the deliverability studies that would make it easier for more generating capacity to be found to be deliverable in an area, with the practical result that under certain realistic stress conditions the ISO would not be able to utilize the full amount of resource capacity to meet load. Specifically, CalWEA states that "the import dispatch on a particular intertie should be limited to the Maximum Import Capacity (MIC) of that intertie," and that "the dispatch level of an existing inside-CAISO-BAA generator must limited to the assigned deliverability level for that generator." However, MIC is expressly used for import assumptions in the ISO's methodology, and other than intermittent generation, qualified capacity is also expressly used as the maximum generation output assumption in the ISO's methodology.

CalWEA also suggests, without support or rationale, that wind generation should be modeled at "30% of nameplate capacity as opposed to the 40% to 64% nameplate capacity as typically assigned by the CAISO." CalWEA overlooks the fact that the ISO's deliverability study methodology is based on ensuring that generation in a generation pocket is deliverable 80 percent of the time during summer peak load hours. Therefore, for wind generation, the ISO studies a production level during summer peak load hours that will ensure this level of deliverability is feasible over 80 percent of the rate of production levels used to calculate its qualified capacity when it is needed.

CalWEA also suggests that the ISO's assessments of Category C contingencies under "super-stressed" conditions are unnecessary. The fact is, however, that the ISO required by reliability standards of the North American Electric Reliability Corporation ("NERC") to analyze these conditions as part of its interconnection studies. Finally, CalWEA accuses the ISO of "refusing to take into consideration" lower cost solutions to criteria violations, such as congestion management or the use of special protection schemes ("SPS") and load shedding. These recommendations are also inappropriate, since the ISO has often considered and adopted SPS for Category C contingencies. Congestion management is not a viable option for these contingencies, however, because curtailed generation is not available for resource adequacy purposes.

As a practical matter, the ISO's proposal addresses many of CalWEA's concerns with the GIP and the high costs of DNUs being driven by queue cluster generation in various resource areas. The Commission should not consider CalWEA's challenges to

¹⁵¹ *Id.* at Attachment, p. 3.

¹⁵² *Id.*

the ISO's deliverability assessment methodology as raising fundamental flaws in the ISO's TPP-GIP integration proposal.

E. "First-Mover, Late-Comer" Provisions

In the stakeholder process to develop the GIDAP proposal, the ISO agreed to include "first-mover, late-comer" provisions, based on the same principles on which the Midwest ISO adopted comparable provisions accepted by the Commission. The idea behind "first-mover, late-comer" provisions is that when an Option (B) generating facility ("project 1") pays for network upgrades without cash reimbursement, and those upgrades provide transmission capacity beyond the needs of project 1 which then reduce the need for network upgrades for a generating facility ("project 2") in a subsequent cycle, project 2 would reimburse project 1 for a share of the cost of project 1's upgrades, in proportion to project 2's flow impacts on those facilities. In developing the revised tariff provisions for the GIDAP, however, the ISO discovered that these "first-mover, late-comer" provisions would never be triggered due to the introduction of the Option (A) and Option (B) provisions and the design of the TP Deliverability allocation process in the GIDAP.

This is because the extra capacity of the delivery network upgrades paid for by project 1 will become part of the overall transmission capacity and therefore part of TP Deliverability that will be allocated to eligible Option (A) and (B) generating facilities in the next cycle, and, according to the GIDAP construct, will not be paid for by these generating facilities. Thus the design of the GIDAP allocation process would always lead to the result that any extra TP Deliverability created by a customer-funded ADNU would be allocated to eligible projects in a subsequent TP Deliverability allocation cycle. Regardless of whether the generating facility in the subsequent cycle is Option (A) or Option (B), the facility would not be responsible for the cost of ADNUs under the GIDAP structure if it is allocated TP Deliverability. Therefore the ISO would not collect funds from the later project 2 with which to reimburse the earlier project 1.¹⁵⁴

The ISO also considered whether ratepayer funds should be used to compensate project 1 for project 2's utilization of the ADNU paid for by project 1. However, this approach would undermine a fundamental objective of the GIDAP: to limit ratepayer exposure to the costs of major deliverability upgrades to transmission additions or upgrades approved in the TPP. The whole reason why the ADNU needed to be funded by project 1 was because there was not sufficient ratepayer funded transmission capacity – as calculated from the existing transmission grid as modified by approved

¹⁵³ Midwest Independent Transmission System Operator, Inc., 129 FERC ¶ 61,301, at P 29 (2009).

The same outcome would result for an LDNU because, again, subsequent projects that utilize the additional TP Deliverability would utilize it as a result of the allocation process and would have no cost responsibility for the LDNU. Although one could argue that projects allocated TP Deliverability do have financial security posting requirements associated with LDNUs, such postings are fully refundable and would not be used to compensate project 1 for the cost of its upgrades.

transmission additions and upgrades up through the most recent comprehensive transmission plan – to provide deliverability to project 1. Once constructed, the ADNU will be included in a subsequent TPP along with project 1, and the unused deliverability it provides will be available for allocation in the TP Deliverability allocation process. If project 2 receives an allocation of TP Deliverability and the ISO were to require ratepayers to reimburse project 1 for a portion of the cost of an ADNU, then ratepayers would be required to fund a potentially costly network upgrade that was not found to be needed under the TPP criteria. In this manner, a first mover could create a situation where ratepayers are required to reimburse some of the cost of an ADNU that was never approved in the TPP. The inefficiency of such an outcome is especially obvious in a situation where the customer-funded ADNU does not even support generation projects in any of the TPP portfolio study areas. Project 1 could decide to interconnect in an area of the grid that was not designated as an area for generation development to meet the public policy requirements address in the TPP. Yet the ADNU it pays for could create extra capacity in that area that would be allocated as available TP Deliverability to subsequent projects. The ISO believes that ratepayer reimbursement to project 1 in such a situation would clearly be inappropriate.

With regard to RNUs, the ISO believes that implementing "first-mover, late-comer" provisions also would not be appropriate. First of all, based on historical estimates, roughly 70 percent RNU costs will be fully reimbursed. Second, if a generating facility is responsible for multiple facilities that may comprise its RNUs, it would be arbitrary to assign any customer-funded portion of the costs to specific facilities for purposes of tracking cost shares of subsequent projects. Third, most RNUs will be specific to an individual project, or potentially a few projects on network nodes very close together, and so in most cases they would provide little or no benefit to subsequent projects. Fourth, it would be extremely complicated and to a large extent arbitrary to try to track the flow impacts of all new projects on the small amounts of incremental capacity created by RNUs that represent portions of the RNU capacity that is not reimbursed to the interconnection customers, with very minor financial benefits resulting from such efforts.

As a result of the above considerations, the ISO has concluded that "first-mover, late-comer" provisions, though conceptually appealing, would not be consistent with the GIDAP proposal because, given the design of the TP Deliverability allocation process and the Option (A) and Option (B) distinction, these provisions would never be triggered. Since the Commission has previously found that allocation of merchant CRRs commensurate with the incremental CRR capacity added to the ISO grid is just and reasonable compensation to a party that bears the cost of merchant transmission projects, the ISO is not proposing to also include "first-mover, late-comer" provisions in the GIDAP filing.

IV. Effective Date

The ISO requests that the tariff revisions contained in this filing be made effective sixty-one (61) days after the date of this filing, *i.e.*, July 25, 2012. This timing is critically important to the carefully phased coordination of studies between the transmission planning process and the Phase I and II studies for queue clusters 5 and 6.

As Dr. Zhu explains,¹⁵⁶ the cluster 5 Phase I study must be completed by January 2013 so that the Phase II study can begin in May 2013, which is two months before the cluster 6 Phase I study begins. This timing is important to ensure coordination between clusters 5 and 6 and also to provide cluster 5 customers sufficient time between the Phase I and Phase II studies to select Option (A) or (B) and to post the appropriate financial security deposit.

In order for the cluster 5 Phase I study to be completed by January 2013, the study must begin as promptly as possible. However, as discussed above and described in Dr. Zhu's testimony, cluster 5 interconnection customers will have the opportunity to withdraw from the queue within ten days of a Commission order on this proposal and with a full refund of their initial study deposit (less actual expenditures). Thus, the cluster 5 Phase I study cannot begin until the ten-day withdrawal period is completed. If the date of the Commission order is later than July 25, 2012, the Phase I study period will be compressed and the required mid-January completion date will be in danger of slipping, which will throw off the entire schedule.

If the date of the Commission order is later than July 25, the ISO will either have to make some problematic adjustments to the planned schedules for cluster 5 and cluster 6 interconnection study processes, or forego application of the new GIDAP to cluster 5 entirely and process the roughly 17,000 MW of new interconnection requests under the current GIP provisions. Adjustments to the planned study schedules would mean that the Phase I study period will be compressed and the required mid-January completion date will be in danger of slipping. Pushing out the cluster 5 Phase I study results will delay the beginning of the cluster 5 Phase II studies, thereby either delaying the cluster 6 Phase I study development, or compromising the coordination between the study assumptions used in transmission planning and the cluster 5 and cluster 6 interconnection studies.

Alternatively, treating cluster 5 under the current GIP tariff instead of the GIDAP would forego, for a significant volume of new interconnection requests, the opportunity to apply GIDAP's more effective cost responsibility incentives to these projects in order to encourage them to select efficient points of interconnection and encourage non-viable projects to withdraw from the queue sooner. The ISO's current process would perpetuate the requirement for transmission ratepayers to fully reimburse

interconnection customers in cash for all network upgrades needed by projects that achieve commercial operation, wherever the projects are located and regardless of whether the interconnection costs align with the benefits derived by the system from the generation addition.

The ISO understands that this proposed coordination of its two major infrastructure improvement procedures is complex. However, the ISO has gone to great lengths to involve its stakeholders in the development of the GIDAP, and has attempted to balance competing interests wherever possible, including the development of proposed tariff language. It is hoped that the ISO's efforts in this regard will narrow the focus of parties' comments and possible protests in this docket and that this will facilitate an order within the requested 61-day time period.

V. Communications

Correspondence and other communications regarding this filing should be directed to:

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VI. Service

The ISO has served copies of this filing on the CPUC, the California Energy Commission, and all parties with Scheduling Coordinator Agreements under the ISO tariff. In addition, the ISO has posted a copy of the filing on the ISO website.

VII. Contents of this Filing

In addition to this transmittal letter, this filing includes the following attachments:

Attachment A	Tariff Roadmap
Attachment B	Prepared Direct Testimony of Songzhe Zhu (Exhibit No. ISO-1)
Attachment C	Prepared Direct Testimony of Deborah A. Le Vine (Exhibit No. ISO-2)
Attachment D	Clean Tariff Sheets for Revisions to ISO Tariff Appendix A and for the GIDAP (ISO Tariff Appendix DD)
Attachment E	Clean Tariff Sheets for the GIDAP LGIA (ISO Tariff Appendix EE)
Attachment F	Clean Tariff Sheets for GIDAP SGIA (ISO Tariff Appendix FF)
Attachment G	Redlined Revisions to ISO Tariff Appendix A and for the GIDAP
Attachment H	Redlined GIDAP LGIA
Attachment I	Redlined GIDAP SGIA
Attachment J	List of Key Dates in the Stakeholder Process
Attachment K	ISO Governing Board Memorandum
Attachment L	Timeline for Revised Transmission Planning Process

VIII. Conclusion

The ISO respectfully requests that the Commission accept the tariff revisions proposed in this filing effective as of July 25, 2012.

Respectfully submitted,

Baldassaro "Bill" Di Capo Senior Counsel Judith Sanders Senior Counsel California Independent System Operator Corporation 250 Outcropping Way Folsom, CA 95630 /s/ Michael Kunselman Michael Kunselman Bradley R. Miliauskas Alston & Bird LLP The Atlantic Building 950 F Street, NW Washington, DC 20004

Counsel for the California Independent System Operator Corporation

Generator Interconnection and Deliverability Allocation Procedures (GIDAP) Attachment A

Process Outline and Roadmap

This process outline and roadmap presents the flow of GIDAP activities from the perspective of an interconnection customer's generation project participating in a specific queue cluster. A new queue cluster is opened annually, and the entire process (up to but not including negotiation and execution of the interconnection agreement) takes roughly two years, which means that the GIDAP cycles for consecutive queue clusters will overlap as the GIP cycles do today. This outline does not try to represent the alignment of multiple overlapping GIDAP cluster cycles nor the alignment of the GIDAP with the ISO's annual transmission planning process (TPP). Please consult Attachment 1 to Dr. Zhu's testimony for a visual depiction of the alignment of the GIDAP cycles for consecutive queue clusters with each other and with the annual cycles of the TPP.

In comparing the GIDAP to the existing GIP, this process outline and roadmap focuses on the substantive provisions of each process and does not indicate any changes in the timing of the various activities. In general the ISO has attempted to retain the GIP timing, both for each of the major elements of the process and for the overall duration of the process, and has changed the timing only where necessary to allow sufficient time for new or modified activities or to better align with the TPP.

At a high level, the GIDAP and the GIP are structurally very similar. Both processes are built on the same sequence of major activities and interconnection financial security postings, with changes to many of the details as summarized in the table below and described in detail in this filing.

- 1. A window for submitting interconnection requests;
- 2. A Phase I study process;
- 3. A post-Phase I period for customers to review Phase I results, make key decisions affecting their participation in Phase II, and make the first interconnection financial security posting;
- 4. A Phase II study process;
- 5. A post-Phase II period for customers to review Phase II results, make key decisions affecting their interconnection agreements, and make the second interconnection financial security posting; and
- 6. Negotiation and execution of interconnection agreements.

Sequence of GIDAP activities	Comparison to existing Generator Interconnection Procedures (GIP)	
Interconnection customers submit interconnection requests for a new queue cluster ("cluster N"), and post study deposits.	Timing will change to align with ISO's transmission planning process (TPP).	
	No changes proposed to request submission and study deposit requirements.	
ISO performs Phase I studies, to identify:	GIDAP classifies each Delivery Network Upgrade as either LDNU or ADNU, to distinguish "area" DNU mainly identified and approved in the TPP, from "local" DNU identified in the GIDAP study process.	
RNU and LDNU for all generation projects in the cluster, and		
Incremental ADNU for an amount of new generation in each study area that exceeds the TP Deliverability inherent in the latest transmission plan by enough MW to trigger a significant network upgrade for the area.	The ADNU concept provides the means for TPP, using the public policy-driven transmission category, to provide for deliverability needs for new generation development in TPP resource portfolio areas, thus bringing the approval of major ratepayer-funded transmission under a	
When existing queue volume is very large in a grid area, Phase I study will model just enough new generation to exhaust available TP	single holistic process (TPP).	
Deliverability and trigger the next significant incremental ADNU, rather than studying entire MW requested and driving unrealistic upgrades.	Whereas GIP Phase I would model the entire MW amount requesting deliverability status in a queue cluster to identify all DNU needs, GIDAP will model more reasonable MW amounts in areas where the queue is very large.	
	Other aspects of Phase I study process remain the same as in GIP.	

Sequence of GIDAP activities	Comparison to existing Generator Interconnection Procedures (GIP)	
ISO provides Phase I results to customers. Projects seeking full capacity or partial capacity deliverability status	Phase I provides cost caps for RNU and LDNU, comparable to today's GIP, for all projects.	
elect Option (A) or (B).	GIDAP introduces Options (A) and (B) to allow projects to elect different paths in Phase II to fit their business models.	
Option (A) projects declare their need for ratepayer-funded deliverability.	In contrast to today's GIP, Phase I cost estimates for incremental	
Option (B) projects declare willingness and ability to self-fund DNU without cash reimbursement.	ADNU do not provide cost caps for the Option (B) projects that might eventually be required to fund them. This is consistent with the design of Options (A) and (B).	
Projects continuing to Phase II make first financial security posting. Projects electing Option (A) post security based on Phase I RNU and LDNU needs. Projects electing Option (B) post security based	Projects have options to modify their MW size or deliverability status, comparable to today's GIP.	
on Phase I RNU and LDNU needs, plus cost estimate for their share of incremental ADNU needs for their study area.	Apart from different posting requirements for (A) and (B) projects with regard to ADNU, the posting requirements, including the security posting for PTO interconnection facilities, remain essentially the same as under the existing GIP.	
ISO performs "reassessment study" to reflect status changes of	New feature introduced with GIDAP.	
earlier queued projects in the model and the study assumptions to be used for upcoming Phase II studies.	Does not affect cluster N projects directly, but will affect the assumptions for their Phase II studies.	
	The reassessment may indicate a need to update network upgrade requirements for earlier queued projects, and may lead to GIA revisions for those earlier queued projects.	
ISO performs Phase II studies, to identify:	Study model for Phase II study aligns with the (A) versus (B) distinction, such that (A) projects fully utilize the available TP Deliverability, so that (B) project will drive incremental ADNU.	
RNU and LDNU for all generation projects in Phase II, and		
Incremental ADNU for the Option (B) projects, assuming (worst case) that none of the TP Deliverability inherent in the latest transmission plan will be available for them.		

Sequence of GIDAP activities	Comparison to existing Generator Interconnection Procedures (GIP)
ISO provides Phase II results to customers. Customers with active projects in queue, including both prior queue and new cluster, submit affidavits attesting to progress on specified development milestones, for ISO's use in preparation for the allocation of TP Deliverability. ISO requires affidavit information to determine eligibility of projects to receive and retain allocations of TP Deliverability.	Phase II costs for RNU and LDNU are compared against Phase I costs to determine updated cost caps for these facilities, comparable to today's GIP, for all projects. There are no cost caps on ADNU, but these costs affect only those Option (B) projects that are required to pay for the ADNU. As in the GIP, there are no cost caps for PTO interconnection facilities.
 ISO determines MW amounts of TP Deliverability inherent in the latest transmission plan for each study area of the grid, and performs allocation of TP Deliverability to eligible generation projects. Step 1. ISO reserves some TP Deliverability for prior commitments of deliverability, e.g., for earlier queued projects. Step 2. ISO allocates any remaining TP Deliverability to eligible projects in current cluster or parked from prior cluster. Both (A) and (B) projects in the current cluster are eligible on an equal basis. Where demand for TP Deliverability by eligible projects exceeds the amount available, projects are scored based on achieved development milestones and ISO allocates TP Deliverability to highest scoring projects. 	Allocation of TP Deliverability is new to GIDAP. This design element is the mechanism whereby interconnection customers may utilize ratepayer-funded transmission to meet deliverability needs of their projects. TP Deliverability allocation supports the objectives of better management of large queue volumes, reduced ratepayer exposure to excessive transmission upgrade costs, and provision of deliverability created by ratepayer funded upgrades to the most viable generation projects in TPP resource portfolio areas. Interconnection customers whose projects are not allocated TP Deliverability may still interconnect with their desired deliverability status under Option (B).
ISO provides TP Deliverability allocation results to customers for eligible projects. Projects have various options open to them based on the allocation results and whether they are (A) or (B) projects. Option (A) projects have options to "park" their interconnection requests and participate in the TP Deliverability allocation process for the next queue cluster. Parking for one cycle allows reasonable time for projects to qualify for TP Deliverability while preventing them from remaining in queue indefinitely. (Other options available at this stage are fully described in the filing.)	These provisions are new under the GIDAP. Projects electing to withdraw from queue at this point have opportunities comparable to the GIP for partial refund of the first financial security posting, plus additional eligibility conditions for (A) and (B) projects to allow them to respond to new GIDAP outcomes.

Sequence of GIDAP activities	Comparison to existing Generator Interconnection Procedures (GIP)
Customers inform ISO of their elections on any of the available post-	These provisions are mostly new under the GIDAP.
allocation options.	Second financial posting requirement are, for the most part,
ISO uses this information to prepare updates to Phase II study	comparable to the requirements under the existing GIP.
reports, to reflect impacts of project elections on network upgrade requirements.	Projects that elect to "park" until the next cycle have 12-month extension to make full second posting.
Customers make the second financial security posting.	January 1981
Customers enter into LGIAs or SGIAs.	Process is unchanged from GIP.
Customers make third financial posting at start of construction activities for network upgrades or PTO interconnection facilities.	Process and requirements are unchanged from GIP, except for the addition of provisions to accommodate an Option (B) project that must pay for its DNU and elects to have an independent company, rather than the interconnecting PTO, construct the facilities.

Attachment B – Prepared Direct Testimony of Songzhe Zhu Generation Interconnection and Deliverability Allocation Procedures Amendment Filing California Independent System Operator Corporation

May 25, 2012

1 2	UNITED STATES OF AMERICA BEFORE THE					
3 4		FEDERAL ENERGY REGULATORY COMMISSION				
5		California Independent System) Docket No. ER12000				
6		Operator Corporation)				
7						
8		PREPARED DIRECT TESTIMONY OF				
9 10		SONGZHE ZHU				
11						
12 13	Q.	Please state your name and business address.				
14 15	A.	My name is Songzhe Zhu. My business address is California ISO, 250 Outcropping				
16		Way, Folsom, California 95630.				
17	•					
18 19	Q.	By whom and in what capacity are you employed?				
20	A.	I am employed by the California Independent System Operator Corporation ("ISO") as a				
21		Lead Regional Transmission Engineer. I have held this position from February 2012 to				
22		the present time. Prior to that, I was a Senior Regional Transmission Engineer at the ISO				
23		from September 2006 to February 2012. My job responsibilities in this position include				
24		performing complex engineering studies to anticipate, identify, and resolve problems or				
25		potential problems with the southern California power grid, conducting planning studies				
26		and overseeing and approving transmission projects proposed for the ISO Controlled				
27		Grid, and leading and performing interconnection studies for generation interconnection				
28		projects.				
29 30	Q.	Please describe your professional and educational background.				
31	A.	I received a PhD in electrical engineering from Iowa State University in 2000.				
32		Previously, I received an MSEE (Master of Science in Electrical Engineering) from				
33		Nanjing Automation Research Institute in China in 1996 and a BSEE (Bachelor of				
34		Science in Electrical Engineering) from Xian Jiaotong University in China in 1993.				
35						
36		After graduating from Iowa State University in 2000, I worked for Perot Systems as an				
37		Application Specialist from March 2000 to August 2000. While at Perot Systems, I				

1		developed various software applications to facilitate trading and settlement of the hour-
2		ahead and day-ahead energy market for the California Power Exchange. Thereafter, from
3		August 2000 to May 2006, I worked as a software engineer and then as a senior software
4		engineer at Siemens PT&D, in San Jose, California. As a software engineer, my job
5		function was to design, develop, integrate, and implement advanced power applications
6		software for use in energy management systems ("EMS"). In May 2006, I joined the
7		ISO, working in the EMS Information Technology division as an EMS Engineering
8		Specialist. In September 2006, I transferred to my current position as Senior Regional
9		Transmission Engineer.
10 11 12	Q.	What is your involvement with the generation interconnection process?
13	A.	I have been performing generation interconnection studies since September 2006. I am
14		the designated engineer for all generation interconnection projects in the northern part of
15		the Southern California Edison area. I review and validate the Interconnection Requests,
16		attend scoping meetings, perform and review interconnection studies, draft and issue
17		study reports, attend results meetings, and review Generator Interconnection Agreements
18		
19		I started to lead the deliverability assessment for new generators at the ISO in 2007.
20		Since 2010, I have coordinated the generation interconnection cluster studies for all study
21		areas among the ISO and Participating TOs.
22		
23		I have been involved in the generation interconnection process reforms at the ISO since
24		2010, focusing on the development of study process and timeline, and technical aspects
25		of the process.
26 27 28 29	Q.	How were you involved in the generation interconnection/transmission planning process integration initiative?
30	A.	I am part of the ISO team that worked on the initiative. In particular, I helped design the
31		deliverability assessment and the study methodologies that will be used to identify
32		network upgrades for interconnection requests in Clusters 5 and beyond that will be

subject to the generation interconnection and deliverability allocation process ("GIDAP").

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Q. What is the purpose of your testimony?

As one of the engineers who will conduct interconnection studies under the new GIDAP proposal, I will describe the study methodologies and other technical details about the process. My testimony addresses three areas: 1) a description of the new deliverability concepts being introduced with GIDAP and study methodology changes required by the new process; 2) the GIDAP timeline and details about study steps; and 3) similarities and differences between GIDAP and GIP studies. Ms. Deborah Le Vine, who is also a member of the ISO team working on the GIDAP initiative, will provide testimony about customer information flows, impacts on generator interconnection agreements, queue management, and other interconnection customer-related issues.

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Q. Please provide a general description of the proposed GIDAP.

With GIDAP, the ISO proposes to better align the transmission planning process ("TPP") A. with the generation interconnection process by allocating the generation deliverability provided by the transmission capacity approved in the annual Transmission Plan to proposed generating facilities in the interconnection queue clusters that meet certain viability criteria and are located in resource areas for which the ISO has identified transmission upgrades and additions to facilitate the 33% Renewables Portfolio Standard ("RPS") requirements. Proposed generating facilities that receive an allocation of the electrical or geographic area transmission capacity needed to provide the requested level of deliverability of their output to the ISO grid will not be required to fund such upgrades. Customers receiving such an allocation will still fund smaller, more local delivery network upgrades identified for their specific generating facilities or a group of facilities, and will receive cash repayment after they achieve commercial operation. All customers will initially fund and then will receive cash repayment of up to \$60,000 per MW for reliability network upgrades. Generating facilities that do not receive a deliverability allocation may continue to construction and operation but must fund, without cash repayment, the network upgrades required to provide the requested level of

deliverability. These projects must also fund reliability network upgrades and receive cash repayment for up to \$60,000 per MW. Central to the GIDAP proposal is a more realistic assessment of the delivery network upgrades and upgrade costs likely to be needed in areas where queued generation greatly exceeds existing transmission capacity approved in the TPP. This data is used to inform Interconnection Customers about the costs of locating in particular geographic areas, which will assist them to make business decisions.

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Q. Please explain why the cash repayment for reliability network upgrades is limited to \$60,000 per MW.

The repayment limit of \$60,000 per MW for reliability network upgrades (RNUs) is appropriate for the objective of this provision – namely to limit ratepayer exposure to excessive RNU costs, while covering all reasonable RNU costs for interconnection customers. The \$60,000 per MW value is confirmed based on an analysis conducted by the ISO. To determine the repayment limit, the ISO calculated the average Phase II RNU cost per installed MW of generating capacity for all transition cluster projects and all projects in Queue Clusters 1 and 2. This data set – which is the most complete data set available since Phase II studies are not yet finished for Clusters 3 and 4 – includes more than 14,500 MW of proposed generating facilities. In addition to being the approximate arithmetic mean of RNU costs for this set of projects, because of the shape of the cost distribution the repayment limit of \$60,000 per MW is also the 71st percentile of the cost distribution, i.e., 71 percent of the total project MW included in the historical data set had per-MW RNU costs below \$60,000. Thus, the \$60,000-per-MW limit can be expected to result in full cash repayment for RNUs for the great majority of projects, and will provide an incentive for interconnection customers to avoid siting their projects in locations where the costs of RNUs needed to support the interconnections will be inappropriately high.

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Q. Please explain the new deliverability concepts that are being introduced with GIDAP.

A. To efficiently utilize transmission capacity approved in the transmission planning process 1 2 for proposed generating facilities seeking full or partial deliverability status, the ISO has developed three new concepts: Transmission Plan Deliverability (TP Deliverability), 3 Area Delivery Network Upgrades (ADNUs), and Local Delivery Network Upgrades 4 5 (LDNUs). The ADNUs and LDNUs together comprise what are simply called Delivery Network Upgrades (DNUs) under the current GIP. As I explain further below, the new 6 ADNU and LDNU subcategories of DNUs are needed under the GIDAP to deal with 7 differences in how these facilities will be identified in the ISO's study processes, as well 8 9 as how they will be funded.

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Before interconnection customers enter Phase II of the GIDAP, they will be required to choose either Option (A) or Option (B) regarding the need for TP Deliverability, which are also new concepts under GIDAP. Option (A) interconnection customers are those customers who cannot proceed to construction of their proposed generating facility without an allocation of TP Deliverability. Option (B) interconnection customers are those willing to construct the proposed generating facilities without a TP Deliverability allocation. Those customers will be responsible to pay for delivery network upgrades (ADNUs and LDNUs) without cash repayment. Option (B) customers will be eligible for congestion revenue rights as compensation for the network upgrades that they have funded.

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Q. Please provide more details about each of these new GIDAP concepts.

23 A. TP Deliverability is the capability, measured in MW, of the ISO Controlled Grid as 24 modified by transmission upgrades and additions identified in the annual Transmission 25 Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified 26 geographic or electrical area of the ISO Controlled Grid. After the ISO completes the 27 identification of needed transmission additions and upgrades to be included in the annual 28 29 Transmission Plan, the ISO will calculate the amount of transmission capacity in each 30 area that can provide Full Capacity or Partial Capacity Deliverability Status to additional Generating Facilities. The resulting amount of capacity at this point represents the 31

maximum amount of TP Deliverability (i.e., prior to adjustments the ISO will make in the 1 first step of the allocation process, as described below) that could be allocated to 2 interconnection customers' projects in that area. 3 4 5 ADNUs are upgrades needed to provide deliverability for generation in a large geographic or electrical area to the aggregate of ISO load. This will be an area that has 6 been identified in a resource portfolio, for use in the TPP, as a geographic and 7 electrically-connected study area (e.g., a Competitive Renewable Energy Zone or 8 9 "CREZ") where an approximate amount of generation is expected to develop in response to a public policy requirement. ADNUs are needed to relieve deliverability constraints 10 on generators located anywhere in a particular study area or possibly in several such 11 areas. The need for the ADNUs is dependent more on the total generation amount in the 12 area, and less on where the generators are specifically interconnected inside the area. 13 ADNUs could be identified in either TPP or GIP studies, as explained below. The 14 Tehachapi Renewable Transmission Project, Sunrise Powerlink, and Colorado River-15 Devers-Valley transmission projects currently under development are examples of 16 projects that could have been considered ADNUs if identified under the proposed TPP-17 GIP Integration paradigm. 18 19 LDNUs are upgrades needed to provide deliverability for smaller amounts of generation 20 within a smaller area to the ISO Controlled Grid. LDNUs are driven by deliverability 21 constraints for a small group of generators electrically close to each other. LDNUs are 22 23 more specific to the actual interconnection points of the generators. Therefore, LDNUs are typically identified only in the GIP studies and not in the TPP. 24 25 Q. How will the studies conducted during the current interconnection process change 26 with GIDAP? 27 A. Under the current queue cluster process, the ISO, in conjunction with the participating 28 29 transmission owners (PTOs), conducts short circuit/fault duty, steady state, and stability 30 analyses to identify the interconnection facilities and reliability network upgrades needed to interconnect the proposed generating facilities to the ISO grid. The ISO also conducts 31

on-peak deliverability assessments to determine needed delivery network upgrades if the interconnection customer requests full or partial deliverability for the generating facility capacity. The ISO also conducts off-peak deliverability studies for information purposes only, to inform interconnection customers about off-peak congestion conditions that could affect their projects. These studies are conducted during both Phase I and Phase II of the process.

The ISO will continue to conduct the reliability and deliverability studies needed to identify reliability network upgrades and delivery network upgrades in both Phases I and II of the process. However, the base case development for the studies will be different because of the GIDAP options (A) and (B) for interconnection customers to proceed with construction with or without, respectively, an allocation of transmission capacity approved through the transmission planning process, the proposed reassessment study the ISO will perform between Phase I and Phase II, and the requirements that earlier queued customers meet certain milestones and criteria to retain eligibility for ratepayer funded transmission.

Q. How will ADNUs and LDNUs be identified?

Α. Under the GIDAP, in situations where the interconnection queue volume greatly exceeds the TP Deliverability amount provided under the most recent comprehensive Transmission Plan, each Phase I study will identify incremental ADNUs needed to provide deliverability for a target amount of generation above the TP Deliverability. The Phase II study will identify ADNUs only for Option (B) projects. In each Phase I and Phase II study the ISO will perform two rounds of deliverability assessments to, first, identify any transmission system operating limits that constrain the deliverability of the modeled generators, and second, determine LDNUs and ADNUs to relieve those constraints. The transmission system operating limits identified during the assessment are divided into two categories: local deliverability constraints and area deliverability constraints.

Local deliverability constraints tend to have the following attributes:

- The generators whose deliverability they constrain (i.e., generators inside the 5% shift factor circle¹ for a constraint) are all located on a few buses electrically close to each other.
- Relieving these constraints does not trigger high cost upgrades.

- Area Deliverability Constraints tend to have the following attributes:
- The generators whose deliverability they constrain (generators inside the 5% shift factor circle) are spread over at least one and possibly more grid study areas or resource areas identified in a resource portfolio used in the TPP.
- In the first round of the Phase I or Phase II deliverability assessment, relieving these constraints may trigger high cost upgrades, driven by excessively large MW amounts of new generation behind the area deliverability constraint.
- In some potential situations the ISO may classify as an area deliverability constraint a constraint that constrains the deliverability of generators electrically close to each other and is triggered by an exceptionally large volume of generation. This could occur, for example, when there is an exceptionally large volume of Interconnection Requests in a relatively smaller local sub-area within one of the resource development areas identified in the TPP portfolios and relieving the constraint requires expensive upgrades. This potential situation was raised as a concern by some stakeholders, and we determined that in such cases, if they occur, the appropriate remedy would be to reclassify the constraint as an area deliverability constraint based on the recognition that it would serve a substantial volume of generation projects within the study area.
- The categorization of ADNU vs. LDNU is based on the deliverability constraint that triggers the need of the DNU. ADNUs are transmission upgrades or additions to relieve Area Deliverability Constraints and LDNUs are to relieve Local Deliverability Constraints.

- Q. Please provide more details about the deliverability assessments that will be conducted during the Phase I and Phase II studies.
- **A.** The Phase I, round 1 deliverability assessment will start with the transmission network that includes the results of the most recent comprehensive transmission plan. The ISO

The "5% shift factor circle" corresponding to a particular transmission element is the set of modeled generators that have at least five percent flow distribution factor or flow impact on that element. In the context of both the GIP and the GIDAP, the 5% shift factor circle determines the set of projects that will be responsible for network upgrades and associated costs to mitigate overloads on the constraining transmission element.

will include and model all the active projects in queue, and preliminarily will identify the local and area deliverability constraints based on the electrical characteristics I described above. We will identify mitigations for the local deliverability constraints. At this point, if round 1 identifies a costly network upgrade that is triggered by a concentration of proposed generation projects in a local sub-area, the ISO will classify the relevant constraint as an area deliverability constraint.² The mitigations for the local deliverability constraints are classified as LDNUs. Mitigation solutions for area deliverability constraints will not be identified in round 1; instead, these constraints will inform the setup of the Phase I, round 2 deliverability assessment.

In round 2 of the Phase I deliverability assessment we will model all LDNUs from the Phase I, round 1 assessment. Then for each area deliverability constraint where the interconnection queue volume in the 5% circle greatly exceeds the TP Deliverability amount provided under the most recent comprehensive Transmission Plan, we will model an amount of generation that fully utilizes the TP Deliverability, plus a margin for study purposes, to identify any additional Delivery Network Upgrades that would be required if the total deliverability requested by generating facilities that move forward in the area exceeds the TP Deliverability by the amount of the margin. These upgrades will be classified as ADNUs.

Once we get into the Phase II studies, projects in the current cluster will have elected whether to proceed as Option (A) or Option (B). Similar to Phase I, the Phase II, round 1 deliverability assessment starts with the transmission network that includes the results of the most recent comprehensive transmission plan. Next we model all the active projects in the queue, and identify local and area deliverability constraints. We will identify mitigations for the local deliverability constraints and classify these as LDNUs but will not identify mitigation for area deliverability constraints in round 1. Then, to relieve area

As a general rule of thumb, the ISO will classify a constraint as area if it affects an amount of generation projects that would exceed the generation amount identified in the TPP portfolio for the entire larger portfolio area and the mitigation is costly. For example, if the TPP portfolio specifies 1500 MW of generation in a particular resource development area, and if the entire queue including the current cluster has 3000 MW of generation in that area, then if the constraint affects 1500 MW or more of the projects in the queue – i.e., over the total amount expected in the entire resource area – then that constraint would be classified as "area" if the mitigation solution is costly even though it affects a group of projects that are electrically close together rather than spread across the entire portfolio study area.

deliverability constraints, we will curtail Option (B) projects first, as needed to mitigate the constraint. If the Option (B) projects are not sufficient to relieve area deliverability constraints, then we will curtail Option (A) projects as needed, to determine how much TP Deliverability is available.

In the Phase II, round 2 deliverability assessment we will model all LDNUs identified in Phase II, round 1. Next we model the minimum of (1) all option (A) projects in the study area, or (2) sufficient (A) projects to fully utilize the amount of TP Deliverability available as determined in Phase II, round 1. At that point we will model all option (B) projects in the queue in the study area and identify ADNUs to mitigate the area deliverability constraints. These ADNUs will be required upgrades for the option (B) projects, assuming that the modeled amount of option (A) projects all receive allocations of TP Deliverability. As I explain below, it is possible that in the allocation process the required ADNUs for the option (B) projects could be reduced if less than the modeled amount of option (A) projects receives TP Deliverability allocations.

Q. Will there be additional studies with GIDAP?

A. Yes. There will be a multi-stage reassessment and allocation study process comprised of two main additional studies: a reassessment conducted following the completion of a cluster's Phase I study in preparation of the cluster's Phase II study (referred to as "cluster N" for clarity of this description), and a TP Deliverability allocation study for the cluster whose Phase II study was just completed and is moving into the TP Deliverability allocation process ("cluster (N-1)"). The TP Deliverability allocation study focuses on interconnection requests that have completed a Phase II study or a Facilities study prior to cluster (N-1), and its primary purpose is to determine how much of the available TP Deliverability needs to be reserved for these earlier interconnection requests and how much can be allocated to cluster (N-1). The results of the TP Deliverability allocation study are also part of the base case data used in the reassessment in preparation of the cluster N Phase II study. The multi-stage reassessment and allocation process takes into account changes in the status of generating facilities prior to cluster (N-1) since their Phase II studies were conducted and any updates on transmission upgrades from the

current TPP cycle since the approval of the previous TPP cycle's Transmission Plan.
Following the Cluster 5 Phase II study, this multi-stage process will involve an evaluation of the progress that interconnection customers prior to Cluster 5 are making with respect to the milestones in their interconnection agreements and power purchase agreements.
Starting after Cluster 6 Phase II and for subsequent clusters, the process will also include information about whether generation facilities that were previously allocated TP Deliverability under the GIDAP have met the criteria required to retain the allocation.

Q. Please provide a general overview of the GIDAP study and allocation process.

A. Attached to my testimony are two process flow charts. The first flow chart (Attachment 1) provides a high level overview of the GIDAP study and TP Deliverability allocation steps. The second flow chart provides more detail about the reassessment study and allocation steps that follow the dissemination of the Phase II interconnection study results to Interconnection Customers.

Α.

Q. What are the process and study steps illustrated by Attachment 1?

The top bars on the flow chart represent the ISO's TPP, which is an annual process spanning approximately 15 months. Each annual cycle is named for the two years that it spans. In the TPP the ISO identifies the transmission upgrades and additions needed in the current cycle, including those needed to meet the public policy requirements identified in the study plan for that cycle. These needed infrastructure improvements are described in the Transmission Plan, which is approved by the ISO Board of Governors in March of the second year of each TPP cycle. The existing transmission network that is modeled in preparation for the TPP studies, along with the new transmission upgrades and additions described in the Transmission Plan and approved by the Board, comprise the physical facilities underlying the TP Deliverability that feeds into the GIDAP allocation process (the middle bar in Attachment 1) and provides information to potential generation developers as to locations where transmission infrastructure will be available.

The interconnection process flows are represented in the lower half of the flow chart and begin with Clusters 3 and 4 entering Phase II under the existing GIP. At the same time,

the GIDAP begins with the March 2012 Cluster 5 window. In the Phase I interconnection studies, the ISO will identify RNUs and LDNUs for all Interconnection Customers in the cluster, depending on whether the customers have requested energyonly or full or partial capacity deliverability status. Determining the estimated costs for ADNUs will depend upon the number of full or partial capacity deliverability requests in an electrical area. Where the total volume of interconnection requests seeking full or partial capacity deliverability – considering all earlier-queued projects as well as projects in the current cluster – exceeds the amount of TP Deliverability provided by the transmission facilities reflected in the most recent approved Transmission Plan, the ISO will model generation up to the TP Deliverability amount, plus an additional amount of generation reasonably representing the composite of the generation in the queue that would require the next incremental level of ADNUs, in order to provide a realistic cost estimate for large delivery network upgrades. To explain this concept further, it is important to understand the concern, raised by many stakeholders, that when the total queue volume in a particular area is extremely large, the estimate of network upgrades needed to serve the total volume is not realistic because it reflects a quantity of generation that is extremely unlikely to be successfully completed. Therefore, in such areas the Phase I study will model the TP Deliverability amount plus a reasonable margin of additional generation – perhaps 50 percent more than the TP Deliverability amount – to provide informative estimates to developers, as well as their potential bilateral counterparties, of the next incremental ADNU required and associated cost if generation development in the area exceeds the TP Deliverability amount. I describe this study methodology in greater detail later in my testimony.

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The Phase I study results will provide customers with cost caps for RNUs and LDNUs, plus cost estimates as described above for ADNUs. With this information, customers must confirm their selection of deliverability status and, if they choose full or partial capacity deliverability status, elect either Option (A) or Option (B). During approximately the same time period (Q1 and Q2 2013 for Cluster 5), the Cluster 6 window will open. The Cluster 5 Phase II studies will be conducted at approximately the same time as the Cluster 6 Phase I studies.

There are several activities that will take place once the Cluster 5 Phase II and Cluster 6 Phase I studies are finished and before Cluster 6 Phase II study starts. The multi-stage reassessment and allocation study process I mentioned above is performed during this time period, shown in Attachment 1 as occurring from November 2013 through April 2014. During this period, the ISO will conduct a reassessment to reflect changes that occurred after the commencement of the Cluster 5 Phase II study in the status of projects in the queue. The first step of the reassessment will update RNU and DNU requirements for generation projects up to Cluster 4. Based on affidavit information submitted by interconnection customers, the ISO then will perform the allocation of TP Deliverability for Cluster 5. Following the TP Deliverability allocation, the RNU and DNU requirements for Cluster 5 are reassessed. The reassessment results become study assumptions later in the Cluster 6 Phase II study. More details about these activities are shown in Attachment 2.

At approximately the same time (December 2013 through April 2014), the Cluster 7 window will open and Cluster 6 interconnection customers must confirm deliverability status and select options (A) or (B) based on their Phase I study results. The reassessment and allocation period after the Cluster 6 Phase II study will be Q4 2014 through Q1 2015, and so the process repeats for Cluster 7 and subsequent cycles.

Q. What is shown in Attachment 2?

A. Attachment 2 is intended to illustrate in some detail the multi-stage reassessment study and allocation process I initially described above. The top two sets of bars show the TPP and GIP/GIDAP flows from Attachment 1. Below those bars, there is a flow chart showing the activities that will take place after Phase II for each cluster. The bottom two flow lanes depict interconnection customer activities and the point at which the reassessment and allocation results feed into the following cluster studies (in the example, the Cluster 5 reassessment and allocation results flow into the Cluster 6 Phase II study).

- Q. Can you provide additional details about the studies and activities in the first step of reassessment taking place after Phase II studies have been completed?
- A. Yes. According to the GIDAP proposed timeline and using Clusters 5 and 6 for example, 3 4 Phase II study results will be provided to Cluster 5 interconnection customers about the 5 end of November 2013. Phase II results meetings will be concluded by the beginning of January 2014. At that point, the ISO will perform the first step of the reassessment. The 6 reassessment model will reflect withdrawals of generation projects in the queue as well as 7 the transmission associated with these projects. With this information, DNUs for pre-8 9 Cluster 5 generating facilities will be updated. At the same time, pre-Cluster 5 RNUs will also be updated through a reliability reassessment. We will then add the Cluster 5 10 generation and perform a deliverability analysis to identify local and area deliverability 11 constraints. The output from this step, which will take about 30 days, will inform the 12 development of base cases that will be used in the allocation process. 13

Q. Are there other activities that take place while the first part of reassessment is being conducted?

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Yes. During this time period, interconnection customers will be required to submit 17 A. affidavits with information about milestone progress (pre-Cluster 5 projects) and project 18 19 status with respect to the tariff criteria for TP Deliverability allocation (Cluster 5 projects). For reassessments following Clusters 6 Phase II and later clusters, generating 20 facilities that have previously been allocated TP Deliverability under the GIDAP must 21 submit an affidavit regarding compliance with the tariff retention criteria. The ISO will 22 23 gather these affidavits and verify the information while the allocation base case is being developed. Based on the Cluster 5 information, the ISO will use the project status 24 25 information with respect to the criteria to assign scores to the eligible generating facilities. Ms. Le Vine provides more detail in her testimony about the affidavits, 26 information verification and eligibility scores. 27

29 Q. Please describe the steps involved in the allocation process.

The next step is allocating TP Deliverability, which consists of two parts. First, using the deliverability constraints identified in the first part of reassessment, the ISO will identify

the study areas based on area deliverability constraints and 5% distribution factor ("DFAX") circles for each constraint. Next, the ISO will adjust the reassessment base cases to model all pre-Cluster 5 generating facilities that meet the tariff threshold requirements to obtain full or partial deliverability (a purchase power agreement and generation interconnection agreement in good standing). Starting with the post-Cluster 6 Phase II reassessment and allocation, the ISO will also model Cluster 5 projects previously allocated TP Deliverability that demonstrate they meet the retention criteria. In addition, the ISO will model other commitments to provide deliverability under public policy requirements that would require some of the TP deliverability, such as expansion of the maximum import capability for resource adequacy at one or more of the interties, and allocation of as-available deliverability for distribution-connected generating facilities.³

Once these committed uses of the TP Deliverability have been modeled, the ISO will determine whether there is any TP Deliverability left to allocate to Cluster 5. This part is expected to take about 3 weeks.

If there is TP Deliverability left to allocate, the ISO will perform the second part of the allocation process. The Cluster 5 generating facilities are added to the model. A stressed dispatch is created for each area deliverability constraint during the study. To determine the deliverability allocation, MW output of the generators contributing to the deliverability constraint will be curtailed in the ascending order of the project scores on the eligibility criteria until the deliverability constraint is relieved. The remaining uncurtailed MW output represents the deliverability allocation for the constraint. This analysis is repeated for all the area deliverability constraints identified in the first step. If a generation project contributes to multiple deliverability constraints, the minimum

The ISO currently has an initiative underway to develop a process to determine amounts of distribution-connected generation (distributed generation or "DG" resources) that could be assigned deliverability for resource adequacy purposes on an as-available basis, without requiring additional network upgrades on the ISO grid and without adversely affecting existing grid-connected full capacity generating facilities or interconnection customers currently in queue that have requested deliverability status. The important and more general point for the GIDAP proposal is that in the first step of the allocation process, the ISO will take into account prior commitments to provide deliverability that may require reserving some of the TP Deliverability that would otherwise be available for allocation to the current cluster.

allocation among all constraints is the final allocation to the generation project. This part is expected to take 2 weeks.

Once the allocations have been determined, or if there is no TP Deliverability left to allocate after the first part of the allocation process, the interconnection customers will be notified and must advise the ISO within 7 days as to their course of action. Needless to say, each customer's response will likely depend on whether they obtained a TP Deliverability allocation, and different courses of action are available depending on whether they elected Option (A) or Option (B). The interconnection customer's response starts the clock on the generation interconnection agreement phase, described in Ms. Le Vine's testimony.

Q. Will the ISO conduct an additional study after the interconnection customers provide responses about how they intend to proceed?

Yes, at that point the ISO will conduct the second part of the reassessment. Based on the A. information from the interconnection customers, the ISO will determine: 1) updated ADNUs for Option (B) customers not allocated TP Deliverability; 2) updated LDNUs for all Cluster 5 projects that do not drop out of the queue following the allocation results; and 3) updated RNUs for all Cluster 5 projects that do not drop out. This step will take approximately 30 days. Then the estimated cost of and time to construct the network upgrades will be updated and included in the generation interconnection agreements for these projects.

Q. In addition to providing cost information for the interconnection agreements, how else will the information from the reassessment be used?

A. The reassessment will feed into the Phase II interconnection studies for the next cluster
27 and will also inform renewable scenario development in the next TPP cycle, which is
28 formulating its unified planning assumptions and study plan during this time period.
29 Using the Cluster 5 allocation process as an example, the allocation results and
30 reassessment study data will feed into renewable scenario development for the 2014/2015
31 TPP.

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2	Q.	Will the GIP Fast Track Process and the Independent Study Process be changed
3		under GIDAP?
4	A.	No, these processes will still be available to eligible interconnection requests.
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6	Q.	Will FT and ISP interconnection requests be eligible for TP Deliverability
7		allocation?
8	A.	Definitely not for FT projects, as this process does not offer deliverability. And yes for
9		ISP projects, although a couple comments are in order. Typically, the electrical
10		independence required for a project to use the ISP will most likely mean that the project
11		is located in an area that was not included in the resource portfolios used in the TPP and
12		would therefore not have the benefit of public policy-driven transmission capacity
13		approved in the TPP. Thus an ISP project would probably be able to receive TP
14		Deliverability only if it chose to interconnect in an area where no DNU are required, so
15		that the TP Deliverability was available based on the existing transmission system
16		without public policy-driven upgrades.
17		
18	Q.	Does GIDAP propose any changes to the study methodology used to identify
19		reliability network upgrades?
20	A.	There is no change to the study methodology used to identify reliability network
21		upgrades. However, the reassessment process includes a reliability assessment whereby
22		RNU previously identified as required for a project may be revised.
23		
24	Q.	Similarly, does GIDAP propose any changes to the study methodology used to
25		identify interconnection facilities (both for the Interconnection Customer and the
26		PTO)?
27	A.	There is no change to the study methodology used to identify interconnection facilities.
28		However, the scope of the interconnection facilities could change from the final Phase II
29		report after the reassessment.

1 Q. Can you provide an example of how the reassessment and TP Deliverability process will work?

Yes, I can. This example covers three GIDAP cycles corresponding to Clusters 5, 6, and 7. The example illustrates the complete study process for Cluster 5 and then focuses on the TP Deliverability allocation after completion of Phase II studies for Clusters 6 and 7. The example also illustrates how the ISO will assess the need for additional DNU for projects in the existing queue (serial through cluster 4) and how these projects could affect the availability of TP Deliverability for projects in later clusters. For simplicity the example focuses on a single electrical study area of the grid, where generation projects in the area all obtain deliverability benefits from and have flow impacts on the same set of ADNU.⁴ In addition, some projects in the area may or may not have flow impacts on some of the same LDNU and RNU.

A.

14 Q. Please describe the process for the first GIDAP cycle for Cluster 5.

A. The example starts with the development of the Cluster 5 Phase I study model in approximately the second quarter of 2012.

Set-up: Q2/2012, before start of the Cluster 5 Phase I study

The interconnection queue consists of projects in the existing queue (serial through cluster 4) plus projects in the new Cluster 5. Assume that an electrical study area has 15 full capacity existing queue generation projects totaling 2000 MW. Further assume there are 10 full capacity deliverability status projects in Cluster 5 in this study area totaling 1500 MW and the TP Deliverability available to the new generation is 1000 MW based on the final 2011/2012 transmission plan. Thus there are projects totaling 3500 MW in the area that could potentially utilize the 1000 MW of TP Deliverability.

Q3-Q4/2012, Cluster 5 Phase I study

In general the ISO will be addressing multiple such study areas in each GIDAP and TPP cycle, but in practical terms each electrical study area must be addressed individually for purposes of deliverability assessment, so the approach described in this example is not unrealistic.

The Phase I study models all 25 queued projects (both existing queue and Cluster 5) in 1 the reliability assessment and round 1 of the deliverability assessment. The Cluster 5 2 RNU and LDNU requirements are identified and assigned to Cluster 5 projects. 3 4 Then, in round 2 of the deliverability assessment, we will not model all 3500 MW of projects in the queue. Rather, we will model 1500 MW of new generation that is 5 representative of the 3500 MW of projects, to identify incremental ADNUs for the study 6 area. The 1500 MW represents 1000 MW of new generation that would fully utilize the 7 8 1000 MW of TP Deliverability plus a 500 MW study margin, based on the rationale I provided earlier. The generic new generation will reflect locations and resource types 9 10 comprising the 3500 MW in the queue, but will not represent specific projects in queue. Thus the 1500 MW modeled will be a similar but scaled-down resource mix to the 3500 11 12 MW actually in the queue. Suppose then that the study identifies the incremental ADNU for the 500 MW study margin with total estimated cost of \$100M. The Phase I cost rate 13 for ADNU for this study area will be \$100M divided by 500MW, or \$200,000 per MW. 14 Now assume that there is a particular project S in Cluster 5, which is a 100 MW solar 15 project requesting full capacity deliverability status. Assume further that the Phase I 16 study also identified \$7 million in LDNU cost, \$5 million for RNU cost, and \$2 million 17 for interconnection facilities specific to the project. Then its Phase I study results are: 18 ADNU cost = \$200,000/MW * 100MW = \$20M 19 20 LDNU cost = \$7MRNU cost = \$5M21 22 Interconnection Facilities (IF) Cost = \$2M, treatment of which is not modified by 23 the GIDAP. The Phase I cost cap for RNU and LDNU is \$12M. 24 25 Q1-Q2/2013, Cluster 5 Projects Moving Forward to Phase II Study 26

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Cluster 5 projects select Option A or Option B and confirm their selection of their desired deliverability status. If project S selects Option A with full capacity deliverability status, it is required to make a financial security posting for IF, RNU and LDNU costs. If

project S selects Option B with full capacity deliverability status, it is required to make a 1 financial security posting for Interconnection Facility, RNU, LDNU, and ADNU costs, 2 where the ADNU posting is based on the ADNU cost estimate above using the per MW 3 rate derived from the incremental ADNU identified in the second round of the Phase I 4 5 study. 6 Q2-Q4/2013, Cluster 5 Phase II Study Among the Cluster 5 projects in the study area, assume that 6 projects totaling 800 MW 7 8 elect Option A and 4 projects totaling 700 MW elect Option B. The final 2012/2013 transmission plan indicates 1000 MW TP Deliverability in the study area, which happens 9 to be the same amount that was calculated based on the previous 2011/2012 transmission 10 plan. This could occur, for example, if the TPP resource portfolio for the study area was 11 not expanded for 2012/2013 relative to 2011/2012, and no new generation with full 12 13 capacity deliverability status achieved commercial operation in the study area during the intervening year. 14 The Phase II study models all 25 queued projects in the reliability assessment and round 15 1 of the deliverability assessment. The Cluster 5 RNU and LDNU requirements are 16 identified and assigned to Cluster 5 projects. The total cost of RNU and LDNU becomes 17 the Phase II combined RNU and LDNU cost cap for these projects. 18 19 Round 2 of the deliverability assessment first models 1000 MW of generation 20 representative of the pre-Cluster 5 queue and the 800 MW of option (A) projects in Cluster 5 in order to fully utilize the 1000 MW of TP Deliverability. Then the 700 MW 21 22 of Option B projects are added to the model and ADNUS are identified for the four Option B projects. The cost of the ADNUs is allocated among the four Option B 23 24 projects. 25 26 Q1/2014, Reassessment and TP Deliverability Allocation after Cluster 5 Phase II Study 27 Shortly after Phase II study results are released, the 2013/2014 transmission plan 28 indicates 1200 MW of TP Deliverability available for new generation, representing a 200 29

1	MW increase over the amount available based on the previous transmission plan. This
2	could occur, for example, if the TPP resource portfolio was expanded in this grid area
3	based on new information on commercial interest in the area.
4	As I explained above, the first part of the reassessment study is needed, among other
5	reasons, in order to update network upgrade requirements based on new information
6	since the model set-up was completed for the Cluster 5 Phase II study, and to enable the
7	ISO to determine how much of the 1200 MW of TP Deliverability needs to be reserved
8	for deliverability commitments to earlier queued projects and is therefore not available
9	for allocation to Cluster 5 projects.
10	Re-assessment Part 1. Update RNU and DNU needs for pre-Cluster 5 projects
11	Assume that subsequent to the model set-up for the Cluster 5 Phase II study, one 200
12	MW pre-Cluster 5 project has withdrawn. This part of the re-assessment evaluates the
13	DNU and RNU requirements for the remaining 1800 MW of pre-Cluster 5 projects in the
14	area and identifies local and area deliverability constraints for Cluster 5 projects.
15 16 17	<u>TP Deliverability Allocation Step 1</u> . In this step the ISO determines how many MW of the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability.
16	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability.
16 17	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have
16 17 18	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability.
16 17 18 19	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200
16 17 18 19 20	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200 MW TP Deliverability. The ISO would also determine how much of the TP
16 17 18 19 20 21	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200 MW TP Deliverability. The ISO would also determine how much of the TP Deliverability is needed to preserve any TPP expansion of RA import capability (i.e., the
16 17 18 19 20 21	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200 MW TP Deliverability. The ISO would also determine how much of the TP Deliverability is needed to preserve any TPP expansion of RA import capability (i.e., the Maximum Import Capability or "MIC") and any deliverability allocated for distributed
16 17 18 19 20 21 22 23	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200 MW TP Deliverability. The ISO would also determine how much of the TP Deliverability is needed to preserve any TPP expansion of RA import capability (i.e., the Maximum Import Capability or "MIC") and any deliverability allocated for distributed generation; we assume both of these are zero to simplify the example. This leaves 700
16 17 18 19 20 21 22 23 24	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200 MW TP Deliverability. The ISO would also determine how much of the TP Deliverability is needed to preserve any TPP expansion of RA import capability (i.e., the Maximum Import Capability or "MIC") and any deliverability allocated for distributed generation; we assume both of these are zero to simplify the example. This leaves 700 MW for allocation to Cluster 5 projects. TP Deliverability Allocation Step 2. In this step the ISO allocates the 700 MW of
16 17 18 19 20 21 22 23 24 25 26	the 1200 should be reserved for the 1800 MW of pre-Cluster 5 projects remaining in queue and other committed allocations of TP Deliverability. In this example, suppose the ISO determines that 500 MW of pre-Cluster 5 projects have PPAs and GIAs in good standing, and these projects will use up 500 MW of the 1200 MW TP Deliverability. The ISO would also determine how much of the TP Deliverability is needed to preserve any TPP expansion of RA import capability (i.e., the Maximum Import Capability or "MIC") and any deliverability allocated for distributed generation; we assume both of these are zero to simplify the example. This leaves 700 MW for allocation to Cluster 5 projects. TP Deliverability Allocation Step 2. In this step the ISO allocates the 700 MW of remaining TP Deliverability to Cluster 5 projects.

available in the study area. The other 400 MW of option (A) projects that did not receive 1 an allocation may park for one allocation cycle and may be eligible for TP Deliverability 2 in the next cycle. The 500 MW of (B) that did not receive TP Deliverability in this cycle 3 must either drop out of queue and forfeit some of their financial security postings, or 4 5 continue to execute a GIA and pay for their required LDNUs and ADNUs without cash reimbursement. For simplicity, the example assumes that all the projects allocated TP 6 Deliverability accept the allocation. No project downsizes or downgrades the requested 7 deliverability status. Once the allocation is completed, 400 MW of Option (A) projects 8 9 are parked and 500 MW of Option (B) projects move forward to GIAs based on selffinancing of their DNU. 10 Re-assessment Part 2. Update RNU, LDNU and ADNU requirements for Cluster 5 11 projects, to reflect the results of the reassessment Part 1 and the TP Deliverability 12 allocation. 13 14 In this step the ISO performs a deliverability assessment by modeling 1200 MW of generation fully utilizing the TP Deliverability, which includes 600 MW Cluster 5 that 15 received TP Deliverability plus the 500 MW pre-Cluster 5 that were found to be viable, 16 plus another 100 MW of "representative" generation. The ISO then adds the 500 MW 17 Option B projects not receiving TP Deliverability and determines ADNUs for these 18 projects. 19 20 The ISO would also perform a deliverability assessment to update LDNU requirements 21 for Cluster 5, by modeling all remaining pre-Cluster 5 and Cluster 5 generation. In this 22 example, no Cluster 5 project downsizes, downgrades deliverability status or withdraws following the TP Deliverability allocation. Therefore, the deliverability constraints 23 identified in the Re-assessment Part 1 would be used to identify LDNUs for Cluster 5 24 projects. 25 Please describe an example of the Cluster 6 reassessment and allocation process. Q. 26 27 A. The reassessment and allocation process for Cluster 5 will be taking place at the same time that Cluster 6 projects make selections to move forward into the Phase II study 28 29 process. The results from the Cluster 5 reassessment and allocation will inform the set-

up of the Cluster 6 Phase II study. My example below is intended only to illustrate how

the TP Deliverability allocation works in clusters after Cluster 5, and therefore the 1 example begins after the Cluster 6 Phase II study results have been distributed to 2 3 customers. 4 Q1/2015, TP Deliverability Allocation following the Cluster 6 Phase II Study Suppose the TPP portfolio in the study area was expanded in the 2014/2015 TPP cycle so 5 that the new amount of TP Deliverability for the study area is 1400 MW. 6 Assume that 1500 MW of pre-Cluster 5 projects remain in the queue (reduced from the 7 8 2000 MW we assumed at the beginning of this example). In addition there are 400 MW of Cluster 5 Option A projects parked from the previous year, plus new Cluster 6 projects 9 consisting of 400 MW Option (A) and 200 MW (B) projects. Thus there is a total of 10 2500 MW of projects that potentially could utilize the 1400 MW of TP Deliverability in 11 this cycle. 12 TP Deliverability Allocation Step 1. Determine how many MW of the 1400 MW 13 should be reserved for prior deliverability commitments, including pre-Cluster 5 projects 14 and Cluster 5 projects receiving TP Deliverability in the previous cycle. 15 Among the pre-Cluster 5 projects, assume that 700 MW meet criteria for reservation of 16 TP Deliverability. Next the ISO will assess whether the 600 MW of Cluster 5 projects 17 18 previously allocated TP deliverability meet the criteria required to retain their previous allocations. Suppose only 500 MW meet the criteria and a 100 MW project loses its 19 20 allocation. 21 Based on the above, 1200 MW (700 MW pre-Cluster 5, plus 500 MW Cluster 5) of the 1400 MW TP deliverability are accounted for, allowing 200 MW for Cluster 6 and any 22 23 Cluster 5 Option (A) projects that were parked from the previous cycle. One additional question the ISO evaluates at this point is whether the total amount of pre-24 25 Cluster 6 deliverability commitments is large enough to require the ISO to consider a need for transmission expansion in the TPP. For example, if the ISO determined that 26 27 1200 MW of the 1500 MW remaining in the pre-Cluster 5 queue appear to be moving to 28 commercial operation based on the reservation criteria, then these plus the 500 MW of 29 Cluster 5 allocations that meet the retention criteria would add up to 1700 MW, which

1		exceeds the 1400 MW of TP Deliverability. Thus in this situation the ISO would include
2		as a planning objective in the next TPP cycle the need to create 300 MW of additional
3		deliverability in this area. In the present Cluster 6 example, the total of full capacity
4		deliverability status projects utilizing the deliverability is still less than the amount
5		provided by the current transmission plan, so there is no indication at this point that the
6		resource portfolio should be expanded for the next transmission planning cycle.
7 8		<u>Cluster 6 TP Deliverability Allocation Step 2</u> . Assume all 200 MW (1400 MW TP Deliverability minus 1200 prior commitments) are allocated to eligible projects.
9		After this allocation, any remaining parked Option (A) customers from Cluster 5 and the
10		100 MW Cluster 5 project that lost its allocation must either drop out or execute energy
11		only GIAs. Any remaining Option (A) projects from Cluster 6 that do not get an
12		allocation in this cycle may remain parked in queue for one more cycle.
13		
14	Q.	Continuing with the example, please describe possible results for Cluster 7
15		customers.
16 17	A.	Similar to the Cluster 6 example above, my Cluster 7 example begins after the Phase II study results have been provided to the customers.
18		Q1/2016, TP Deliverability Allocation after the Cluster 7 Phase II Study
19		Assume that 1000 MW of pre-Cluster 5 projects (down from the original 2000 MW we
20		assumed at the beginning of this example) remain in the queue and there are parked
21		Option (A) projects from Cluster 6, plus new Cluster 7 projects containing 200 MW
22		Option A and 200 MW Option B.
23 24		Suppose the new 2015/2016 transmission plan still has the same 1400 MW of TP Deliverability amount available.
25 26 27		<u>TP Deliverability Allocation Step 1</u> . Determine how much of the 1400 MW should be reserved for prior deliverability commitments, including existing queue projects and previous years' allocations under the GIDAP.

1		Suppose now that 1000 MW of pre-Cluster 5 projects are on track with respect to the
2		reservation criteria, as well as all 500 MW from Cluster 5 and all 200 MW from Cluster
3		6. The total is 1700 MW whose deliverability must be supported by the grid, which now
4		exceeds the 1400 MW capability determined by the current transmission plan. This
5		indicates a need to expand the base case resource portfolio by 300 MW for the next
6		(2016/2017) TPP cycle.
7		TP Deliverability Allocation Step 2. Because the prior deliverability commitments now
8		completely use up the 1400 MW of TP Deliverability, there is no TP Deliverability
9		available for allocation to Cluster 7 projects or the parked Option (A) projects from
10 11		Cluster 6. The Option (A) projects in Cluster 7 may park until next cycle, but the parked Option (A) projects from Cluster 6 can no longer park.
		Option (A) projects from Cluster o can no longer park.
12		
13	Q.	Why is it important that the ISO's GIDAP proposal be approved by the
14		Commission and effective within 61 days of the filing date (July 25, 2012)?
15	A.	Approval of the GIDAP proposal by the Commission to take effect on July 25, 2012 is
16		critical for timely completion of the Cluster 5 Phase I study and for keeping all the
17		subsequent cluster studies on the proposed timeline and coordinated with the TPP.
18		According to the GIDAP proposal, the Cluster 5 Phase II study starts on May 1, 2013,
19		and the Cluster 6 Phase I study starts on July 1, 2013 following the Queue Cluster 6
20		Window from April 1 to April 30, 2013. It is important that the Cluster 5 Phase II study
21		start two months ahead of the Cluster 6 Phase I study to enable proper coordination
22		between the Cluster 5 and Cluster 6 studies. Such coordination includes (1) use of
23		preliminary findings from the Cluster 5 Phase II study to establish necessary network
24		assumptions for the Cluster 6 Phase I Study, and (2) use of the results of the re-
25		assessment following the Cluster 5 Phase II study to provide the basis for study
26		assumptions for the Cluster 6 Phase II study.
27		
28		In order to start the Cluster 5 Phase II study on May 1, 2013, the Cluster 5 Phase I study
29		must be completed by mid-January 2013, which then allows the required amount of time

for the Cluster 5 customers to elect Option (A) or Option (B) and post the first security deposit for moving forward into the Phase II study.

The Queue Cluster 5 window was open from March 1 to March 31 in 2012, while the stakeholder process for the GIDAP tariff amendment was still going on. To give the Cluster 5 interconnection customers more time to evaluate the impact of the GIDAP tariff amendment and the Commission's order on the GIDAP, the ISO issued a market notice allowing Cluster 5 customers to withdraw from the queue without being subject to the study deposit withdrawal forfeiture up to ten calendar days following the ISO's receipt of the Commission's order on the GIDAP tariff amendment. The Cluster 5 Phase I analysis cannot start until the participating customers have made their final decisions, i.e., after the deadline for withdrawal. It takes about one hundred fifty (150) calendar days to complete the Phase I study from this point. Thus it is crucial that the GIDAP proposal be approved and effective in mid-July, 2012 for the Cluster 5 Phase I study to be completed mid-January 2013.

16 Q. Does this conclude your testimony?

A. Yes, it does.

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)	Docket No. ER12	000
Operator Corporation)		

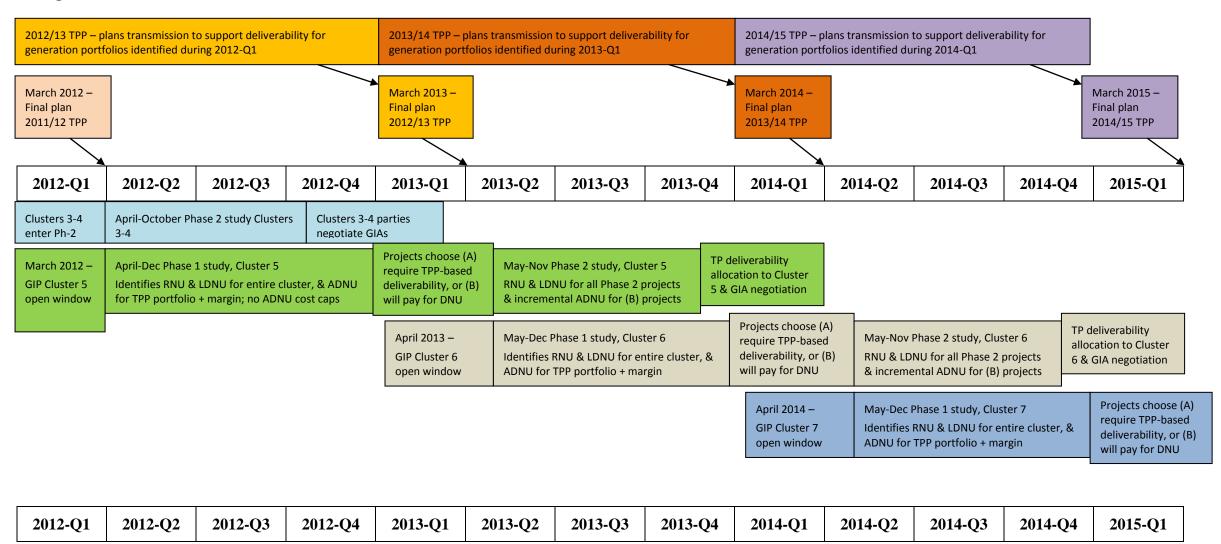
DECLARATION OF WITNESS

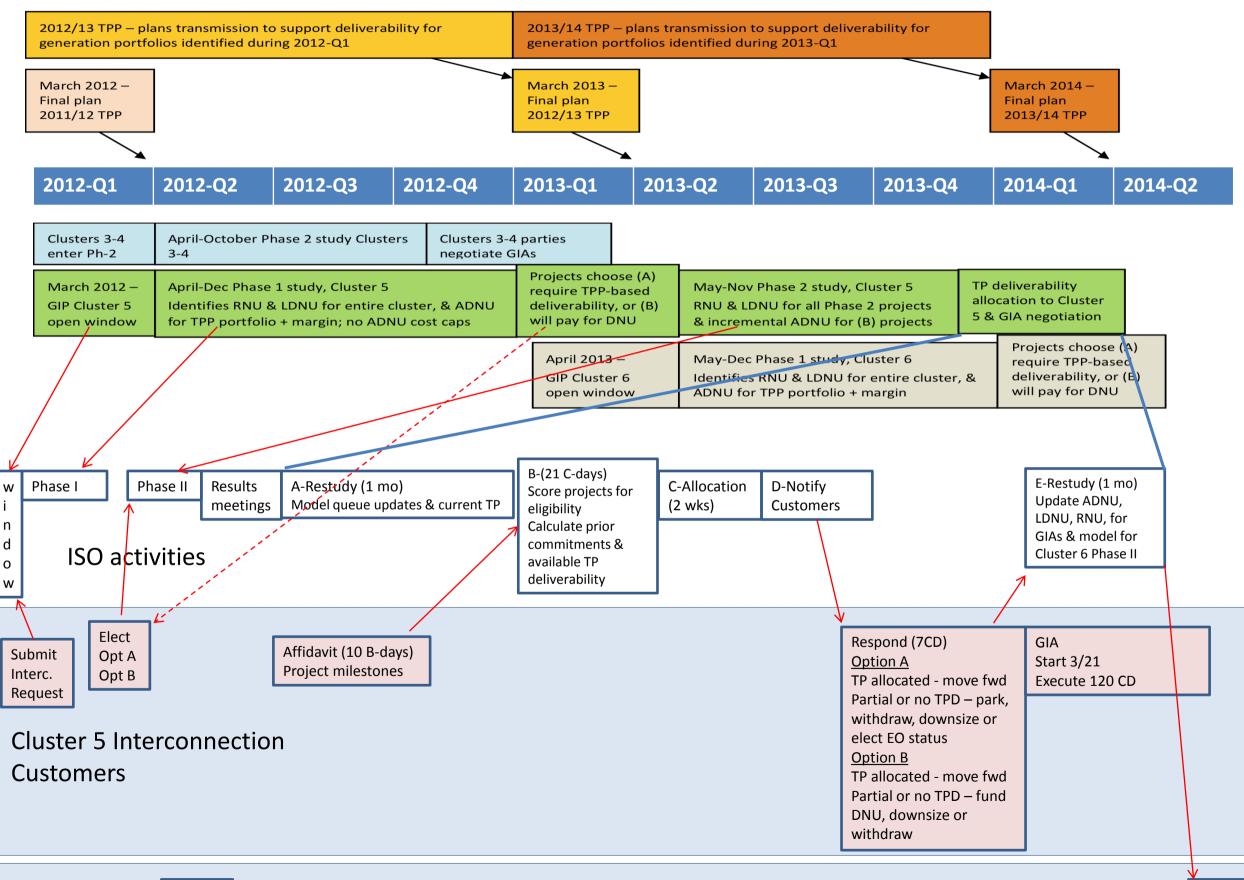
I, Songzhe Zhu, declare under penalty of perjury that the statements contained in the Prepared Direct Testimony of Songzhe Zhu on behalf of the California Independent System Operator Corporation in this proceeding are true and correct to the best of my knowledge, information, and belief.

Executed on this 24th day of May, 2012.

Songzhe Zhu

Integrated TPP-GIP Process and Timeline





Cluster 6

Phase I

Attachment C – Prepared Direct Testimony of Deborah A. Le Vine Generation Interconnection and Deliverability Allocation Procedures Amendment Filing California Independent System Operator Corporation

May 25, 2012

1 2		UNITED STATES OF AMERICA BEFORE THE		
3 4		FEDERAL ENERGY REGULATORY COMMISSION		
5 6 7		California Independent System) Docket No. ER12000 Operator Corporation)		
8 9 10		PREPARED DIRECT TESTIMONY OF DEBORAH A. LE VINE		
11				
12	Q.	Please state your name and business address.		
13	A.	My name is Deborah A. Le Vine. I am employed by the California Independent System	l	
14		Operator Corporation (ISO), 250 Outcropping Way, Folsom, CA 95630.		
15				
16	Q.	Please describe your professional and educational background.		
17	A.	I earned a Bachelor of Science degree in Electrical Engineering from San Diego State		
18		University in San Diego, California in May 1981. In May 1987, I received a Master in		
19		Business Administration from Pepperdine University in Malibu, California. In Decemb	eı	
20		2002, I completed an Executive Program in Driving Government Performance:		
21		Leadership Strategies that Produce Results from the John F. Kennedy School of		
22		Government, Harvard University in Cambridge, Massachusetts. In August 2007, I		
23		completed an Advanced Masters Certificate program in Project Management from		
24		Villanova University in Villanova, Pennsylvania. Additionally, I am a registered		
25		Professional Electrical Engineer in the State of California.		
26				
27	0.	By whom and in what capacity are you employed?		

A. I have been employed by the California Independent System Operator Corporation (ISO) for over 14 years and I'm currently the Director of Interconnection Implementation.

Prior to assuming this position, I was the Director of System Operations, in which I ensured that the day-to-day grid and market operations are maintained thereby ensuring compliance with system reliability for the ISO balancing authority area and transmission provider as designated by the North American Electric Reliability Council (the "NERC") and the Western Electricity Coordinating Council (the "WECC"), and the market responsibilities in the ISO tariff. At the ISO I have also held Director positions in Contracts & Compliance, Special Projects, Market Services, and Project Management for the Market Redesign and Technology Update.

A.

Q. What are your job responsibilities as Director of Interconnection Implementation?

The Director of Interconnection Implementation is a new position at the ISO which is a result of the increased number of generator interconnections required to meet the renewable portfolio standard in California. The responsibilities include proactively monitoring that the parties to the Generator Interconnection Agreements (GIA) are meeting the terms and conditions of the agreement; managing the interconnection queue to enable viable projects to reach commercial operation and non-viable projects to either become viable or surrender their queue position; and aligning internal ISO processes to manage the over 400 projects in the ISO's queue and resolve interconnection customer issues.

1	Q.	were you involved in the development of the generation interconnection /
2		transmission planning process (TPP-GIP) stakeholder initiative?
3	A.	Yes. I was part of the team that worked on the initiative. Consistent with my varied
4		experience, queue management and overall generator interconnection agreement
5		implementation responsibilities, I provided input on process flows and other efficiencies,
6		along with contract requirements, financing and various other issues that will be achieved
7		by better integrating the TPP and the GIP. I will continue to be involved with the
8		necessary Business Practice Manual changes as well as implementation and ongoing
9		tracking activities needed to implement the new Generation Interconnection and
10		Deliverability Allocation Process (GIDAP).
11		
12	Q.	Have you provided expert testimony previously?
13	A.	Yes. I have previously been a witness on behalf of the ISO in Docket Nos. ER98-997-
14		000, et al., regarding the application of the ISO's Participating Generator Agreement to
15		qualifying facilities; Docket No. EL99-93-000, et al., regarding the Turlock Irrigation
16		District and Modesto Irrigation District complaint; Docket No. EL00-105-007, et al.,
17		concerning the revenue requirement of the City of Vernon, CA; Docket No. ER00-2019-
18		000, et al., involving the ISO's transmission Access Charge filing as required by
19		California State Legislation; Docket No. ER00-2360-000, et al., regarding the PG&E
20		Reliability Service Tariff; Docket No. ER01-313-000, et al., regarding the ISO's position
21		with regard to certain billing determinants for the ISO's Grid Management Charge; and
22		Docket No. EL03-15-000, et al., concerning the revenue requirement of the Cities of

Anaheim and Riverside, California. I have also submitted pre-filed testimony in ten other

proceedings in which hearings did not take place. Additionally, I have testified in a number of proceedings before the California Public Utilities Commission, the California Legislature, and in a number of arbitration disputes.

A.

Q. What is the purpose of your testimony?

Overall, I will address the benefits that the GIDAP allocation and reassessment procedures will have for the ISO's queue management efforts. I will also describe the information that will be required from interconnection customers for both allocation and retention eligibility for TP Deliverability, as well as process details. My testimony will address GIDAP impacts on the small and large pro forma generator interconnection agreements and negotiation timelines, as well as on financial security postings.

Q. Please explain how GIDAP will provide benefits to the ISO's interconnection queue study and interconnection negotiation processes.

A. GIDAP has a two-fold benefit to the interconnection queue management. First, GIDAP will allocate TP Deliverability to viable projects, and will require projects that are not allocated TP Deliverability to either withdraw from the queue, convert to energy-only deliverability status, or be willing to pay for needed network upgrades without cash reimbursement. If a project only receives partial TP Deliverability, the interconnection customer will have the opportunity to downsize the project to align with the allocated amount of TP Deliverability. One of the challenges currently facing the queue is that megawatts of grid capacity are being tied up by non-viable projects and the ISO is limited in its ability to require projects already in the queue to surrender their position so that

viable projects can obtain deliverability. The GIDAP will make it much harder for non-viable projects to remain in the queue indefinitely. Second, GIDAP aligns the TPP and GIP processes such that TPP drives the significant transmission additions and upgrades that will be paid for through the ISO's transmission access charge. Major transmission upgrades that were derived from the GIP process without receiving approval under the TPP criteria create unmanageable uncertainty for projects in today's environment.

A.

Q. At what points in the GIDAP process will information about the status of earlier queued projects be taken into consideration?

Dr. Songzhe Zhu, a member of the GIDAP team, provides an overview in her testimony of the GIDAP timeline (Exhibit ISO-1, Attachments 1 and 2). Specifically, from approximately January through April of each cluster cycle, the ISO will conduct a reassessment of the queue and a TP Deliverability allocation process with associated studies. As Dr. Zhu explains, these studies are conducted in a multi-stage reassessment and allocation process after the completion of the Phase II study for Cluster N and before the start of the Phase II study for Cluster N+1. For Cluster 5, this process will begin in January, 2013. The reassessment and TP Deliverability study will take into account information about the status of earlier queued projects from the ISO's queue management process, as well as information that will be provided by interconnection customers regarding the status of permitting, land acquisition and project financing. Details about this time period are shown in Exhibit ISO-1, Attachment 2.

Q. Please describe the data inputs to these studies.

A. Once the Phase II results meetings are concluded, the ISO will conduct the first step of 1 the reassessment by gathering information about the status of earlier queued generation. 2 For Cluster 5, this will consist of updates about whether serial projects and transition 3 cluster through Cluster 4 projects have met contractual milestones or have withdrawn 4 5 from the queue. Starting with Cluster 6, the ISO will also use such information about the 6 progress of generating projects previously allocated TP Deliverability under the GIDAP. By using this information in its analysis, the ISO will be able to update pre-Cluster 5 7 8 reliability network upgrades (RNUs) and local delivery network upgrades (LDNUs), and 9 will model these updates in the TP Deliverability allocation study base case.

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Q. What are the deliverability selection options available to interconnection customers under GIDAP?

Similar to the generation interconnection process (GIP), interconnection customers will have the opportunity to select full capacity or partial capacity deliverability status, or energy-only status, for their proposed generating projects. This selection is made with the submission of the interconnection request. After the Phase I study results are provided, interconnection customers may change their deliverability status by submitting a revised Appendix B to their interconnection request. Under GIDAP, after Phase I study results are provided, the interconnection customers must also select Option (A) or (B) regarding their needs for TP Deliverability in Appendix B. Dr. Zhu explains these options in her testimony.

1	Q.	When will interconnection customers be required to provide information regarding
2		interconnection request viability?

While the first step of the reassessment is being conducted, early January through early
February, interconnection customers will be required to submit information about their
proposed generating facilities. Specifically, for purposes of Step 1 of the TP
Deliverability allocation process, pre-Cluster 5 interconnection customers must submit
affidavits attesting to an executed power purchase agreement (PPA) in good standing for
the facility, and must have a GIA that is in good standing.

Q. Why are all previous clusters and serial interconnection customers required to provide affidavits?

A. The ISO will be using the information in step 1 of the TP Deliverability allocation process to assess how much of the available TP Deliverability should be reserved for these earlier-queued projects rather than allocated to projects in the current cluster. For this purpose the ISO will view a pre-Cluster 5 project that has an executed PPA and a GIA both in good standing as on-track to achieve its commercial operation date and therefore a highly probable user of a share of the available TP Deliverability. If the ISO does not reserve sufficient transmission for viable pre-Cluster 5 projects when making the allocation to the new cluster, and later it turns out that more of these projects are achieving commercial operation than the ISO had estimated, the ISO would be required to develop additional transmission upgrades at ratepayer expense through the TPP to fulfill its obligation to provide deliverability for these projects. This assessment will also be input for the baseline model for the next round of Phase 1 and Phase 2 cluster studies.

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2	Q.	How will the ISO use affidavits from interconnection customers subject to GIDAP?
3	A.	For purposes of both Step 1 and Step 2 of the TP Deliverability allocation, projects in
4		Cluster 5 and later clusters must submit affidavits containing information about: 1)
5		permitting status including government permits, land use, environmental reports,
6		assessments and construction; 2) project financing including whether the project is
7		balance-sheet financed or has another form of commitment for financing, has an executed
8		or approved PPA, or the project is on a short-list for a PPA; and 3) land acquisition
9		including the legal right to construct, site exclusivity and progress towards GIA
10		milestones. For interconnection requests subject to the GIDAP, this affidavit information
11		will be used in two ways. For projects that have received an allocation of TP
12		Deliverability in a previous GIDAP allocation cycle, these affidavits will be used for Step
13		1 of the allocation process to verify whether the projects have met the criteria for
14		retention of their allocations. For projects in the current cluster seeking to obtain TP
15		Deliverability, as well as for projects in the previous cluster that were permitted to park
16		their interconnection requests, these affidavits will be used for Step 2 to establish their
17		eligibility and determine their development progress scores for the allocation. More
18		specifically for projects that were allocated TP Deliverability in a previous GIDAP
19		allocation cycle, those interconnection customers must be able to show:
20		That the generating facility remains in good standing with respect to the criteria

upon which the allocation of TP Deliverability was based. In other words, that

the facility has not regressed from the status upon which its allocation was based.

- If the Cluster 5 interconnection customer was allocated TP Deliverability on the basis of being on an active short list of possible PPA sellers but did not have a PPA at that time, the interconnection customer must show by the start of the next allocation cycle that, at a minimum, there now is an executed PPA in place with a load serving entity.
 - The interconnection customer must have an executed GIA in good standing.
 - The interconnection customer must maintain the original commercial operation date for the generating project unless an extension was granted for reasons beyond the interconnection customer's control and it was not considered a material modification. The COD extension in and of itself may not impact the facility's allocation of TP Deliverability; however the project must continue to meet the other criteria to retain TP Deliverability.

- Q. You reference Cluster 5 and 6; is there any impact to earlier clusters and the serial projects?
- Α. Not directly, no. Because the projects prior to Cluster 5 are proceeding under the existing GIP, their deliverability is governed by the requirements of the GIP and their interconnection agreements. Although the ISO takes into account their development status (i.e., having an executed PPA and GIA in good standing, as noted above) for purposes of Step 1 of the GIDAP allocation of TP Deliverability, this step does not actually affect the pre-Cluster 5 project themselves. As long as those projects remain in compliance with the GIP and their interconnection agreements, the ISO is committed to providing them their appropriate deliverability status. This commitment could require the

ISO to approve additional transmission expansion projects in the TPP in certain circumstances.

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Q. Is there an example of how this will work?

Yes, Dr. Zhu illustrates how this could work in the last part of the extended example she A. provides in her testimony. In discussing the process for allocating TP Deliverability after the Cluster 7 Phase II study, the example poses a scenario in which the ISO has committed to provide full capacity deliverability status to 1,000 MW of pre-Cluster 5 projects, plus 500 MW from Cluster 5 and 200 MW from Cluster 6, for a total of 1,700 MW in an area of the ISO controlled grid that can only support 1,400 MW of TP Deliverability. In this situation, in the next TPP cycle the ISO would include the objective to create at least 300 MW additional TP Deliverability in the study area in order to fulfill the prior commitments to provide full capacity deliverability status to 1,700 MW of generation. In this scenario there could be some indirect, short-term impact to the pre-Cluster 5 projects if there is a time lag of a year or more between the start of commercial operation of all these generation projects and the completion of the TPP-approved transmission to expand the deliverability to the higher capability, creating a situation where there are significantly more than 1,400 MW of generators on-line while the ISO controlled grid can support only 1,400 MW. In such cases the generators in the area may be subject to reductions in their annual Net Qualifying Capacity (NQC) values until the needed additional transmission is in service.

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Q. Is GIDAP the first time the ISO has raised the possibility of NQC reductions?

No. Under section 40.4.6.1 of the tariff the ISO performs an annual deliverability assessment to determine NQC values under current or anticipated ISO controlled grid conditions for all generators with full capacity or partial capacity status. Under this tariff provision generating facilities have always been subject to a potential reduction of NQC in situations where conditions on the grid cause deliverability to be constrained. To minimize the risk of NQC reductions in the context of the GIDAP, the ISO emphasizes the importance of obtaining accurate information on project development status for Step 1 of the TP Deliverability allocation process, so that the ISO does not allocate too much TP Deliverability to projects in the current cluster.

A.

A.

Q. When will the ISO develop the affidavit forms and submission deadlines?

The affidavit forms for each group of interconnection customers, and a general timeline for submitting each affidavit type, will be developed as part of the change management process for the Business Practice Manual (BPM) for Generator Interconnection. An affidavit must be signed by executive management level officers or appropriately authorized employees of the interconnection customer. Once the affidavits are submitted, the ISO will verify the information, determine the projects' GIA standing and, with respect to eligibility criteria for TP Deliverability, establish a score for each eligible project in the queue cluster for which the allocation is being conducted. The proposed tariff also provides that the ISO will issue a market notice each year with a more detailed timeline about the commencement of allocation activities and dates upon which affidavits will be required. This market notice will be discussed in the revised BPM.

1 Q. Please describe the TP Deliverability eligibility scoring and allocation process.

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A. During the BPM change management process to implement GIDAP, the ISO will, with its stakeholders, establish numerical values for each criterion set forth in the proposed tariff Section 8.9.2. Using these values, the ISO will calculate a numerical score for each project. To be eligible for consideration in the allocation process, an interconnection customer must show, at a minimum, that the interconnection customer has applied for the necessary governmental permits or construction authorization, and that the generating project is on a Request for Offer (RFO) short list or that the generating project has the financial capability to proceed to construction without a regulator-approved PPA. If there is sufficient TP Deliverability in a given study area to accommodate all projects that meet these minimal criteria, then the process will not need to utilize any further numerical scoring of projects. But if the volume of projects meeting the minimal criteria exceeds the amount of available TP Deliverability, then the numerical scores will come into play and the ISO will allocate TP Deliverability to projects in order of the scores, highest to lowest, until the available TP Deliverability is fully allocated for the study area. In allocating TP Deliverability based on scores, the ISO will not distinguish between whether a project has selected Option (A) or Option (B), nor whether it belongs to the current cluster or is an eligible parked Option (A) project from the previous cluster. Once the allocations are determined, the ISO will provide notices to all eligible interconnection customers (those in the current queue cluster and those parked from the previous cluster) as to the outcome of the allocation in accordance with the timetable set forth in the market notice. Once receiving the notice, the interconnection customers will have seven days to decide on a course of action and advise the ISO as to whether they

accept the TP Deliverability if allocated, or elect one of the other options open to them if they are not allocated TP Deliverability.

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Q. What options are available to interconnection customers after the TP Deliverability allocation process is completed?

There are several options open to interconnection customers after they receive the results of the TP Deliverability allocation for their projects. One of the most significant ways the GIDAP provides flexibility for project developers is through the "parking" provisions, which the ISO adopted in response to many stakeholder requests. If an interconnection customer with an Option (A) project is not satisfied with the result of the TP Deliverability allocation for its project in the allocation cycle for its queue cluster, parking the project allows the interconnection customer to continue to seek TP Deliverability by participating in the TP Deliverability allocation process for the next queue cluster. For example, if the Option (A) project is not allocated TP Deliverability or is allocated only a portion of the MW amount needed for its requested deliverability status, the interconnection customer may park the interconnection request to try to obtain sufficient TP Deliverability for its requested deliverability status in the next cycle. In deciding to park the project, the interconnection customer may elect to accept the partial allocation its project received in the first allocation cycle, or decline it and try to obtain the full amount in the next cycle. When an interconnection customer accepts a partial allocation of TP Deliverability and parks the remaining capacity of the project, the interconnection customer must enter into a GIA based on partial capacity deliverability status corresponding to the partial TP Deliverability allocation, with the ability to amend

the GIA after the second allocation cycle if it receives additional TP Deliverability. The parking option and this GIA requirement would apply also in a case where an Option (A) project is allocated an amount of TP Deliverability in the first allocation cycle that is greater than the amount the interconnection customer wants to accept at that time. The interconnection customer may decline all or a part of its initial allocation, and the options are the same as if the project was not allocated any TP Deliverability, or was allocated only a portion of the TP Deliverability needed for its requested deliverability status. The Option (A) projects that are parked will then be considered with other eligible projects in the TP Deliverability allocation for the next queue cluster, but will not be entitled to preferential treatment over the projects in the subsequent cluster. Moreover, parking is a one-time opportunity only; after the Option (A) project participates in its second allocation cycle, there is no further opportunity to park to obtain additional TP Deliverability, and any generating capacity that did not get TP Deliverability must either be withdrawn or the deliverability status must change. An interconnection customer has the option to convert its Option (A) project to energy-only deliverability status following the results of either its first or its second TP Deliverability allocation cycle. A choice to convert after the first cycle would mean that the interconnection customer chooses not to park the project.

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- Q. Please explain the rationale for allowing an Option (A) project to decline a portion of its TP Deliverability allocation.
- 22 **A.** This is another example of a provision that was adopted in response to stakeholder requests. Some project developers described the scenario in which a project receives an

allocation of TP Deliverability but has a PPA for only a portion of the allocated amount at that time. The developer may not want to enter into a GIA for the full allocated amount until a PPA for the additional generating capacity is executed. The GIDAP proposal therefore allows an Option (A) project to accept a smaller amount, thereby declining the excess TP Deliverability amount, and park the request to try to obtain additional TP Deliverability in the next cycle. In doing so, the project relinquishes any claim to the excess amount that it declined, and takes its chances in the next allocation cycle. Although stakeholders presented this specific scenario as the basis for needing this provision, the GIDAP does not propose to limit such a "partial decline and park" opportunity only to the scenario described here; any Option (A) project that is eligible for parking may use this provision for any reason.

Q. How are the options for Option (B) projects more limited than for Option (A) projects?

A. Option (B) projects are not permitted to park their projects, nor can they convert to energy-only deliverability status. An Option (B) project that does not receive a TP Deliverability allocation, or that receives only a partial TP Deliverability allocation, must proceed to execute a GIA based on assuming responsibility to pay, without cash reimbursement, for the LDNUs and ADNUs needed (above any allocation of TP Deliverability it may have received) to achieve its requested deliverability status, or withdraw from the queue. The ISO has proposed these limitations because the logic of the Phase II study process and the benefits of the proposed Phase II study approach depend on interconnection customers choosing Option (B) for their projects only if they

are actually able and willing to fund their needed delivery network upgrades without cash reimbursement. If an interconnection customer declares such willingness and ability by electing Option (B), then the Phase II study will estimate the project's needed ADNU and associated costs as accurately as possible. The project will not be excluded from or disadvantaged in the TP Deliverability allocation process, but the Option (B) project will have only the one allocation cycle to obtain TP Deliverability and must then go forward under the terms of Option (B) as necessary, or downsize or reduce to partial deliverability to align its project with any partial allocation it receives (as I discuss further below), or withdraw the project's interconnection request. Alternatively, if the interconnection customer is not really willing and able to pay for the DNU, then prior to the start of the Phase II study process the interconnection customer should submit an energy-only interconnection request or elect Option (A) and not elect Option (B). These limitations on the Option (B) projects help to ensure that the Phase II study process will produce meaningful ADNU results for the interconnection customers. More specifically, I am concerned that if the flexibility open to an Option (B) project were as generous as that for an Option (A) project, it would encourage more projects to declare themselves Option (B) in order to have the ISO identify all their ADNU needs, knowing that they can exercise a broad range of options to remain in queue and avoid actually paying for ADNU and LDNU if they don't like the resulting costs. The efficiency of the GIDAP Phase 2 study process depends on limiting the identification of incremental ADNU to only those projects that are really able and willing to fund their upgrades.

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Q. What other options are available for interconnection customers following the TP
 Deliverability allocation process?

A. An Option (A) or Option (B) project that receives a partial allocation of TP Deliverability (i.e., less than the MW amount needed for its requested deliverability status) can downsize the MW capacity of its project equal to the TP Deliverability amount so that the downsized project has full capacity deliverability status based on the partial allocation, or may retain the project MW capacity and reduce its level of partial capacity deliverability status to align with the partial allocation. Of course, interconnection customers do have the opportunity to withdraw their projects from the queue at this point as well. I describe the financial security posting requirement consequences for these various choices later in my testimony.

Q. What happens after the interconnection customers make their decisions regarding the options you described above?

A. Each interconnection customer will have seven days from the time it receives the results of the TP Deliverability allocation process to notify the ISO regarding how it wants to proceed. After the ISO receives this information, as described by Dr. Zhu, the ISO will use this information in the second step of the reassessment to identify RNUs for all interconnection customers who have not withdrawn their interconnection requests, LDNUs for Option (A) and (B) interconnection customers who are going forward and ADNUs for Option (B) interconnection customers proceeding without a TP Deliverability allocation. This process will take approximately 30 days. If the scope of the network upgrades changes from the final Phase II study, the cost and time to construct the network

upgrades will be updated in about 70 days. Once the reliability and delivery network upgrades and the costs associated with these upgrades have been determined, GIAs will be tendered to the interconnection customers with these updated facilities and costs. The interconnection customers will have a 90-day period to negotiate and execute the GIA, unless mutually agreed otherwise among the interconnection customer, the Participating TO and the ISO, which is the same as the GIP time period for GIA negotiation and execution.

Q. How will the pro forma LGIA and SGIA be affected by GIDAP?

A. The ISO has proposed changes to the pro forma GIAs to reflect the GIDAP proposal. We have added an option for interconnection customers selecting Option (B) to choose an entity other than the Participating TO to build their delivery network upgrades. We have also added a provision to the GIA providing for modifications to the financial security postings for the facilities identified in appendices to the GIA if these items change as part of the reassessment.

Q. Will the financial security postings be affected by GIDAP?

Yes, but only to a limited extent to align the posting requirements with the logic of the GIDAP, in particular with the TP Deliverability allocation process and the ability to select Option (A) or (B). Other than the few changes described below, the financial security posting requirements and calculations will not change. The proposed changes are as follows:

- The first posting for Option (B) projects, in study areas where the queue volume is substantially greater than the TP Deliverability amount, will be calculated based on an estimated incremental ADNU cost rate (dollars per MW of generating capacity) rather than on actual ADNUs identified for the full queue volume in that area. Dr. Zhu explains the estimated incremental ADNU cost rate in discussing the Phase I study methodology in her testimony.
- The ADNU component of the first posting for Option (B) projects assumes that the project does not receive TP Deliverability. If in the allocation process the project does actually receive TP Deliverability, then it will no longer be required to post for ADNU corresponding to the amount of the allocation, and its second posting will be adjusted accordingly.
- The first posting for Option (A) projects will not include a component for ADNUs, because Option (A) projects will not be responsible for ADNU costs.
- If an Option (A) project parks for one cycle, the portion of the LDNU component of the required second posting corresponding to the parked MW will be due after the next cycle's allocation process is complete, to allow the interconnection customer to respond to the results of its second allocation opportunity.
- Other than these changes to align with the logic of the GIDAP particularly with the allocation of TP Deliverability the principles behind and the practical details of financial security posting requirements remain as they are under GIP.

- Q. What changes is the ISO proposing regarding the partial refund of financial security postings when an interconnection customer withdraws a project from the queue?
- The ISO is proposing two new conditions to enable a project to be eligible for partial 4 A. refund of its financial security posting upon withdrawal from the queue, in addition to the 5 conditions specified in the GIP, which will be retained under the GIDAP. An Option (A) 6 project that does not get TP Deliverability will qualify for partial refund, as will an 7 8 Option (B) project that does not receive TP Deliverability and whose Phase II study 9 ADNU cost estimate exceeds its Phase I ADNU cost estimate by the lesser of 20 percent or \$20 million. The latter provision is important because the Phase I study ADNU cost 10 estimate does not provide a cost cap for Option (B) projects, so the Option (B) project 11 12 should be afforded this additional opportunity for partial refund if it decides to withdraw 13 its interconnection request at this point. Because of the parking provision for Option (A) projects, the new eligibility condition proposed for Option (A) projects that park for one 14 15 cycle will extend the eligibility for reimbursement of security posting up to 18 months after its initial Phase II results are published. This condition will have the effect of 16 keeping the parked Option (A) project in the same financial condition it would have 17 available to it if the project elected not to park. Other than offering these new qualifying 18 opportunities for partial reimbursement of financial security postings, the existing GIP 19 rules regarding such reimbursement will be retained under the GIDAP. 20

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- Q. Does this complete your testimony?
- 23 **A.** Yes, it does.

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)	Docket No. ER12-	-000
Operator Corporation)		

DECLARATION OF WITNESS

I, Deborah A. Le Vine, declare under penalty of perjury that the statements contained in the Prepared Direct Testimony of Deborah A. Le Vine on behalf of the California Independent System Operator Corporation in this proceeding are true and correct to the best of my knowledge, information, and belief.

Executed on this 24th day of May, 2012.

Deborah A. Le Vine

Attachment D - Clean Tariff Language

Generation Interconnection and Deliverability Allocation Procedures

Amendment Filing

California Independent System Operator Corporation

Fifth Replacement FERC Electric Tariff

May 25, 2012

* * *

Appendix A Master Definition Supplement

* * *

- ADNU

Area Delivery Network Upgrade.

* * *

- Area Delivery Network Upgrade

A transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

* * *

- Area Deliverability Constraint

A transmission system operating limit, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable Transmission Planning Process portfolio for the entire portfolio area. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

* * *

- Deliverability

(1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability Assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an Intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load-Serving Entities collectively can procure from imports at that Intertie to meet their resource adequacy requirements.

* *

- Deliverability Assessment

An evaluation performed pursuant to the CAISO On-Peak Deliverability Assessment posted on the CAISO website, to determine if a Generating Facility or a group of Generating Facilities could provide

Energy to the CAISO Controlled Grid and be delivered to the aggregate of Load on the CAISO Controlled Grid at peak Load, under a variety of severely stressed conditions.

* * *

- Deliverability Status

An attribute of a Generating Facility that is requested by an Interconnection Customer for the Generating Facility, assigned by the CAISO to the Generating Facility through the GIP, GIDAP or other process specified in the CAISO tariff, and that affects the maximum Net Qualifying Capacity to which the Generating Facility could be entitled.

* * *

- Fast Track Process

The GIP or GIDAP procedure for evaluating an Interconnection Request for a certified Small Generating Facility no larger than 5 MW that includes application of screens, customer options meetings, and optional supplemental review.

* * *

- Force Majeure

Force Majeure" shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

* * *

- Full Capacity Deliverability Status

Full Capacity Deliverability Status entitles a Generating Facility to a Net Qualifying Capacity amount that could be as large as its Qualifying Capacity and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO.

* * *

- Generator Interconnection and Deliverability Allocation Procedures

The Interconnection procedures applicable to an Interconnection Request pertaining to a Generating Facility processed under Appendix DD.

* * *

- GIDAP

Generator Interconnection and Deliverability Allocation Procedures

* * *

- Governmental Authority

Any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, or Participating TO, or any Affiliate thereof.

* * *

-Interconnection Study Cycle

All requirements, actions, and respective obligations of the CAISO, Participating TO, and Interconnection Customer under the GIP set forth in Appendix Y or the GIDAP set forth in Appendix DD applicable to an Interconnection Request submitted in the applicable annual Cluster Application Window and including execution by the parties or submission to FERC by one or more parties of a GIA.

* * *

- Independent Study Process

The GIP or GIDAP procedure for evaluating an Interconnection Request for a Generating Facility independently of the process applicable to a Generating Facility assigned to a Queue Cluster or the Fast Track Process.

* * *

- LDNU

Local Delivery Network Upgrade.

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- Local Deliverability Constraint

A transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign Full Capacity Deliverability Status or Partial Capacity Deliverability Status to one or more additional Generating Facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

* * *

- Local Delivery Network Upgrade

A transmission upgrade or addition identified by the CAISO in the GIDAP interconnection study process to relieve a Local Deliverability Constraint.

- On-Peak Deliverability Assessment

The technical study performed under GIP Section 6.3.2.1 set forth in Appendix Y or GIDAP Section 6.3.2.1 set forth in Appendix DD.

* * *

Option (A) Generating Facility

A Generating Facility for which the Interconnection Customer has selected Option (A) as the Deliverability option under GIDAP Section 7.2 set forth in Appendix DD.

* *

Option (B) Generating Facility

Generating Facilities for which the Interconnection Customer has selected Option (B) as the Deliverability option under GIDAP Section 7.2 set forth in Appendix DD.

* * *

- Partial Capacity Deliverability Status

Partial Capacity Deliverability Status entitles a generating facility to a Net Qualifying Capacity amount that cannot be larger than a specified fraction of its Qualifying Capacity, and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO. An Interconnection Customer requesting Partial Capacity Deliverability Status must specify the fraction of Full Capacity Deliverability Status it is seeking in its Interconnection Request.

* * *

- Phased Generating Facility

A Generating Facility that is structured to be completed and to achieve Commercial Operation in two or more successive phases that are specified in a GIA, such that each phase comprises a portion of the total megawatt generation capacity of the entire Generating Facility.

* * *

- Qualifying Capacity

The maximum Resource Adequacy Capacity that a Resource Adequacy Resource may be eligible to provide. The criteria and methodology for calculating the Qualifying Capacity of resources may be established by the CPUC or other applicable Local Regulatory Authority and provided to the CAISO. A resource's eligibility to provide Resource Adequacy Capacity may be reduced below its Qualifying Capacity through the CAISO's assessment of Net Qualifying Capacity.

- Queue Cluster

A set of Interconnection Requests processed in an Interconnection Study Cycle pursuant to Appendix Y or Appendix DD other than pursuant to the Fast Track Process or the Independent Study Process set forth in Appendix Y or Appendix DD.

* * *

- Reasonable Efforts

With respect to an action required to be attempted or taken by a party under the GIDAP, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a party would use to protect its own interests.

* * *

- Reliability Network Upgrade

The transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Generating Facility(ies) safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for system operating limits, occurring under any system condition, which system operating limits cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Generating Facility's interconnection may have on a path's WECC rating.

* * *

- RNU

Reliability Network Upgrades.

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- Roles and Responsibilities Agreement

The Agreement for the Allocation of Responsibilities with Regard to Generator Interconnection Procedures and Interconnection Study Agreements, a pro forma version of which is attached to GIP Appendix Y and GIDAP Appendix DD.

- TPD

Transmission Plan Deliverability.

* * *

- TP Deliverability

The capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions modeled or identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

Appendix DD

Generator Interconnection and Deliverability Allocation Procedures (GIDAP)

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Appendix 7 Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW ('10 kW Inverter Process")

Section 1 Objectives And Applicability

1.1 Objectives And Applicability

The objective of this Generation Interconnection and Deliverability Allocation Procedures (GIDAP)is to implement the requirements for both Small and Large Generating Facility interconnections to the CAISO Controlled Grid and to provide a process for allocating Transmission Plan Deliverability for Interconnection Requests starting with Queue Cluster 5 and for subsequent Queue Clusters. This GIDAP applies to Interconnection Requests that are either assigned to Queue Cluster 5 and subsequent Queue Clusters, or submitted for the Independent Study Process, or Fast Track Process after [effective date of tariff amendment].

Section 2 Scope And Application

2.1 Application Of Generator Interconnection Procedures

Sections 2 through 15 apply to processing an Interconnection Request pertaining to a Generating Facility that is either: (i) assigned to Queue Clusters 5 and subsequent Queue Clusters, or (ii) included in the Independent Study Process, or (iii) included in the Fast Track Process, after July 25, 2012 pursuant to the terms of this CAISO Tariff for the performance of its Interconnection Studies.

2.2 Comparability

The CAISO shall receive, process, and analyze Interconnection Requests in a timely manner as set forth in this GIDAP. The CAISO will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers as set forth in this GIDAP, whether the Generating Facilities are owned by a Participating TO, its subsidiaries, or Affiliates or others.

2.3 Interconnection Base Case Data

For each Interconnection Study Cycle, the CAISO, in coordination with applicable Participating TO(s), shall publish updated Interconnection Base Case Data, including, as applicable, separate Interconnection Base Case Data for each Group Study to reflect system conditions particular to the Group Study, to a secured section of the CAISO Website: (1) prior to the Phase I Interconnection Study with the Generation reflected in valid Interconnection Requests for the Interconnection Study Cycle, as well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions; (2) after the Phase I Interconnection Study with the Generation reflected in valid Interconnection Requests submitted in the Cluster Application Window for the Interconnection Study Cycle, and the identified preliminary transmission upgrades or additions, as well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions; (3) prior to the Phase II Interconnection Study, including all remaining Generation from the Phase I Interconnection Study for the Interconnection Study Cycle, as well as all Generation reflected in the Interconnection Reguests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions; and (4) after the Phase II Interconnection Study, including all remaining Generation from the applicable Phase I Interconnection Study and the identified transmission upgrades and additions for the Interconnection Study Cycle. as

well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions.

Interconnection Base Case Data shall include information subject to the confidentiality provisions in Section 15.1.

The CAISO shall require current and former Interconnection Customers, Market Participants, and electric utility regulatory agencies within California to sign a CAISO confidentiality agreement and, where the current or former Interconnection Customer or Market Participant is not a member of WECC, or its successor, an appropriate form of agreement with WECC, or its successor, as necessary. All other entities or persons seeking Interconnection Base Case Data must satisfy the foregoing requirements as well as all requirements under 18 C.F.R. Section 388.113 for obtaining the release of Critical Energy Infrastructure Information (as that term is defined by FERC).

2.4 Interconnection Service And Studies

2.4.1 No Applicability to Transmission Service.

Nothing in this GIDAP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

2.4.2 The Product.

Interconnection Service allows the Interconnection Customer to connect the Generating Facility to the CAISO Controlled Grid and be eligible to deliver the Generating Facility's output using the available capacity of the CAISO Controlled Grid. Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or point of delivery or rights to any specific MW of available capacity on the CAISO Controlled Grid.

2.4.3 The Interconnection Studies.

For Interconnection Requests in Queue Cluster 5 and subsequent Queue Clusters, the Interconnection Studies consist of a Phase I Interconnection Study, a reassessment conducted prior to the commencement of a Phase II Interconnection Study, a Phase II Interconnection Study, and an update to the Phase II Interconnection Study report to reflect the results of a reassessment conducted after the TP Deliverability allocation process for the Queue Cluster.

For Interconnection Requests processed under the Independent Study Process, the Interconnection Studies consist of a System Impact Study, a Facilities Study, and, as applicable to Full Capacity or Partial Capacity Deliverability Status, Phase I and Phase II Interconnection Studies and a reassessment.

2.4.3.1 The Phase I Interconnection Studies

The Phase I Interconnection Studies for Queue Cluster Generating Facilities will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The Phase I Interconnection Studies will identify direct Interconnection Facilities and required Reliability Network Upgrades necessary to interconnect the

Generating Facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested Interconnection Service. The Phase I Interconnection Studies will also identify LDNU for Generating Facilities, including those being processed under the Independent Study Process, that have selected Full Capacity or Partial Capacity Deliverability Status. Such LDNU shall be identified in accordance with the On-Peak Deliverability Assessment set forth in Section 6.3.2. The Phase I Interconnection Studies will also provide cost estimates for ADNUs, as described in Section 6.3.2.1.2. The Phase I Interconnection Study report shall include cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall, as applicable, establish the basis for the initial Interconnection Financial Security postings under Section 11.2.

2.4.3.2 The Reassessment Prior to Phase II Interconnection Studies

Before undertaking the Phase II Interconnection Studies, the CAISO will conduct a reassessment, as specified in Section 7.4, to conform the Base Case and Interconnection Base Case Data to account for later conditions since the CAISO performed the Phase II Interconnection Study in the prior Interconnection Study Cycle,

2.4.3.3 The Phase II Interconnection Studies

The Phase II Interconnection Studies will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses, and will identify direct Interconnection Facilities and required RNUs necessary to interconnect the Generating Facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested Interconnection Service. The Phase II Interconnection Studies shall identify LDNUs for Generating Facilities participating in Phase II (including those being processed under the Independent Study Process) that have elected Full Capacity or Partial Capacity Deliverability Status, and ADNUs for Interconnection Customers selecting Option (B) in accordance with Section 7.2.

The Phase II Interconnection Study report shall also set forth the applicable cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall, as applicable, establish the basis for the second and third Interconnection Financial Security postings under Section 11.3.

Where an Interconnection Study report identifies specific transmission facilities for Network Upgrade or Interconnection Facilities, the cost estimates determined in accordance with Section 6.4 will be set forth in present dollar costs as well as time-adjusted dollar costs, adjusted to the estimated year of expenditure for construction of the components being constructed.

2.4.3.4 Update Following TP Deliverability Allocation Process

Following the completion of Phase II Interconnection Studies for the Queue Cluster and provision by the ISO of the results to Interconnection Customers in the Queue Cluster, the ISO will perform the allocation of TP Deliverability to eligible Generating Facilities in accordance with Section 8.9. Based on the results of the allocation process and the responses to those results as reported by affected Interconnection Customers to the ISO, the ISO will provide updates where needed to the Phase II Interconnection Study reports

of affected Interconnection Customers. The update to the Phase II Interconnection Study report provided under this section shall not extend the time for the second Interconnection Financial Security posting under Section 11.3.

Section 3 Interconnection Requests

3.1 General

Pursuant to CAISO Tariff Section 25.1, an Interconnection Customer shall submit to the CAISO an Interconnection Request in the form of Appendix 1 to this GIDAP. The CAISO will forward a copy of the Interconnection Request to the applicable Participating TO within five (5) Business Days of receipt.

The Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. The Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

3.2 Roles And Responsibilities

- (a) Each Interconnection Request will be subject to the direction and oversight of the CAISO. The CAISO will conduct or cause to be performed the required Interconnection Studies and any additional studies the CAISO determines to be reasonably necessary, and will direct the applicable Participating TO to perform portions of studies where the Participating TO has specific and non-transferable expertise or data and can conduct the studies more efficiently and cost effectively than the CAISO. The CAISO will coordinate with Affected System Operators in accordance with Section 3.7.
- (b) The CAISO will complete or cause to be completed all studies as required within the timelines provided in this. Any portion of the studies performed at the direction of the CAISO by the Participating TOs or by a third party shall also be completed within timelines provided in this GIDAP.
- (c) The CAISO has established a pro forma Roles and Responsibilities Agreement, attached hereto as Appendix 4 and incorporated herein by reference, for execution by the CAISO and the applicable Participating TOs.
- (d) Each Interconnection Customer shall pay the actual costs of all Interconnection Studies, and any additional studies the CAISO determines to be reasonably necessary in response to the Interconnection Request. The CAISO shall reimburse the Participating TO for the actual cost of any portion of all Interconnection Studies that such Participating TO performs at the direction of the CAISO.

3.3 Timing for Submitting Interconnection Requests

3.3.1 Timing for Submitting Interconnection Requests for a Queue Cluster

Except for Interconnection Customers requesting processing under the Independent Study Process or Fast Track Process, Interconnection Requests must be submitted during a Cluster Application Window. The Cluster Application Windows for Queue Cluster 5 were open from October 15, 2011 to November 15, 2011 and March 1, 2012 to March 31, 2012. Starting with Queue Cluster 6, a single Cluster Application Window will

open on April 1 and close on April 30 of each year. If any date set forth in this section is not a Business Day, then the applicable date shall be the next Business Day.

3.3.2 Timing for Submitting Interconnection Requests for Independent Study Process and Fast Track Process

Interconnection Customers may submit Interconnection Requests for processing under the Independent Study Process or the Fast Track Process at any time during the year.

3.4 [Not Used]

3.5 Processing of Interconnection Requests

3.5.1 Initiating an Interconnection Request.

To initiate an Interconnection Request, except as set forth for the Fast Track Process in Section 5, and have the Interconnection Request considered for validation under Section 3.5.2, the Interconnection Customer must submit all of the following during the Cluster Application Window, or at any time during the year for proposed Generating Facilities applying for processing under the Independent Study Process:

- (i) An Interconnection Study Deposit equal to \$50,000 plus \$1,000 per MW of electrical output of the Generating Facility, up to a maximum of \$250,000.
- (ii) A completed application in the form of Appendix 1, including requested Deliverability status, requested study process (either Queue Cluster or Independent Study Process), preferred Point of Interconnection and voltage level, and all other required technical data.
- (iii) Demonstration of Site Exclusivity or, for Interconnection Requests in a Queue Cluster, a posting of a Site Exclusivity Deposit of \$100,000 for a Small Generating Facility or \$250,000 for a Large Generating Facility. The demonstration of Site Exclusivity, at a minimum, must be through the Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility.

3.5.1.1 Use of Interconnection Study Deposit.

The CAISO shall deposit all Interconnection Study Deposits in an interest bearing account at a bank or financial institution designated by the CAISO. The Interconnection Study Deposit shall be applied to pay for prudent costs incurred by the CAISO, the Participating TOs, or third parties at the direction of the CAISO or Participating TOs, as applicable, to perform and administer the Interconnection Studies and to meet and otherwise communicate with Interconnection Customers with respect to their Interconnection Requests.

Except for proposed Generating Facilities processed under the Fast Track Process set forth in Section 5, the Interconnection Study Deposits shall be refundable as follows:

(a) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under Section 3.8 on or before thirty (30) calendar days following the Scoping Meeting, the CAISO shall refund to the Interconnection Customer any portion of the

Interconnection Customer's Interconnection Study Deposit, including interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal, that exceed the costs the CAISO, Participating TOs, and third parties have incurred on the Interconnection Customer's behalf.

(b) Should an Interconnection Request made under Section 3.5.1 be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under Section 3.8 more than thirty (30) calendar days after the Scoping Meeting, but on or before thirty (30) calendar days following the Results Meeting (or the latest date permitted under this for a Results Meeting if a customer elects not to have a Results Meeting) for the Phase I Interconnection Study or the System Impact Study for Generating Facilities processed under the Independent Study Process, the CAISO shall refund to the Interconnection Customer the difference between (i) the Interconnection Customer's Interconnection Study Deposit and (ii) the greater of the costs the CAISO and Participating TOs have incurred on the Interconnection Customer's behalf or one-half of the original Interconnection Study Deposit up to a maximum of \$100,000, including interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal.

Interconnection Customers in Queue Cluster 5 who have provided the Study Deposit may receive a refund of the Interconnection Study Deposit, less actual costs expended on the Interconnection Studies to date, by withdrawing from the Queue within ten (10) calendar days after July 25, 2012.

- (c) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under Section 3.8 at any time more than thirty (30) calendar days after the Results Meeting (or the latest date permitted for a Results Meeting if a customer elects not to have a Results Meeting) for the Phase I Interconnection Study, or the System Impact Study for proposed Generating Facilities processed under the Independent Study Process, the Interconnection Study Deposit shall be non-refundable.
- (d) Upon execution of a GIA by an Interconnection Customer, the CAISO and the applicable Participating TOs, or the approval by FERC of an unexecuted GIA, the CAISO shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit, including interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal, that exceeds the costs the CAISO, Participating TOs, and third parties have incurred on the Interconnection Customer's behalf.

Notwithstanding the foregoing, an Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request during an Interconnection Study Cycle shall be obligated to pay to the CAISO all costs in excess of the Interconnection Study Deposit that have been prudently incurred or irrevocably have been committed to be incurred with respect to that Interconnection Request prior to withdrawal. The CAISO will reimburse the applicable Participating TO(s) or third parties, as applicable, for all work performed on behalf of the withdrawn Interconnection Request at the CAISO's direction.

The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

All non-refundable portions of the Interconnection Study Deposit that exceed the costs the CAISO, Participating TOs, or third parties have incurred on the Interconnection Customer's behalf shall be treated in accordance with CAISO Tariff Section 37.9.4.

3.5.1.2 Obligation for Study Costs.

Except as otherwise provided in Section 3.5.1.1, the CAISO shall charge and the Interconnection Customer(s) shall pay the actual costs of the Interconnection Studies. Where an Interconnection Study is performed by means of a Group Study, the cost of the Group Study will be charged pro rata to each Interconnection Request assigned to the Group Study. The cost of Interconnection Studies performed for an individual Interconnection Request, not part of a Group Study, will be charged solely to the Interconnection Customer that submitted the Interconnection Request.

The Participating TO and any third parties performing work on the Interconnection Customer's behalf shall invoice the CAISO for such work, and the CAISO shall issue invoices for Interconnection Studies that shall include a detailed and itemized accounting of the cost of each Interconnection Study. The CAISO shall draw from the Interconnection Study Deposit any undisputed costs within thirty (30) calendar days of issuance of an invoice. Whenever the actual cost of performing the Interconnection Studies exceeds the Interconnection Study Deposit, the Interconnection Customer shall pay the undisputed difference in accordance with the CAISO issued invoice within thirty (30) calendar days. The CAISO shall not be obligated to continue to have any studies conducted unless the Interconnection Customer has paid all undisputed amounts in compliance herewith. In the event an Interconnection Study, or portions thereof, is performed by the CAISO, the Interconnection Customer shall pay only the costs of those activities performed by the Participating TO to adequately review or validate that Interconnection Study or portions thereof.

3.5.1.3 Use of Site Exclusivity Deposit.

The CAISO shall deposit all Site Exclusivity Deposits in an interest bearing account at a bank or financial institution designated by the CAISO. The Site Exclusivity Deposit shall be refundable to the Interconnection Customer at any time upon demonstration of Site Exclusivity or the Interconnection Request is withdrawn by the Interconnection Customer or deemed withdrawn by the CAISO by written notice under Section 3.8. The refund of the Site Exclusivity Deposit shall include interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal. The Site Exclusivity Deposit shall continue to be required after the Interconnection Customer either executes a GIA or requests the filing of an unexecuted GIA under Section 13 if Site Exclusivity has not been demonstrated.

3.5.1.4 Proposed Commercial Operation Date.

The proposed Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility shall not exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates, and the applicable Participating TO(s) and the CAISO agree,

such agreement not to be unreasonably withheld, that engineering, permitting and construction of the new Generating Facility or increase in capacity of the existing Generating Facility will take longer than the seven year period. The CAISO's agreement to an extension of the proposed Commercial Operation Date does not relieve the Interconnection Customer from compliance with the requirements of any of the criteria in Section 8.9.3 for retention of TP Deliverability.

3.5.2 Validation of Interconnection Request.

3.5.2.1 Acknowledgment of Interconnection Request.

The CAISO shall notify the Interconnection Customer within ten (10) Business Days of receipt of the Interconnection Request, which notice shall state whether the Interconnection Request is deemed complete, valid, and ready to be studied.

3.5.2.2 Deficiencies in Interconnection Request.

An Interconnection Request will not be considered to be a valid request until the CAISO determines that the information contained in the Interconnection Request is complete and the Interconnection Customer has provided all items in satisfaction of Section 3.5.1. If an Interconnection Request fails to meet the requirements set forth in Section 3.5.1, the CAISO shall include in its notification to the Interconnection Customer under Section 3.5.2.1 the reasons for such failure and that the Interconnection Request does not constitute a valid request. The Interconnection Customer shall provide the CAISO the additional requested information needed to constitute a valid request. Whenever additional requested information is provided by the Interconnection Customer, the CAISO shall notify the Interconnection Customer within five (5) Business Days of receipt of the additional requested information whether the Interconnection Request is valid. If the Interconnection Request continues to fail to meet the requirements set forth in Section 3.5.1, the CAISO shall include in its notification to the Interconnection Customer the reasons for such failure. If an Interconnection Request has not been deemed valid, the Interconnection Customer must submit all information necessary to meet the requirements of Section 3.5.1 no later than twenty (20) Business Days after the close of the applicable Cluster Application Window or ten (10) Business Days after the CAISO first provided notice that the Interconnection Request was not valid, whichever is later. Interconnection Requests that have not met the requirements of Section 3.5.1 within twenty (20) Business Days after the close of the applicable Cluster Application Window or ten (10) Business Days after the CAISO first provided notice that the Interconnection Request was not valid, whichever is later, will be deemed invalid and will not be included in Interconnection Study Cycle or otherwise studied.

Interconnection Requests deemed invalid under this Section 3.5.2.2 are not subject to Section 3.8. Interconnection Customers with invalid Interconnection Request under this Section 3.5.2.2 may seek relief under Section 14.5 by so notifying the CAISO within two (2) Business Days of the notice of invalidity.

3.6 Internet Posting

The CAISO will maintain on the CAISO Website a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or

transmission line or lines where the interconnection will be made; (iv) the most recent projected Commercial Operation Date; (v) the status of the Interconnection Request, including whether it is active or withdrawn; (vi) the availability of any studies related to the Interconnection Request; (vii) the date of the Interconnection Request; (viii) the type of Generating Facility to be constructed (e.g., combined cycle, combustion turbine, wind turbine, and fuel type); and (ix) requested Deliverability status.

Except in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes a GIA or requests that the applicable Participating TO(s) and the CAISO file an unexecuted GIA with FERC. The CAISO shall post on the CAISO Website an advance notice whenever a Scoping Meeting will be held with an Affiliate of a Participating TO.

The CAISO shall post to the CAISO Website any deviations from the study timelines set forth herein. The CAISO shall further post to the secure CAISO Website portions of the Phase I Interconnection Study that do not contain customer-specific information following the final Results Meeting and portions of the Phase II Interconnection Study that do not contain customer-specific information no later than publication of the final Transmission Plan under CAISO Tariff Section 24.2.5.2 (such posted information to be placed on the secure CAISO Website to protect any Critical Energy Infrastructure Information contained therein). The CAISO shall post to the secure CAISO Website any documents or other materials posted pursuant to this or a Business Practice Manual that contain Critical Energy Infrastructure Information.

3.7 Coordination With Affected Systems

The CAISO will notify the Affected System Operators that are potentially affected by the Interconnection Customer's Interconnection Request or Group Study within which the Interconnection Customer's Interconnection Request will be studied. The CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators, to the extent possible, and, if possible, the CAISO will include those results (if available) in its applicable Interconnection Study within the time frame specified in this GIDAP. The CAISO will include such Affected System Operators in all meetings held with the Interconnection Customer as required by this GIDAP. The Interconnection Customer will cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems, including providing consent to CAISO's identification to Interconnection Customer's name, Generating Facility project name, and release of information which the Interconnection Customer provided as part of its Interconnection Request to the Affected System, participating in any coordinating activities and communications undertaken by the Affected System or CAISO, signing separate study agreements with Affected System owners and paying for necessary studies. An entity which may be an Affected System shall cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

3.8 Withdrawal

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to the CAISO, and the CAISO will notify the applicable Participating TO(s) and Affected System Operators, if any, within three (3) Business Days of receipt of such a notice. In addition, after confirmation by the CAISO of a valid

Interconnection Request under Section 3.5.2, if the Interconnection Customer fails to adhere to all requirements of this GIDAP, except as provided in Section 14.3 (Disputes), the CAISO shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer within five (5) Business Days of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, the Interconnection Customer shall have five (5) Business Days in which to respond with information or action that either cures the deficiency or supports its position that the deemed withdrawal was erroneous and notifies the CAISO of its intent to pursue Dispute Resolution.

Withdrawal shall result in the removal of the Interconnection Request from the Interconnection Study Cycle. If an Interconnection Customer disputes the withdrawal and removal from the Interconnection Study Cycle and has elected to pursue Dispute Resolution, the Interconnection Customer's Interconnection Request will not be considered in any ongoing Interconnection Study during the Dispute Resolution process.

In the event of such withdrawal, the CAISO, subject to the provisions of Sections 15.1 and 3.5.1.1, shall provide, at the Interconnection Customer's request, all information that the CAISO developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

3.9 Transferability Of Interconnection Request

An Interconnection Customer may transfer its Interconnection Request to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

Section 4 Independent Study Process

The CAISO, in coordination with the applicable Participating TO(s), will study Interconnection Requests eligible for treatment under this Independent Study Process independently from other Interconnection Requests.

In the event of a conflict between this Section 4 and another provision of this GIDAP Section 4 shall govern.

4.1 Criteria for Independent Study Process Eligibility

Any Interconnection Request that meets the following criteria will be processed under the Independent Study Process:

- 4.1.1 The Interconnection Customer must provide, along with its Interconnection Request, an objective demonstration that inclusion in a Queue Cluster will not accommodate the desired Commercial Operation Date for the Generating Facility. As part of this demonstration, the Interconnection Customer must show that the desired Commercial Operation Date is physically and commercially achievable, by demonstrating at least two of the following:
 - (i) The Interconnection Customer has obtained, or has demonstrated the ability to obtain, all regulatory approvals and permits needed to complete construction in time to meet the Generating Facility's requested Commercial Operation Date.
 - (ii) The Interconnection Customer is able to provide, or has demonstrated the ability to obtain, a purchase order for generating equipment specific to the proposed Generating Facility, or a statement signed by an officer or authorized agent of the

Interconnection Customer demonstrating that the Interconnection Customer has a commitment for the supply of its major generating equipment in time to meet the Commercial Operation Date through a purchase agreement to which the Interconnection Customer is a party.

- (iii) The Interconnection Customer can provide reasonable evidence of adequate financing or other financial resources necessary to make the Interconnection Financial Security postings required in Sections 11.2 and 11.3.
- **4.1.2** The Interconnection Customer must demonstrate Site Exclusivity.
- 4.1.3 The proposed Generating Facility must be electrically independent of Interconnection Requests included in an existing Queue Cluster, pursuant to Section 4.2, and, in addition, must be electrically independent of any other Generating Facility that is currently being studied under an earlier-queued Independent Study Process Interconnection Request.
- 4.1.4 The CAISO will inform an Interconnection Customer whether it has satisfied the requirements set forth in Sections 4.1.1 and 4.1.2 of the within fifteen (15) Business Days of receiving the Interconnection Request.
- 4.1.5 The CAISO will inform an Interconnection Customer whether it has satisfied the requirement that it be electrically independent of other Interconnection Requests, pursuant to Section 4.2 of the , within fifteen (15) Business Days of receiving the Interconnection Request.
- 4.1.6 Any Interconnection Request that does not satisfy the criteria set forth in Sections 4.1.1, 4.1.2, and 4.1.3 shall be deemed withdrawn, without prejudice to the Interconnection Customer submitting a request at a later date, unless the Interconnection Customer notifies the CAISO in writing within ten (10) Business Days that it wishes the CAISO to hold the Interconnection Request for inclusion in the next Queue Cluster, in which event the CAISO will do so.

4.2 Determination of Electrical Independence

Each Interconnection Request submitted under the Independent Study Process must pass both the flow impact test and the short circuit test set forth in this Section 4.2 in order to qualify for the Independent Study Process. The available power flow and short circuit Base Cases that are being used for the most recent Queue Cluster will be used as the starting Base Cases for these tests.

4.2.1 Flow Impact Test

An Interconnection Request shall have satisfied the requirements of this Section if it satisfies, alternatively, either the set of requirements set forth in Section 4.2.1.1 or the set of requirements set forth in Section 4.2.1.2.

4.2.1.1 Requirement Set Number One : General Independent Study Requests:

The CAISO, in coordination with the applicable Participating TO(s), will perform the flow impact test for an Interconnection Request requesting to be processed under the Independent Study Process as follows:

(i) Identify the transmission facility closest, in terms of electrical distance, to the proposed Point of Interconnection of the Generating Facility being

tested that will be electrically impacted, either as a result of Network Upgrades identified or reasonably expected to be needed by Generating Facilities currently being studied in a Queue Cluster, or as a result of Network Upgrades identified or reasonably expected to be needed by earlier queued Generating Facilities currently being studied through the Independent Study Process. If the current Queue Cluster studies or earlier queued Independent Study Process studies have not yet determined which transmission facilities electrically impacted by the Generating Facility being tested require Network Upgrades, and the CAISO cannot reasonably anticipate whether such transmission facilities will require Network Upgrades from other data, then the CAISO will wait to conduct the independence analysis under this section until sufficient information exists in order to make this determination.

- (ii) The incremental power flow on the transmission facility identified in Section 4.2.1(i) that is caused by the Generating Facility being tested will be divided by the lesser of the Generating Facility's size or the transmission facility capacity. If the result is five percent (5%) or less, the Generating Facility shall pass the flow impact test. If the Generating Facility being tested is tested against the nearest transmission facility and that transmission facility has been impacted by a cluster that required an upgrade as a result of a contingency, then that contingency will be used when applying the flow impact test.
- (iii) If the Generating Facility being tested under the flow impact test is reasonably expected to impact transmission facilities that were identified, per Section 4.2.1 (i), when testing one or more earlier queued Generating Facilities currently being studied through the Independent Study Process, then an additional aggregate power flow test shall be performed on these earlier identified transmission facilities. The aggregate power flow test shall require that the aggregated power flow of the Generating Facility being tested, plus the flow of all earlier queued Generating Facilities currently being studied under the Independent Study Process that were tested against the transmission facilities described in the previous sentence, must be five (5) percent or less of those transmission facilities' capacity.

However, even if the aggregate power flow on any transmission facility tested pursuant to this section (iii) is greater than five (5) percent of the transmission facility's capacity but the incremental power flow as a result of the Generating Facility being tested is one (1) percent or less than of the transmission facility's capacity, the Generating Facility shall pass the test.

If the Generating Facility being tested is tested against the nearest transmission facility and that transmission facility has been impacted by a cluster that required an upgrade as a result of a contingency, then that contingency will be used when applying the flow impact test.

The Generating Facility being tested must pass both this aggregate test as well as the individual flow test described in Section 4.2.1 (ii), in no particular order.

4.2.1.2 Requirement Set Number Two: for Requests for Independent Study of Behind-the-Meter Expansion

This Section 4.2.1.2 applies to an Interconnection Request relating to a behind-the-meter expansion where the existing Generating Facility prime mover is wind technology or solar technology. Such an Interconnection Request submitted under the Independent Study Process will satisfy the requirements of Section 4.2.1 if it satisfies all of the following technical and business criteria for behind-the-meter capacity expansion of a Generating Facility:

- (i) Technical criteria.
 - The total nameplate capacity of the existing Generating Facility plus the incremental increase in capacity does not exceed in the aggregate one hundred twenty-five (125) percent of its previously studied capacity and does not exceed, in the aggregate, one hundred (100) MW.
 - 2) The behind-the-meter capacity expansion shall not take place until after the original Generating Facility has achieved Commercial Operation and all Network Upgrades for the original Generating Facility have been placed in service.
 - 3) The expanded capacity for the Generating Facility has been placed under a separate breaker (the expansion breaker) such that the expansion can be metered separately at all times.
 - 4) Unless specifically requested by the CAISO, the total output of the Generating Facility does not exceed its originally studied capacity at any time. The CAISO will have the authority to trip the expansion breaker if the total output of the Generating Facility exceeds the originally studied capacity.
 - 5) The processing of an Interconnection Request for behind-the-meter expansion under the Independent Study Process shall not result in any increase in the rated Generating Facility electrical output (MW capacity) beyond the rating which pre-existed the Interconnection Request. Further, the processed Interconnection Request shall not operate as a basis under the CAISO Tariff to increase the Net Qualifying Capacity of the Generating Facility beyond the rating which pre-existed the Interconnection Request.
- (ii) Business criteria.
 - The Deliverability Status (Full Capacity, Partial Deliverability or Energy-Only) of the capacity expansion is the same as the Deliverability Status specified for the formally studied Generating Facility.
 - 2) The GIA is amended to reflect the revised operational features of the Generating Facility capacity expansion.

3) The Interconnection Customer may at any time request that the CAISO convert the Interconnection Request for behind-the-meter expansion to an Independent Study Process Interconnection Request to evaluate an incremental increase in electrical output (MW generating capacity) for the existing Generating Facility. The Interconnection Customer must accompany such a conversion request with an appropriate Interconnection Study Deposit and agree to comply with other sections of Section 4 applicable to an Independent Study Process Interconnection Request.

4.2.2 Short Circuit Test

If the short circuit contribution from the Generating Facility (existing or proposed) being tested at the transmission facility identified in Section 4.2.1(i) is less than 100 amperes, the Generating Facility shall pass the short circuit test.

4.3 Scoping Meeting

Within five (5) Business Days after the CAISO notifies the Interconnection Customer that if the Generating Facility associated with its Interconnection Request has satisfied the independence test set forth in Section 4.2, the CAISO shall establish a date agreeable to the Interconnection Customer and the applicable Participating TO(s) for the Scoping Meeting. With input from the Participating TO, the CAISO shall evaluate whether the Interconnection Request is at or near the boundary of an affected Participating TO(s)' service territory or of any other Affected System(s) so as to potentially affect such third parties, and, if such is the case, the CAISO shall invite the affected Participating TO(s) and/or Affected System Operator(s), in accordance with Section 3.7, to the Scoping Meeting by informing such third parties, as soon as practicable, of the time and place of the scheduled Scoping Meeting.

The purpose of the Scoping Meeting shall be to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The applicable Participating TO(s) and the CAISO will bring to the meeting, as reasonably necessary to accomplish its purpose, technical data, including, but not limited to, (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues. The Interconnection Customer will bring to the Scoping Meeting, in addition to the technical data in Attachment A to Appendix 1, any system studies previously performed. The applicable Participating TO(s), the CAISO, and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. The CAISO shall prepare minutes from the meeting, and provide an opportunity for other attendees and the Interconnection Customer to confirm the accuracy thereof. The Scoping Meeting may be omitted by agreement of the Interconnection Customer, Participating TO, and the CAISO.

The CAISO shall, no later than five (5) Business Days after the Scoping Meeting (or agreement to forego such Scoping Meeting), provide the Interconnection Customer with a Independent Study Process Study Agreement (in the form set forth in Appendix 6 to the),

which shall contain an outline of the scope of the system impact and facilities studies and a non-binding good faith estimate of the cost to perform the studies. The Interconnection Customer shall return the executed Independent Study Process Study Agreement or request an extension of time for good cause within thirty (30) Business Days thereafter, or the Interconnection Request shall be deemed withdrawn.

4.4 System Impact Study

- 4.4.1 The system impact study will consist of a short circuit analysis, a stability analysis, a power flow analysis, an assessment of the potential magnitude of financial impacts, if any, on Local Furnishing Bonds, and a proposed resolution, and any other studies that are deemed necessary.
- 4.4.2 The system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested Interconnection Service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the Interconnection.
- 4.4.3 The system impact study shall provide a list of Interconnection Facilities and Reliability Network Upgrades that are required as a result of the Interconnection Request along with a non-binding good faith estimate of cost responsibility and the amount of construction time required. The good faith estimate will be based on the Per Unit Costs as described in Section 6.4.
- 4.4.4 The system impact study will be completed and the results transmitted to the Interconnection Customer within ninety (90) calendar days after the execution of an Independent Study Process Study Agreement. The Interconnection Customer shall execute the agreement(s) and deliver them to the CAISO, and shall make its initial posting of Interconnection Financial Security in accordance with Section 11.2, or its Interconnection Request shall be deemed withdrawn.
- 4.4.5 If requested by the Interconnection Customer, a Results Meeting shall be held among the CAISO, the applicable Participating TO(s), and the Interconnection Customer to discuss the results of the system impact study report, including assigned cost responsibility. The CAISO shall prepare minutes from the meeting. Any such Results Meeting will be held within 20 Business Days of the date the system impact study report is provided to the Interconnection Customer.
- 4.4.6 For Interconnection Requests under the Independent Study Process, the initial posting of Interconnection Financial Security described in Section 11.2 will be based on the cost responsibility for Network Upgrades, and Participating TO's Interconnection Facilities set forth in the system impact study. If the system impact study is waived, then such posting will be based upon the cost responsibility set forth in the facilities study described in Section 4.5.

4.5 Facilities Study

The facilities study shall specify and estimate the cost of the equipment, engineering, procurement, and construction work (including overheads) needed to implement the conclusions of the system impact study, including, if applicable, the cost of remedial measures that address the financial impacts, if any, on Local Furnishing Bonds. The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Participating TO's Interconnection Facilities and upgrades necessary to accomplish the Interconnection, and (3) an estimate of the time required to complete the construction and installation of

such facilities or for effecting remedial measures that address the financial impacts, if any, on Local Furnishing Bonds.

- The facilities study may be waived if the system impact study does not identify any Interconnection Facilities and Reliability Network Upgrades.
- 4.5.3 The facilities study will be completed within ninety (90) calendar days after the Interconnection Customer posts Interconnection Financial Security in accordance with Section11.2 where Network Upgrades are identified. In cases where no Network Upgrades are identified and the required facilities are limited to Interconnection Facilities only, the facilities study will be completed within sixty (60) calendar days after the Interconnection Customer posts Interconnection Financial Security in accordance with Section 11.2.
- 4.5.4 If requested by the Interconnection Customer within ten (10) Business Days of the date of the facilities study report, a Results Meeting shall be held among the CAISO, the applicable Participating TO(s), and the Interconnection Customer to discuss the results of the facilities study report, including assigned cost responsibility. The CAISO shall prepare minutes from the meeting. Any such Results Meeting will be held within twenty (20) Business Days of the date the facilities study report is provided to the Interconnection Customer.
- 4.5.5 For Interconnection Requests under the Independent Study Process, the second posting and third postings of Interconnection Financial Security described in Section 11.3 will be based on the cost responsibility for Network Upgrades and the Participating TO's Interconnection Facilities set forth in the facilities study.

4.6 Deliverability Assessment

Interconnection Customers under the Independent Study Process that request Partial Capacity or Full Capacity Deliverability Status will have a Deliverability Assessment performed as part of the next scheduled Phase I and Phase II Interconnection Studies for Queue Clusters. If the Deliverability Assessment identifies any LDNUs and ADNUs that are triggered by the Interconnection Request, the Interconnection Customer will be responsible to pay its proportionate share of the costs of those Upgrades, pursuant to Sections 6, 7 and 8. If the Generating Facility (or increase in capacity of an existing Generating Facility) achieves its Commercial Operation Date before the Deliverability Assessment is completed and any necessary Delivery Network Upgrades are in service, the proposed Generating Facility (or increase in capacity) will be treated as an Energy-Only Deliverability Status Generating Facility until such Delivery Network Upgrades are in service.

4.7 Extensions of Commercial Operation Date

Extensions of the Commercial Operation Date for Interconnection Requests under the Independent Study Process will not be granted except for circumstances beyond the control of the Interconnection Customer.

Section 5 Fast Track Process

5.1 Applicability and Initiation of Fast Track Process Request

Applicability to a proposed Generating Facility. An Interconnection Customer may request interconnection of a proposed Generating Facility to the CAISO Controlled Grid under the Fast Track Process if the Generating Facility is no larger than 5 MW and is requesting Energy-Only Deliverability Status and if the Interconnection Customer's

proposed Generating Facility meets the codes, standards, and certification requirements of Appendices 9 and 10 of this, or if the applicable Participating TO notifies the CAISO that it has reviewed the design for or tested the proposed Small Generating Facility and has determined that the proposed Generating Facility may interconnect consistent with Reliability Criteria and Good Utility Practice.

Applicability to an existing Generating Facility. If the Interconnection of an existing Generating Facility meets the qualifications for Interconnection under CAISO Tariff Section 25.1(d) or (e) but, at the same time, the Interconnection Customer also seeks to repower or reconfigure the existing Generating Facility in a manner that increases the gross generating capacity by not more than 5 MW, then the Interconnection Customer may request that the Fast Track Process be applied with respect to the repowering or reconfiguration of the existing Generating Facility that results in the incremental increase in MW.

<u>Initiating the Fast Track Interconnection Request.</u> To initiate an Interconnection Request under the Fast Track Process, and have the Interconnection Request considered for validation the Interconnection Customer must provide the CAISO with:

- (i) a completed Interconnection Request as set forth in Appendix 1;
- (ii) a non-refundable processing fee of \$500 and a study deposit of \$1,000; and
- (iii) a demonstration of Site Exclusivity. For the Fast Track Process, such demonstration may include documentation reasonably demonstrating a right to locate the Generating Facility on real estate or real property improvements owned, leased, or otherwise legally held by another.

The CAISO shall review and validate the Fast Track Process Interconnection Request pursuant to Section 5.2.

In the event of a conflict between this Section 5 and another provision of this GIDAP, Section 5 shall govern.

5.2 Initial Review

Within fifteen (15) Business Days after the CAISO notifies the Interconnection Customer that the Interconnection Request is deemed complete, valid, and ready to be studied, the applicable Participating TO shall perform an initial review using the screens set forth in Section 5.3 below, shall notify the Interconnection Customer of the results, and shall include with the notification copies of the analysis and data underlying the Participating TO's determinations under the screens.

5.3 Screens

- 5.3.1 The proposed Generating Facility must pass the following screens to be eligible for Interconnection under this Fast Track Process:
- **5.3.1.1** The proposed Generating Facility's Point of Interconnection must be on the CAISO Controlled Grid.

- 5.3.1.2 For interconnection of a proposed Generating Facility to a radial transmission circuit, the aggregated generation on the circuit, including the proposed Generating Facility, shall not exceed 15 percent of the line section annual peak load as most recently measured at the substation. For purposes of this Section 5.3.1.2, a line section shall be considered as that portion of a Participating TO's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the transmission line.
- 5.3.1.3 For interconnection of a proposed Generating Facility to the load side of spot network protectors, the proposed Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 percent of a spot network's maximum load or 50 kW. For purposes of this Section 5.3.1.3, a spot network shall be considered as a type of distribution system found in modern commercial buildings for the purpose of providing high reliability of service to a single retail customer.
- 5.3.1.4 The proposed Generating Facility, in aggregation with other generation on the transmission circuit, shall not contribute more than 10 percent to the transmission circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.
- 5.3.1.5 The proposed Generating Facility, in aggregate with other generation on the transmission circuit, shall not cause any transmission protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 percent of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds 87.5 percent of the short circuit interrupting capability.
- 5.3.1.6 The Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the Point of Interconnection).
- 5.3.2 If the proposed interconnection passes the screens and no Upgrades are reasonably anticipated, the Interconnection Request shall be approved. Within fifteen (15) Business Days thereafter, the Participating TO will provide the Interconnection Customer with a Small Generator Interconnection Agreement for execution.
- 5.3.3 If the proposed interconnection fails the screens and no Upgrades are reasonably anticipated, but the CAISO and Participating TO determine that the Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Participating TO shall, within fifteen (15) Business Days, provide the Interconnection Customer with a Small Generator Interconnection Agreement for execution.
- 5.3.4 If the proposed interconnection passes the screens and Upgrades are reasonably anticipated, the CAISO and Participating TO shall provide the Interconnection Customer with the opportunity to attend a customer options meeting as described in Section 5.4.

5.4 Customer Options Meeting

If the CAISO and Participating TO determine the Interconnection Request cannot be approved without modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five (5) Business Day period after the determination, the CAISO and Participating TO shall notify the Interconnection Customer and provide copies of all data and analyses underlying its conclusion. Within ten (10) Business Days of the CAISO and Participating TO's determination, the CAISO and Participating TO shall offer to convene a customer options meeting with the CAISO and Participating TO to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the CAISO and Participating TO's determination, or at the customer options meeting, the CAISO and Participating TO shall:

- 5.4.1 Offer to perform facility modifications or modifications to the Participating TO's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Participating TO's electric system; or
- 5.4.2 Offer to perform a supplemental review if the CAISO and Participating TO concludes that the supplemental review might determine that the Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review; or
- 5.4.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the Independent Study Process or Cluster Study Process.

5.5 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within fifteen (15) Business Days of the offer, and submit a deposit for the estimated costs in an amount reasonably determined by the CAISO and Participating TO. The Interconnection Customer shall be responsible for the CAISO and Participating TO's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the CAISO and Participating TO will return such excess, without interest, within twenty (20) Business Days of the invoice.

- 5.5.1 Within ten (10) Business Days following receipt of the deposit for a supplemental review, the CAISO and Participating TO will determine if the Small Generating Facility can be interconnected safely and reliably.
- 5.5.1.1 If so, then, within fifteen (15) Business Days of such a determination, the Participating TO shall forward a Small Generator Interconnection Agreement to the Interconnection Customer for execution.
- If so, and Interconnection Customer facility modifications are required to allow the Generating Facility to be interconnected consistent with safety, reliability, and power quality standards, the Participating TO shall forward a Small Generator Interconnection Agreement to the Interconnection Customer for execution within fifteen (15) Business Days after confirmation that the Interconnection Customer has agreed to pay for the identified modifications to the Participating TO's electric system.

- If so, and Upgrades to the Participating TO's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards, the Participating TO shall forward a Small Generator Interconnection Agreement to the Interconnection Customer for execution within fifteen (15) Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.
- 5.5.2 If not, the Interconnection Request will be deemed withdrawn, without prejudice to the Interconnection Customer resubmitting its Interconnection Request for processing in either a Queue Cluster or under the Independent Study Process.

Section 6 Initial Activities and Phase I of the Interconnection Study Process for Queue Clusters

The provisions of this Section 6 shall apply to all Interconnection Requests except those processed under the Independent Study Process selecting Energy Only Deliverability Status, the Fast Track Process, or the 10 kW inverter process as set forth in Appendix 7.

6.1 Initial Activities Following the Close of the Cluster Application Window

6.1.1 Generator Interconnection Study Process Agreement

Within thirty (30) calendar days of the close of a Cluster Application Window, the CAISO shall provide to each Interconnection Customer with a validated Interconnection Request received during the Cluster Application Window a pro forma Generator Interconnection Study Process Agreement in the form set forth in Appendix 3. The pro forma Generator Interconnection Study Process Agreement shall specify that the Interconnection Customer is responsible for the actual cost of the Interconnection Studies, including reasonable administrative costs, and all requirements of this GIDAP. Within three (3) Business Days following the Scoping Meeting, the Interconnection Customer shall specify for inclusion in the attachment to the Generator Interconnection Study Process Agreement the Point of Interconnection for the Phase I Interconnection Study. Within ten (10) Business Days following the CAISO's receipt of such designation, the CAISO, in coordination with the applicable Participating TOs, shall provide to the Interconnection Customer a signed Generator Interconnection Study Process Agreement. The Interconnection Customer shall execute and deliver to the CAISO the Generator Interconnection Study Process Agreement no later than thirty (30) calendar days after the Scoping Meeting.

6.1.2 Scoping Meeting

Within five (5) Business Days after the CAISO notifies the Interconnection Customer of a Interconnection Request that is complete, valid, and ready for study, the CAISO shall establish a date agreeable to the Interconnection Customer and the applicable Participating TO(s) for the Scoping Meeting. All Scoping Meetings shall occur no later than sixty (60) calendar days after the close of a Cluster Application Window, unless otherwise mutually agreed upon by the Parties. The CAISO shall evaluate whether the Interconnection Request is at or near the boundary of an affected Participating TO(s) service territory or of any other Affected System(s) so as to potentially affect such third parties, and, in such case, the CAISO shall invite the affected Participating TO(s), and/or Affected System Operator(s) in accordance with Section 3.7, to the Scoping Meeting by

informing such third parties of the time and place of the scheduled Scoping Meeting as soon as practicable.

The purpose of the Scoping Meeting shall be to discuss reasonable Commercial Operation Dates and alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to analyze such information and to determine the potential feasible Points of Interconnection and eliminate alternatives given resources and available information. The applicable Participating TO(s) and the CAISO will bring to the meeting, as reasonably necessary to accomplish its purpose, the following: (a) such already available technical data, including, but not limited to, (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues, and (b) general information regarding the number, location, and capacity of other Interconnection Requests in the Interconnection Study Cycle that may potentially form a Group Study with the Interconnection Customer's Interconnection Request.

The Interconnection Customer will bring to the Scoping Meeting, in addition to the technical data in Attachment A to Appendix 1, any system studies previously performed. The applicable Participating TO(s), the CAISO and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, the Interconnection Customer shall designate its Point of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

The CAISO shall prepare minutes from the meeting, and provide the Interconnection Customer and the other attendees an opportunity to confirm the accuracy thereof, that will include, at a minimum, discussions among the applicable Participating TO(s) and the CAISO of the expected results and a good faith estimate of the costs for the Phase I Interconnection Study.

6.1.3 Grouping Interconnection Requests

At the CAISO's option, and in coordination with the applicable Participating TO(s), Interconnection Requests received during the Cluster Application Window for a particular year may be studied individually or in a Group Study for the purpose of conducting one or more of the analyses forming the Interconnection Studies. For each Interconnection Study within an Interconnection Study Cycle, the CAISO may develop one or more Group Studies. A Group Study will include, at the CAISO's sole judgment after coordination with the applicable Participating TO(s), Interconnection Requests that electrically affect one another with respect to the analysis being performed and the annual Transmission Plan, without regard to the nature of the underlying Interconnection Service. The CAISO may also, in its sole judgment after coordination with the applicable Participating TO(s), conduct an Interconnection Study for an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Generating Facility from other Generating Facilities with Interconnection Requests in the Cluster Application Window for a particular year.

An Interconnection Request's inclusion in a Group Study will not relieve the CAISO or Participating TO(s) from meeting the timelines for conducting the Phase I Interconnection Study provided in the . Group Studies shall be conducted in such a manner to ensure the efficient implementation of the annual CAISO Transmission Plan in light of the transmission system's capabilities at the time of each study.

6.2. Scope and Purpose of Phase I Interconnection Study

The Phase I Interconnection Study shall:

- (i) evaluate the impact of all Interconnection Requests received during the Cluster Application Window for a particular year on the CAISO Controlled Grid,
- (ii) preliminarily identify all LDNU and RNU needed to address the impacts on the CAISO Controlled Grid of the Interconnection Requests,
- (iii) preliminarily identify for each Interconnection Request required Interconnection Facilities,
- (iv) assess the Point of Interconnection selected by each Interconnection Customer and potential alternatives to evaluate potential efficiencies in overall transmission upgrades costs,
- (v) establish the maximum cost responsibility for LDNUs and RNUs assigned to each Interconnection Request, until the issuance of the Phase II Interconnection Study report.
- (vi) provide a good faith estimate of the cost of Interconnection Facilities for each Interconnection Request, and
- (vii) provide a cost estimate of ADNUs for each Generating Facility in a Queue Cluster Group Study.

The Phase I Interconnection Study will consist of a short circuit analysis, a stability analysis to the extent the CAISO and applicable Participating TO(s) reasonably expect transient or voltage stability concerns, a power flow analysis, including off-peak analysis, and an On-Peak Deliverability Assessment (and Off-Peak Deliverability Assessment which will be for informational purposes only) for the purpose of identifying LDNUs and estimating the cost of ADNUs, as applicable.

The Phase I Interconnection Study will state for each Group Study or Interconnection Request studied individually (i) the assumptions upon which it is based, (ii) the results of the analyses, and (iii) the requirements or potential impediments to providing the requested Interconnection Service to all Interconnection Requests in a Group Study or to the Interconnection Request studied individually.

The Phase I Interconnection Study will provide, without regard to the requested Commercial Operation Dates of the Interconnection Requests, a list of RNUs and LDNUs to the CAISO Controlled Grid that are preliminarily identified as required as a result of the Interconnection Requests in a Group Study or as a result of any Interconnection Request studied individually and Participating TO's Interconnection Facilities associated with each Interconnection Request, the estimated costs of ADNUs, if applicable and an estimate of any other financial impacts (i.e., on Local Furnishing Bonds).

6.3 Identification of And Cost Allocation for Network Upgrades

6.3.1 Reliability Network Upgrades (RNUs).

The CAISO, in coordination with the applicable Participating TO(s), will perform short circuit and stability analyses for each Interconnection Request either individually or as part of a Group Study to preliminarily identify the RNUs needed to interconnect the Generating Facilities to the CAISO Controlled Grid. The CAISO, in coordination with the applicable Participating TO(s), shall also perform power flow analyses, under a variety of system conditions, for each Interconnection Request either individually or as part of a Group Study to identify Reliability Criteria violations, including applicable thermal overloads, that must be mitigated by RNUs.

The cost of all RNUs identified in the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of short circuit related RNUs identified through a Group Study shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the short circuit duty contribution of each Generating Facility. The estimated costs of all other RNUs identified through a Group Study shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request. The estimated costs of R N Us identified as a result of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request.

6.3.2 Delivery Network Upgrades.

6.3.2.1 The On-Peak Deliverability Assessment.

The CAISO, in coordination with the applicable Participating TO(s), shall perform On-Peak Deliverability Assessments for Interconnection Customers selecting Full Capacity or Partial Capacity Deliverability Status in their Interconnection Requests. The On-Peak Deliverability Assessment shall determine the Interconnection Customer's Generating Facility's ability to deliver its Energy to the CAISO Controlled Grid under peak load conditions, and identify preliminary Delivery Network Upgrades required to provide the Generating Facility with Full Capacity or Partial Capacity Deliverability Status. The Deliverability Assessment will consist of two rounds, the first of which will identify any transmission constraints that limit the Deliverability of the Generating Facilities in the Group Study and will identify LDNUs to relieve the local constraints, and second of which will determine ADNUs to relieve the area constraints.

6.3.2.1.1 Local Delivery Network Upgrades

The On-Peak Deliverability Assessment will be used to establish the maximum cost responsibility for LDNUs for each Interconnection Customer selecting Full Capacity or Partial Capacity Deliverability Status. Deliverability of a new Generating Facility will be assessed on the same basis as all existing resources interconnected to the CAISO Controlled Grid.

The methodology for the On-Peak Deliverability Assessment will be published on the CAISO Website or, when effective, included in a CAISO Business Practice Manual. The

On-Peak Deliverability Assessment does not convey any right to deliver electricity to any specific customer or Delivery Point.

The cost of LDNUs identified in the On-Peak Deliverability Assessment as part of a Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of Delivery Network Upgrades identified in the On-Peak Deliverability Assessment shall be assigned to all Interconnection Requests selecting Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on the Delivery Network Upgrades as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

6.3.2.1.2 Area Delivery Network Upgrades

The On-Peak Deliverability Assessment will be used in the Phase I Interconnection Studies to identify those facilities necessary to provide the incremental Deliverability between the level of TP Deliverability and such additional amount of Deliverability as is necessary for the MW capacity amount of generation targeted in the Phase I Interconnection Studies. Based on such facility cost estimates, the CAISO will calculate a rate for ADNU costs equal to the facility cost estimate divided by the additional amount of Deliverability targeted in the study. The Phase I Interconnection Studies shall provide a cost estimate for each Interconnection Customer which equals the rate multiplied by the requested deliverable MW capacity of the Generating Facility in the Interconnection Request.

6.3.2.1.3 [Intentionally Omitted]

6.3.2.2 Off-Peak Deliverability Assessment.

The CAISO, in coordination with the applicable Participating TO(s), shall perform an Off-Peak Deliverability Assessment to identify transmission upgrades in addition to those Delivery Network Upgrades identified in the On-Peak Deliverability Assessment, if any, for a Group Study or individual Phase I Interconnection Study that includes one or more Location Constrained Resource Interconnection Generators (LCRIG), where the fuel source or source of energy for the LCRIG substantially occurs during off-peak conditions.

The transmission upgrades identified under this Section shall comprise those needed for the full maximum megawatt electrical output of each proposed new LCRIG or the amount of megawatt increase in the generating capacity of each existing LCRIG as listed by the Interconnection Customer in its Interconnection Request, whether studied individually or as a Group Study, to be deliverable to the aggregate of Load on the CAISO Controlled Grid under the Generation dispatch conditions studied. The methodology for the Off-Peak Deliverability Assessment will be published on the CAISO Website or, if applicable, included in a CAISO Business Practice Manual.

The CAISO will perform the Off-Peak Deliverability Assessment for Interconnection Customer informational purposes only, and any such upgrades identified in the Off-Peak Deliverability Assessment as part of the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of such upgrades identified in the assessment will be referred to as "off peak Deliverability transmission upgrades,' the description of such upgrades in any report will be conceptual in nature, and such

transmission upgrades will not be included in a plan of service within the applicable Interconnection Study report.

The cost of all transmission upgrades identified in the Off-Peak Deliverability Assessment performed during the course of the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. However, because these transmission upgrades shall be conceptual in nature only these upgrades shall be treated as follows:

- these transmission upgrades will not be required for the proposed Generating Facility (or proposed increase in capacity) that is the subject to the Interconnection Request to achieve Full Capacity Deliverability Status;
- (ii) the estimated costs for these transmission upgrades shall not be assigned to any Interconnection Customer in an Interconnection Study report, such costs shall not be considered in determining the cost responsibility or maximum cost responsibility of the Interconnection Customer for Network Upgrades under this or in determining the Interconnection Financial Security than an Interconnection Customer must post under Section 11;
- (iii) and the applicable Participating TO(s) shall not be responsible under this for financing or constructing such transmission upgrades.

6.4 Use Of Per Unit Costs To Estimate Network Upgrade and PTO Interconnection Facilities Costs

Each Participating TO, under the direction of the CAISO, shall publish per unit costs for facilities generally required to interconnect Generation to their respective systems.

These per unit costs shall reflect the anticipated cost of procuring and installing such facilities during the current Interconnection Study Cycle, and may vary among Participating TOs and within a Participating TO Service Territory based on geographic and other cost input differences, and should include an annual adjustment for the following ten (10) years to account for the anticipated timing of procurement to accommodate a potential range of Commercial Operation Dates of Interconnection Requests in the Interconnection Study Cycle. The per unit costs will be used to develop the cost of RNUs, LDNUs, ADNUs and Participating TO's Interconnection Facilities. Deviations from a Participating TO's benchmark per unit costs will be permitted if a reasonable explanation for the deviation is provided and there is no undue discrimination.

Prior to adoption and publication of final per unit costs for use in the Interconnection Study Cycle, the CAISO shall publish to the CAISO Website draft per unit costs, including non-confidential information regarding the bases therefore, hold a stakeholder meeting to address the draft per unit costs, and permit stakeholders to provide comments on the draft per unit costs. A schedule for the release and review of per unit costs is set forth in Appendix 5.

6.5 [Intentionally Omitted]

6.6 Phase I Interconnection Study Procedures

The CAISO shall coordinate the Phase I Interconnection Study with applicable Participating TO(s) pursuant to Section 3.2 and any Affected System that is affected by the Interconnection Request pursuant to Section 3.7. Existing studies shall be used to the extent practicable when conducting the Phase I Interconnection Study. The CAISO will coordinate Base Case development with the applicable Participating TOs to ensure the Base Cases are accurately developed. The CAISO shall use Reasonable Efforts to

complete and issue to Interconnection Customers the Phase I Interconnection Study report within two hundred (200) days after the commencement of the Phase I Interconnection Study for Queue Cluster 5 and within one hundred seventy (170) days after the annual commencement of the Phase I Interconnection Study beginning with Queue Cluster 6; however, each individual study or Group Studies may be completed prior to this maximum time where practicable based on factors, including, but not limited to, the number of Interconnection Requests in the Cluster Application Window, study complexity, and reasonable availability of subcontractors as provided under Section 15.2. The CAISO will share applicable study results with the applicable Participating TO(s) for review and comment and will incorporate comments into the study report. The CAISO will issue a final Phase I Interconnection Study report to the Interconnection Customer. At the time of completion of the Phase I Interconnection Study, the CAISO may, at the Interconnection Customer's request, determine whether the provisions of Section 8.6 apply.

At any time the CAISO determines that it will not meet the required time frame for completing the Phase I Interconnection Study due to the large number of Interconnection Requests in the two associated Cluster Application Windows, study complexity, or unavailability of subcontractors on a reasonable basis to perform the study in the required time frame, the CAISO shall notify the Interconnection Customers as to the schedule status of the Phase I Interconnection Study and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, the CAISO shall provide the Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Phase I Interconnection Study, subject to confidentiality arrangements consistent with Section 15.1.

6.7 Phase I Interconnection Study Results Meeting

Within thirty (30) calendar days of issuing the Phase I Interconnection Study report to the Interconnection Customer, the applicable Participating TO(s), the CAISO and the Interconnection Customer shall hold a Results Meeting to discuss the results of the Phase I Interconnection Study, including assigned cost responsibility. The CAISO shall prepare the minutes from the meetings, and provide the Interconnection Customer and the other attendees an opportunity to confirm the accuracy thereof.

Should the Interconnection Customer provide written comments on the final Phase I Interconnection Study report within ten (10) Business Days of receipt of the report, but in no event less than three (3) Business Days before the Results Meeting conducted to discuss the report, whichever is sooner, the ISO will address the written comments in the Phase I Interconnection Study Results Meeting. Should the Interconnection Customer provide comments at any later time (up to the time of the Results Meeting), then such comments shall be considered informal inquiries to which the CAISO will provide informal, informational responses at the Results Meeting, to the extent possible.

The Interconnection Customer may submit, in writing, additional comments on the final Phase I Interconnection Study report up to (3) Business Days following the Results Meeting. Based on any discussion at the Results Meeting and any comments received, the CAISO (in consultation with the applicable Participating TO(s)) will determine, in

accordance with Section 6.8, whether it is necessary to follow the final Phase I Interconnection Study report with a revised study report or an addendum. I The CAISO will issue any such revised report or addendum to the Interconnection Customer no later than fifteen (15) Business Days following the Results Meeting.

6.7.1 Commercial Operation Date.

At the Results Meeting, the Interconnection Customer shall provide a schedule outlining key milestones including environmental survey start date, expected environmental permitting submittal date, expected procurement date of project equipment, back-feed date for project construction, and expected project construction date. This will assist the parties in determining if Commercial Operation Dates are reasonable. If major Interconnection Customer's Interconnection Facilities for the Generating Facility have been identified in the Phase I Interconnection Study, such as telecommunications equipment to support a possible Special Protection System (SPS), distribution feeders to support back feed, new substation, and/or expanded substation work, permitting and material procurement lead times may result in the need to alter the proposed Commercial Operation Date. The Parties may agree to a new Commercial Operation Date. In addition, where an Interconnection Customer intends to establish Commercial Operation separately for different Electric Generating Units or project phases at its Generating Facility, it may only do so in accordance with an implementation plan agreed to in advance by the CAISO and Participating TO, which agreement shall not be unreasonably withheld. Where the parties cannot agree, the Commercial Operation Date determined reasonable by the CAISO, in coordination with the applicable Participating TO(s), will be used for the Phase II Interconnection Study where the changed Commercial Operation Date is needed to accommodate the anticipated completion, assuming Reasonable Efforts by the applicable Participating TO(s), of necessary Reliability Network Upgrades and/or Participating TO's Interconnection Facilities, pending the outcome of any relief sought by the Interconnection Customer under Section 15.5. The Interconnection Customer must notify the CAISO within five (5) Business Days following the Results Meeting that it is initiating dispute procedures under Section 15.5.

6.7.2 Modifications.

- At any time during the course of the Interconnection Studies, the Interconnection Customer, the applicable Participating TO(s), or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the applicable Participating TO(s), the CAISO, and Interconnection Customer, such acceptance not to be unreasonably withheld, the CAISO shall modify the Point of Interconnection and/or configuration in accordance with such changes without altering the Interconnection Request's eligibility for participating in Interconnection Studies.
- At the Phase I Interconnection Study Results Meeting, the Interconnection Customer should be prepared to discuss any desired modifications to the Interconnection Request. After the issuance of the final Phase I Interconnection Study, but no later than ten (10) Business Days following the Phase I Interconnection Study Results Meeting, the Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The CAISO will forward the

Interconnection Customer's modification to the applicable Participating TO(s) within one (1) Business Day of receipt.

Modifications permitted under this Section shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project pursuant to Section 7.1; (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration.

For any modification other than these, the Interconnection Customer may first request that the CAISO evaluate whether such modification is a Material Modification. In response to the Interconnection Customer's request, the CAISO, in coordination with the affected Participating TO(s) and, if applicable, any Affected System Operator, shall evaluate the proposed modifications prior to making them and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except for that specified by the CAISO in an Interconnection Study or otherwise allowed under this Section, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

The Interconnection Customer shall remain eligible for the Phase II Interconnection Study if the modifications are in accordance with this Section.

6.7.3 Determination of Impact of Modifications Decreasing Generating Capacity Output or Deliverability Status Reductions on Calculation of Initial Financial Security Posting

After receiving from the Interconnection Customer any modification elections involving decreases in electrical output (MW) of the Generating Facility and/or changes (*i.e.*, reductions) in Deliverability status as permitted in Section 7.1, the CAISO, in coordination with the applicable Participating TO(s), will determine, based on best engineering judgment, whether such modifications will eliminate the need for any Delivery Network Upgrades identified in the Phase I Interconnection Study report. The CAISO and applicable Participating TO(s) will not conduct any re-studies in making this determination.

If the CAISO and applicable Participating TO(s) should determine that one or more Delivery Network Upgrades identified in the Phase I Interconnection Study are no longer needed, then, solely for purposes of calculating the amount of the Interconnection Customer's initial Financial Security Posting under Section 11.2, such Delivery Network Upgrade(s) will be considered to be removed from the plan of service described in the Interconnection Customer's Phase I Interconnection Study report and the cost estimates for such upgrades shall not be included in the calculation of Interconnection Financial Security in Section 11.2. The CAISO will inform in a timely manner any Interconnection Customers so affected, and provide the Interconnection Customers with written notice of the revised initial Interconnection Financial Security posting amounts. No determination under this Section shall affect either (i) the timing for the initial Interconnection Financial Security posting or (ii) the maximum value for the Interconnection Customer's total cost responsibility for Network Upgrades established by the Phase I Interconnection Study report.

6.8 Revisions and Addenda to Final Interconnection Study Reports

6.8.1 Substantial Error or Omissions; Revised Study Report

Should the CAISO discover, through written comments submitted by an Interconnection Customer or otherwise, that a final Phase I or Phase II Interconnection Study Report (which can mean a final Phase I or Phase II Interconnection Study Report for cluster studies or a final System Impact or Facilities report for the Independent Study Process) contains a substantial error or omission, the CAISO will cause a revised final report to be issued to the Interconnection Customer. A substantial error or omission shall mean an error or omission that results in one or more of the following:

- (i) understatement or overstatement of the Interconnection Customer's cost responsibility for either Network Upgrades or Participating TO Interconnection Facilities by more than five (5) percent or one million dollars (\$1,000,000), whichever is greater; or
- (ii) results in a delay to the schedule by which the Interconnection Customer can achieve Commercial Operation, based on the results of the final Interconnection Study, by more than one year.

A dispute over the plan of service by an Interconnection Customer shall not be considered a substantial error or omission unless the Interconnection Customer demonstrates that the plan of service was based on an invalid or erroneous study assumption that meets the criteria set forth above.

6.8.2 Other Errors or Omissions; Addendum

If an error or omission in an Interconnection Study report (for either the cluster process or Independent Study Process) is not a substantial error or omission, the CAISO shall not issue a revised final Interconnection Study report, although the error or omission may result in an adjustment of the corresponding Interconnection Financial Security. Rather, the CAISO shall document such error or omission and make any appropriate correction by issuing an addendum to the final report.

The CAISO and applicable Participating TO shall also incorporate, as needed, any corrected information pertinent to the terms or conditions of the GIA in the draft GIA provided to an Interconnection Customer pursuant to Section 13.

6.8.3 Only Substantial Errors or Omissions Adjust Posting Dates

Unless the error or omission is a substantial error resulting in the issuance of a revised final Interconnection Study report, the correction of an error or omission shall not operate to delay any deadline for posting Interconnection Financial Security set forth in Section 11. In the case of a substantial error or omission resulting in the issuance of a revised final Phase I or Phase II Interconnection Study report, the deadline for posting Interconnection Financial Security shall be extended as set forth in Section 11. In addition to issuing a revised final report, the CAISO will promptly notify the Interconnection Customer of any revised posting amount and extended due date occasioned by a substantial error or omission.

An Interconnection Customer's dispute of a CAISO determination that an error or omission in a final Study report does not constitute substantial error shall not operate to change the amount of Interconnection Financial Security that the Interconnection Customer must post or to postpone the applicable deadline for the Interconnection Customer to post Interconnection Financial Security. In case of such a dispute, the Interconnection Customer shall post the amount of Interconnection Financial Security in accordance with Section 11, subject to refund in the event that the Interconnection Customer prevails in the dispute.

Section 7 Activities in Preparation for Phase II

Within ten (10) Business Days following the Phase I Interconnection Study Results Meeting, the Interconnection Customer shall submit to the CAISO the completed form of Appendix B (Data Form to Be Provided by the Interconnection Customer Prior to Commencement of the Phase II Interconnection Study) to the Generator Interconnection Study Process Agreement. Within such Appendix B, the Interconnection Customer shall provide the information in Sections 7.1 and, if the for Interconnection Customers seeking Full or Partial Deliverability Capacity, 7.2 below:

7.1 Confirmation or Modification of Deliverability Status

Within such Appendix B, the Interconnection Customer shall either

- (a) confirm the desired Deliverability Status that the Interconnection Customer had previously designated in the completed form of Appendix A to the Generator Interconnection Study Process Agreement (Assumptions Used in Conducting the Phase I Interconnection Study); or
- (b) change the desired Deliverability Status in one of the following ways:
 - from Full Capacity Deliverability Status to Energy-Only Deliverability Status:
 - (ii) from Full Capacity Deliverability Status to Partial Capacity Deliverability Status with a specified fraction of Full Capacity Deliverability Status;
 - (iii) from Partial Capacity Deliverability Status to Energy-Only Deliverability Status; or
 - (iv) reduce Partial Capacity Deliverability Status to a lower fraction of Full Capacity Deliverability Status.

7.2 Full/Partial Capacity Deliverability Options for Interconnection Customers

This section applies to Interconnection Requests for which the Generating Facility Deliverability Status is either Full Capacity or Partial Capacity.

Within such Appendix B, the Interconnection Customer must select one of two options with respect to its Generating Facility:

Option (A), which means that the Generating Facility requires TP Deliverability to be able to continue to Commercial Operation. If the Interconnection Customer selects Option (A), then the Interconnection Customer shall be required to make an initial posting of

Interconnection Financial Security under Section 11.2 for the cost responsibility assigned to it in the Phase I Interconnection Study for RNUs and LDNUs; or,

Option (B), which means that the Interconnection Customer will assume cost responsibility for Delivery Network Upgrades (both ADNUs and LDNUs, to the extent applicable) without cash repayment under Section 14.2.1 to the extent that sufficient TP Deliverability is not allocated to the Generating Facility to provide its requested Deliverability Status. If the Interconnection Customer selects Option (B) then the Interconnection Customer shall be required to make an initial posting of Interconnection Financial Security under Section 11.2 for the cost responsibility assigned to it in the Phase I Interconnection Study for RNUs, LDNUs and ADNUs.

7.3 Postings and Cost Estimates for Network Upgrades

Until such time as the Phase II Interconnection Study report is issued to the Interconnection Customer, the costs assigned to Interconnection Customers for RNUs and LDNUs in the Phase I Interconnection Study report shall establish the maximum value for

- (i) each Interconnection Customer's cost responsibility; and
- the initial posting of Interconnection Financial Security required from each Interconnection Customer under Section 11.2 for such Network Upgrades.

The Phase I Interconnection Study report shall set forth the applicable cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall be the basis for the initial Interconnection Financial Security Posting under Section 11.2

7.4 Reassessment Process

- 7.4.1 The ISO will perform a reassessment of the Phase I Interconnection Study base case prior to the beginning of the GIDAP Phase II Interconnection Studies. The reassessment will evaluate the impacts on those Network Upgrades identified in previous interconnection studies and assumed in the Phase I Interconnection Study of:
 - (a) Interconnection Request withdrawals occurring after the completion of the Phase II Interconnection Studies for the immediately preceding Queue Cluster;
 - (b) the performance of earlier queued Interconnection Customers with executed GIAs with respect to required milestones and other obligations,
 - (c) compliance of earlier queued Interconnection Customers that were allocated TP Deliverability under this GIDAP with the retention criteria;
 - (d) the results of the TP Deliverability allocation from the prior Interconnection Study cycle; and,
 - (e) transmission additions and upgrades approved in the most recent TPP cycle.

The reassessment will be used to develop the base case for the Phase II Interconnection Study

7.4.2 Where, as a consequence of the reassessment, the ISO determines that changes to the previously identified Delivery Network Upgrades in Queue Clusters earlier than the current

Interconnection Study Cycle will cause changes to plans of service set out in executed GIAs, such changes will serve as a basis for amendments to GIAs.

Section 8 Phase II Interconnection Study And TP Deliverability Allocation Processes

The provisions of this Section 8 shall apply to all Interconnection Requests under this GIDAP except those processed under the Independent Study Process selecting Energy Only Deliverability Status, the Fast Track Process, or the 10 kW inverter process.

8.1 Scope Of Phase II Interconnection Study

8.1.1 Purpose of the Phase II Interconnection Study

The CAISO, in coordination with the applicable Participating TO(s), will conduct a Phase II Interconnection Study that will incorporate eligible Interconnection Requests from the previous Phase I Interconnection Study. The Phase II Interconnection Study shall:

- (i) update, as necessary, analyses performed in the Phase I Interconnection Studies to account for the withdrawal of Interconnection Requests from the current Queue Cluster;
- (ii) identify final RNUs needed to physically and reliably interconnect the Generating Facilities and provide final cost estimates;
- (iii) identify final LDNUs needed to interconnect those Generating Facilities selecting Full Capacity or Partial Capacity Deliverability Status and provide final cost estimates,
- (iv) identify final ADNUs for Interconnection Customers selecting Option (B), as provided below and provide revised cost estimates;
- (v) identify, for each Interconnection Request, the Participating TO's Interconnection Facilities for the final Point of Interconnection and provide a +/-20% cost estimate; and
- (vi) coordinate in-service timing requirements based on operational studies in order to facilitate achievement of the Commercial Operation Dates of the Generating Facilities.

The Phase II Interconnection Study report shall set forth the applicable cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall be the basis for Interconnection Financial Security Postings under Section 11.2 and 11.3 Where the cost estimations applicable to the total of RNUs and LDNUs are based upon the Phase I Interconnection Study (because the cost estimation for the subtotal of RNUs and LDNUs were lower and so establish maximum cost responsibility under Section 10.1), the Phase II Interconnection Study report shall recite this fact.

8.1.2 Interim Energy-Only Interconnection until DNUs Completed

If it is determined that the Delivery Network Upgrades cannot be completed by the Interconnection Customer's identified Commercial Operation Date, the Interconnection Study will include interim mitigation measures necessary to allow the Generating Facility to interconnect as an energy-only resource until the Delivery Network Upgrades for the Generating Facility are completed and placed into service, unless interim partial capacity deliverability measures are developed pursuant to Section 8.1.4.

8.1.3 Cost Estimation Detail

With respect to the items detailed in 8.1.1, he Phase II Interconnection Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work, including the financial impacts (i.e., on Local Furnishing Bonds), if any, and schedule for effecting remedial measures that address such financial impacts, needed on the CAISO Controlled Grid to implement the conclusions of the updated Phase II Interconnection Study technical analyses in accordance with Good Utility Practice to physically and electrically connect the Interconnection Customer's Interconnection Facilities to the CAISO Controlled Grid. The Phase II Interconnection Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Participating TO's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

8.1.4 Operational Deliverability Assessment

The CAISO will perform an operational partial and interim Deliverability Assessment (operational Deliverability Assessment) as part of the Phase II Interconnection Study. The operational Deliverability Assessment will be performed for each applicable Queue Cluster Group Study group for each applicable study year through the prior year before all of the required Delivery Network Upgrades are in-service. The CAISO will consider operational Deliverability Assessment results stated for the first year in the pertinent annual Net Qualifying Capacity process that the CAISO performs for the next Resource Adequacy Compliance Year. The study results for any other years studied in operational Deliverability Assessment will be advisory and provided to the Interconnection Customer for its use only and for informational purposes only.

The CAISO will publish the methodology under which the CAISO will perform the operational Deliverability assessment on the ISO Website or within a Business Practice Manual.

8.2 Determining Phase II Network Upgrades

8.2.1 Reliability Network Upgrades and Local Delivery Network Upgrades

RNUs and LDNUs will be identified on the basis of all Interconnection Customers in the current Queue Cluster regardless of whether they have selected Option (A) or (B).

8.2.2 Area Delivery Network Upgrades

The Phase II Interconnection Study will identify ADNUs for Interconnection Customers who have selected Option (B). The Deliverability Assessment Base Case for the Phase II Interconnection Study will include Option (A) Generating Facilities in the current Interconnection Study Cycle and earlier queued Generating Facilities that will utilize TP Deliverability in a total amount that fully utilizes but does not exceed the available TP Deliverability.

If the MW capacity of the Option (A) Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area is less than or equal to the total TP Deliverability in any electrical area, the Deliverability Assessment Base Case will include all Option (A) and earlier queued Generating Facilities in the electrical area.

If the MW capacity of the Option (A) Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area exceeds the TP Deliverability in any electrical area, the Deliverability Assessment Base Case will include a representative subset of Generating Facilities that fully utilizes but does not exceed the TP Deliverability.

After the CAISO has modeled the Option (A) Generating Facilities, as described above, the CAISO will add Option (B) Generating Facilities to the Deliverability Assessment Base Case. ADNUs that are identified as needed for each electrical area shall be assigned to Option (B) Generating Facilities based upon their flow impacts.

8.3 Cost Responsibility for Reliability Network Upgrades

Cost responsibility for final Reliability Network Upgrades identified in the Phase II Interconnection Study of an Interconnection Request shall be assigned to Interconnection Customers regardless of whether the Interconnection Customer has selected Option (A) or (B) or Energy Only Deliverability Status, as follows:

- (i) The cost responsibility for final short circuit related Reliability Network Upgrades shall be assigned to all Interconnection Requests in the Group Study pro rata on the basis of short circuit duty contribution of each Generating Facility.
- (ii) The cost responsibility for all other final Reliability Network Upgrades shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request.

8.4 Cost Responsibility for Local Delivery Network Upgrades

The cost responsibility for Local Delivery Network Upgrades identified in the On-Peak Deliverability Assessment as part of the Phase II Interconnection Study shall be assigned to all Interconnection Requests selecting Full Capacity or Partial Capacity Deliverability Status, regardless of whether the Interconnection Customer has selected Option (A) or (B), based on the flow impact of each such Generating Facility on each Local Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

8.4.1 Cost Responsibility for Area Delivery Network Upgrades

The cost responsibility for Area Delivery Network Upgrades identified in the On-Peak Deliverability Assessment as part of Phase II Interconnection Study shall be assigned to Interconnection Customers who have selected Option (B) Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Area Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

The cost estimate provided in the Phase II Interconnection Study shall establish the basis for the second Interconnection Financial Security Posting for Interconnection Customers selecting Option (B).

8.5 Phase II Interconnection Study Procedures

The CAISO shall coordinate the Phase II Interconnection Study with applicable Participating TO(s) and any Affected System that is affected by the Interconnection

Request pursuant to Section 3.7. Existing studies shall be used to the extent practicable when conducting the Phase II Interconnection Study. The CAISO will coordinate Base Case development with the applicable Participating TOs to ensure the Base Cases are accurately developed. The CAISO shall use Reasonable Efforts to commence the Phase II Interconnection Study by May 1 of each year, and to complete and issue to Interconnection Customers the Phase II Interconnection Study report within two hundred and five (205) calendar days after the annual commencement of the Phase II Interconnection Study. The CAISO will share applicable study results with the applicable Participating TO(s), for review and comment, and will incorporate comments into the study report. The CAISO will issue a final Phase II Interconnection Study report to the Interconnection Customer.

At the request of the Interconnection Customer or at any time the CAISO determines that it will not meet the required time frame for completing the Phase II Interconnection Study, the CAISO shall notify the Interconnection Customer as to the schedule status of the Phase II Interconnection Study and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, the CAISO shall provide the Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Phase II Interconnection Study, subject to confidentiality arrangements consistent with Section 15.1.

8.6 Accelerated Phase II Interconnection Study Process

The Phase II Interconnection Study shall be completed within one hundred fifty (150) calendar days following the later of (1) the posting of the initial Interconnection Financial Security or (2) the completion of the re-assessment in preparation for the Phase II Interconnection Study under Section 7.4.

8.7 Results Meeting With The CAISO And Applicable PTO(s)

Within thirty (30) calendar days of providing the final Phase II Interconnection Study report to the Interconnection Customer, the applicable Participating TO(s), the CAISO and the Interconnection Customer shall meet to discuss the results of the Phase II Interconnection Study, including selection of the final Commercial Operation Date.

Should the Interconnection Customer provide written comments on the final Phase II Interconnection Study report within ten (10) Business Days of receipt of the report, but in no case less than three (3) Business Days before the Results Meeting, whichever is sooner, then the ISO will address the written comments in the Phase II Interconnection Study Results Meeting. Should the Interconnection Customer provide comments at any later time (up to the time of the Results Meeting), then such comments shall be considered informal inquiries to which the CAISO will provide informal, informational responses at the Results Meeting, to the extent possible.

The Interconnection Customer may submit, in writing, additional comments on the final Phase II Interconnection Study report up to three (3) Business Days following the Results Meeting. Based on any discussion at the Results Meeting and any comments received, the CAISO (in consultation with the applicable Participating TO(s)) will determine, in accordance with Section 6.8, whether it is necessary to follow the final Phase II Interconnection Study Report with a revised study report or an addendum to the report. The CAISO will issue any such revised report or addendum no later than fifteen (15) Business Days following the Results Meeting.

8.8 [Intentionally Omitted]

8.9 Allocation Process for TP Deliverability

After the Phase II Interconnection Study reports are issued, the CAISO will perform the allocation of the TP Deliverability to Option (A) and Option (B) Generating Facilities that meet the eligibility criteria set forth in Section 8.9.2. The TP Deliverability available for allocation will determined from the most recent Transmission Plan. Once a Generating Facility is allocated TP Deliverability, the facility will be required to comply with retention criteria specific in Section 8.9.3 in order to retain the allocation.

Allocation of TP Deliverability shall not provide any Interconnection Customer or Generating Facility with any right to a specific MW of capacity on the CAISO Controlled Grid or any other rights (such as title, ownership, rights to lease, transfer or encumber).

The CAISO will issue a market notice to inform interested parties as to the timeline for commencement of allocation activities, for Interconnection Customer submittal of eligibility status and retention information, and anticipated release of allocation results to Interconnection Customers. There are two components to the allocation process.

8.9.1 First Component: Representing TP Deliverability Used by Prior Commitments

The CAISO will identify the following commitments that will utilize MW quantities of TP Deliverability:

- (a) The proposed Generating Facilities corresponding to earlier queued Interconnection Requests meeting the criteria set forth below:
 - (i) proposed Generating Facilities in Queue Cluster 4 or earlier that have executed PPAs with Load-Serving Entities and have GIAs that are in good standing.
 - (ii) proposed Generating Facilities in Queue Cluster 5 and subsequent Queue Clusters that were previously allocated TP Deliverability and have met the criteria to retain the allocation set forth in Section 8.9.4.
- (b) any Maximum Import Capability included as a planning objective in the Transmission Plan;
- (c) any other commitments having a basis in the Transmission Plan.

8.9.2 Second Component: Allocating TP Deliverability To The Current Queue Cluster

If the CAISO determines, under Section 8.9.1.1 above, that no TP Deliverability exists for allocation to the current Queue Cluster, then no allocation of TP Deliverability shall be made to the current Queue Cluster. If TP Deliverability is available for allocation, then the ISO will allocate such capacity to eligible Generating Facilities.

The CAISO shall allocate any TP Deliverability available after taking into account the commitments described in the prior section to eligible Generating Facilities in the current

Interconnection Study Cycle and eligible parked Generating Facilities from the previous Interconnection Study Cycle.

The ISO shall allocate available TP Deliverability to Generating Facilities according to the Interconnection Customers' demonstration of having met the criteria listed below for all or a portion of the full MW generating capacity of the Generating Facility as specified in the Interconnection Request. Where a criterion is met by a portion of the full MW generating capacity of the Generating Facility, the eligibility score associated with that criterion shall apply to the portion that meets the criterion. The demonstration must relate to the same proposed Generating Facility as described in Appendix A to the Interconnection Request. The Generating Facility shall be assigned a numerical score reflecting the Interconnection Customer's demonstration of having met the criteria below under the methodology set forth in the Business Practice Manual. At a minimum, the Generating Facility must meet (1)d and (2)a or (2)d.

- (1) Permitting status. An Interconnection Customer's Generating Facility must meet at least one of the following:
 - The Interconnection Customer has received its final governmental permit or authorization allowing the Generating Facility to commence construction.
 - b. The Interconnection Customer has received a draft environmental report document (or equivalent environmental permitting document) indicating likely approval of the requested permit and/or which indicates that the permitting authority has not found an environmental impact which would likely prevent the permit approval.
 - c. The Interconnection Customer has applied for the necessary governmental permits or authorizations and the authority has deemed such documentation as data adequate for the authority to initiate its review process.
 - d. The Interconnection Customer has applied for the necessary governmental permit or authorization for the construction.
- (2) Project financing status. An Interconnection Customer's Generating Facility must meet at least one of the following criteria:
 - a. The Generating Facility will be balance-sheet financed or has otherwise received a commitment of project financing, and the Interconnection Customer represents to the ISO that either it has a regulator-approved power purchase agreement or that the Interconnection Customer is proceeding to commercial operation without a power purchase agreement.
 - b. The Interconnection Customer has an executed and regulator-approved power purchase agreement.
 - c. The Interconnection Customer has an executed power purchase agreement but such agreement has not yet received regulatory approval.
 - d. The Interconnection Customer does not have an executed power purchase agreement but the Interconnection Customer is included on an active short list or other commercially recognized method of preferential ranking of power providers by a prospective purchaser Load Serving Entity.
- (3) Land acquisition
 - a. The Interconnection Customer demonstrates a present legal right to begin construction of the Generation Facility on one hundred percent (100%) of the real property footprint necessary for the entire Generating facility.
 - b. The Interconnection Customer demonstrates Site Exclusivity.

In allocating TP Deliverability under this section, in a situation where the available amount of TP Deliverability can accommodate only one out of two or more Generating Facilities requesting TP Deliverability and such Generating Facilities score equally under the criteria above, then the CAISO will allocate the TP Deliverability to such equally scoring Generating Facilities according to lowest LDNU cost estimates.

8.9.3 Criteria For Retaining TP Deliverability Allocation

Once a Generating Facility is allocated TP Deliverability under Section 8.9.1, the Interconnection Customer annually, on the date set forth and according to the process described in the Business Practice Manual, must demonstrate that the Generating Facility meets the following criteria to retain its TP Deliverability:

- (1) The Generating Facility shall remain in good standing with respect to the criteria on which the allocation of TP Deliverability was based;
- (2) If the Generating Facility was allocated TP Deliverability based on achievement of only level d Section 8.9.2(2), then the Interconnection Customer must, by the start of the next allocation cycle, demonstrate achievement of level a, b or c of Section 8.9.2(2).
- (3) The Interconnection Customer must have executed a GIA and must remain in good standing with regard to its GIA, such that neither the Participating TO nor ISO has provided the Interconnection Customer with a Notice of Breach of the GIA that has not been cured and the Interconnection Customer has not commenced curative actions;
- (4) The Interconnection Customer must maintain the original Commercial Operation Date set forth in the GIA without request for extension unless such extension is required for reasons beyond the control of the Interconnection Customer and such extension results in no Material Modification or delay in the construction schedule for Network Upgrades common to multiple Generating Facilities; or unless the extension is occasioned by a material delay in the Participating TO's construction of any Network Upgrades or Participating TO's Interconnection Facilities

The Interconnection Customer will provide the required information in the form of an affidavit as described in the Business Practice Manual.

8.9.4 Parking for Option (A) Generating Facilities

For an Option (A) Generating Facility in the current Interconnection Study Cycle which either was allocated less TP Deliverability than requested or does not desire to accept the amount allocated the Interconnection Customer shall select one of the following options:

- (1) Withdraw its Interconnection Request
- (2) Enter into a GIA, in which case the Interconnection Request shall automatically convert to Energy Only Deliverability Status. In such circumstances, upon execution of the GIA, any Interconnection Financial Security shall be adjusted to remove the obligation for Interconnection Financial Security pertaining to LDNUs
- (3) Park the Interconnection Request; in which case the Interconnection Request may remain in the Interconnection queue until the next allocation of TP Deliverability in which it may participate in accordance with the requirements of Section 8.9.1. Parking an Interconnection Request does not confer a preference with respect to any other Interconnection Request with respect to allocation of TP Deliverability.

8.9.5 Partial Allocations of Transmission Based Deliverability to Option (A) and Option (B) Generating Facilities

If a Generating Facility is allocated TP Deliverability in the current Interconnection Study Cycle in an amount less than the amount of Deliverability requested, then the Interconnection Customer must choose one of the following options:

- Accept the allocated amount of TP Deliverability and reduce the MW generating capacity of the proposed Generating Facility such that the allocated amount of TP Deliverability will provide Full Capacity Deliverability Status to the reduced generating capacity;
- (ii) Accept the allocated amount of TP Deliverability and adjust the Deliverability status of the proposed Generating Facility to achieve Partial Capacity Deliverability corresponding to the allocated TP Deliverability;
- (iii) For Option (A) Generating Facilities, accept the allocated amount of TP Deliverability and seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle. In such instance, the Interconnection Customer shall execute a GIA for the entire Generating Facility having Partial Capacity Deliverability corresponding to the allocated amount of TP Deliverability. Following the next cycle of TP Deliverability allocation, the GIA shall be amended as needed to adjust its Deliverability status to reflect any additional allocation of TP Deliverability. At this time the Interconnection Customer may also adopt options (i) or (ii) above based on the final amount of TP Deliverability allocated to the Generating Facility. There will be no further opportunity for this Generating Facility to participate in any subsequent cycle of TP Deliverability allocation; or
- (iv) Decline the allocated amount of TP Deliverability and either withdraw the Interconnection Request or convert to Energy Only Deliverability Status. An Interconnection Customer having an Option (A) Generating Facility that has not previously parked may decline the allocation of TP Deliverability and park until the next cycle of TP Deliverability allocation in the next Interconnection Study Cycle.

8.9.6 Declining TP Deliverability Allocation

An Interconnection Customer having an Option (A) Generating Facility that has not previously parked and is allocated the entire amount of requested TP Deliverability may decline all or a portion of the TP Deliverability allocation and park the Generating Facility Request as described in Section 8.9.4(3).

8.9.7 Consequences of Failure to Retain TP Deliverability

An Interconnection Customer's failure to retain its allocation of TP Deliverability shall not be considered a Breach of the GIA. Upon failure of the Interconnection Customer to retain TP Deliverability, the Deliverability status of the Generating Facility corresponding to the Interconnection Request shall convert to Energy Only Deliverability Status as to that portion of the Generating Facility which has not retained the TP Deliverability.

8.9.8 Updates to Phase II Interconnection Study Results

Upon completion of the allocation of TP Deliverability in accordance with Section 8.9.2, the ISO will provide the allocation results to the Interconnection Customers for eligible Generating Facilities in the current Queue Cluster and eligible parked Generating Facilities in the prior Queue Cluster. Each of these Interconnection Customers will then have seven (7) calendar days to inform the ISO of its decisions in accordance with Sections 8.9.4, 8.9.5, and 8.9.6. Following the ISO's receipt of this information from all affected Interconnection Customers, the ISO will provide updates where needed to the Phase II Interconnection Study reports for all Generating Facilities whose Network Upgrades have been affected.

Section 9 Additional Deliverability Assessment Options

9.1 [Intentionally Omitted]

9.2 Annual Full Capacity Deliverability Option

- **9.2.1** Generating Facilities eligible for Deliverability under this Section are
 - (i) a Generating Facility previously studied as Energy-Only Deliverability Status in the last Interconnection Study Cycle under the CAISO Tariff (including a Small Generating Facility studied under the provisions of Appendix S of the CAISO Tariff) or which has GIA under which the Generating Facility is Energy Only Deliverability Status and such GIA is in good standing at the time of request under this Section;
 - (ii) an Option (A) Generating Facility not allocated TP Deliverability in the last Interconnection Study Cycle that converted to Energy-Only Deliverability Status and has a GIA in good standing and desires to seek additional Deliverability with respect to the Energy Only portion of the Generating Facility
 - (iii) an Option (B) Generating Facility which chose Partial Capacity Deliverability Status and has a GIA in good standing, and desires to seek additional Deliverability with respect to the Energy Only portion of its Generating Facility.

An eligible Generating Facility will have an option to be studied to determine whether it can be designated for Full Capacity Deliverability Status or Partial Capacity Deliverability Status based on available transmission capacity. To be considered in the annual assessment, the Interconnection Customer must make such a request which complies with Section 9.2.3 below within the corresponding annual Cluster Application Window.

- 9.2.2 Any Interconnection Customer selecting this option will be studied immediately following the Phase II Deliverability assessment in the Interconnection Study Cycle in which the Interconnection Customer submitted the request.
- **9.2.3** Interconnection Customers must submit an Interconnection Request as set forth in Appendix 1 along with a non-refundable \$10,000 study fee.
- 9.2.4 After allocating transmission system capability, including capability associated with both existing capability and capability relating to approved transmission upgrades, to Interconnection Customers in the Queue Cluster who originally requested Full Capacity Deliverability Status in the Phase II Interconnection Study, the CAISO will perform additional studies using the Deliverability study procedures set forth in Section 6.3.2 to determine the availability of any remaining transmission system capability for Interconnection Customers requesting Full Capacity Deliverability Status as part of the annual process described in this Section.
 - **9.2.4.1** In determining available transmission capability, priority will be given to Interconnection Customers whose Generating Facilities have the lowest transfer distribution factors, calculated according to the Deliverability study procedures.

- **9.2.4.2** If there is sufficient available transmission capability for the Interconnection Customer to achieve Full Capacity Deliverability Status, then the Interconnection Customer's Generating Facility will be considered to have Full Capacity Deliverability Status.
- 9.2.4.3 If the assessment of available transmission capability conducted under this Section indicates that there is some transmission capacity available for use by the Interconnection Customer, but less than is necessary to achieve Full Capacity Deliverability Status for the Interconnection Customer's Generating Facility, then the Interconnection Customer's Generating Facility will be considered to be partially deliverable, and the amount of transmission capability made available to that Interconnection Customer's Generating Facility will be equal to the determination of available transmission capability for the Generating Facility rounded down to the nearest 50 MW increment.

9.3 PTO Tariff Option for Full Capacity Deliverability Status

To the extent that a Participating TO's tariff provides the option for customers taking interconnection service under the Participating TO's tariff to obtain Full Capacity Deliverability Status, the CAISO will, in coordination with the applicable Participating TO, perform the necessary Deliverability studies to determine the Deliverability of customers electing such option. The CAISO shall execute any necessary agreements for reimbursement of study costs it incurs and to assure cost attribution for any Network Upgrades relating to any Deliverability status conferred to such customers under the Participating TO's tariff.

9.4 Deliverability from Non-Participating TOs

This process applies to Generating Facilities that interconnect to the transmission facilities of a Non-Participating TO located within the CAISO Balancing Authority Area that wish to obtain Full Capacity Deliverability Status or Partial Capacity Deliverability Status under the CAISO Tariff. Such Generating Facilities will be eligible to be studied by the CAISO for Full or Partial Capacity Deliverability Status pursuant to the following provisions:

- (a) The Generating Facility seeking Full or Partial Capacity Deliverability Status under the CAISO Tariff must submit a request to the CAISO to study it for such Status. Such study request will be in the form of the CAISO's pro forma Interconnection Request, must include the Generating Facility's intended Point of Delivery to the CAISO Controlled Grid, and must be submitted during a Cluster Application Window. The Generating Facility will be required to satisfy the same study deposit and Interconnection Financial Security posting requirements as an Interconnection Customer.
- (b) The Non-Participating TO that serves as the interconnection provider to the Generating Facility must treat the CAISO as an Affected System in the interconnection study process for the Generating Facility.
- (c) As part of the Non-Participating TO's interconnection study process, the CAISO, in its sole discretion and on a case-by-case basis, will determine the adequacy of transmission on the Non-Participating TO's system for the Generating Facility to be deemed fully deliverable to the elected Point of Delivery to the CAISO Controlled Grid. Only those proposed Generating Facilities (or proposed increases in Generating Facility capacity) for which the CAISO has determined

there is adequate transmission capacity on the Non-Participating TO system to provide full Deliverability to the applicable Point of Delivery will be eligible to be assessed for Full or Partial Capacity Deliverability Status under the CAISO Tariff.

(d) If the Generating Facility is eligible for study for Full or Partial Capacity Deliverability Status, the CAISO will include the Generating Facility in the Interconnection Study process for the Queue Cluster associated with the Cluster Application Window in which the Generating Facility has submitted its study request. The Point of Delivery with the CAISO will be treated as the Point of Interconnection for purposes of including the Generating Facility in a Group Study with any applicable CAISO Interconnection Customers in the relevant Queue Cluster. Pursuant to the Queue Cluster Interconnection Study process the Generating Facility will be allocated its cost responsibility share of any applicable LDNUs or ADNUs.

The Generating Facility shall be permitted to select an Option (A) or Option (B) Deliverability option under Section 7.2 (and will be treated as an Option (B) Generating Facility if a selection is not provided to the CAISO) and permitted to participate in TP Deliverability allocation under Section 8.

- (e) The CAISO, Participating TO, and Interconnection Customer will execute any necessary agreements for reimbursement of study costs incurred it to assure cost attribution for any Network Upgrades relating to any Deliverability status conferred to each such interconnection customer under the Non-Participating TO's tariff.
- (f) The Non-Participating TO's interconnection customer will receive repayment of funds expended for the construction of the LDNUs, and, as applicable, ADNUs, on the CAISO Controlled Grid in the same manner as CAISO Interconnection Customers, as specified in Section 14.3.2.

Section 10 Cost Responsibility For Interconnection Customers

10.1 Interconnection Customers in a Queue Cluster.

(a) RNUs and LDNUs. Until the Phase II Interconnection Study report is issued to the Interconnection Customer, the costs assigned to Interconnection Customers for RNUs and LDNUs in the Phase I Interconnection Study report shall establish the maximum cost responsibility for such Network Upgrades and the maximum initial Interconnection Financial Security required in Section 11.2.

After the CAISO issues the Phase II Interconnection Study report to the Interconnection Customer, the maximum value for Interconnection Financial Security required of each Interconnection Customer for RNUs and LDNUs shall be established comparing the subtotal cost for RNUs and LDNUs determined in the final Phase I Interconnection Study to the subtotal cost for RNUs and LDNUs determined in the final Phase II Interconnection Study, and utilizing the lower subtotal. The lower subtotal for RNUs and LDNUs shall also establish the Interconnection Customers' maximum cost responsibility for RNUs and LDNUs after issuance of the Phase II Interconnection Study report.

(b) ADNUs. Interconnection Customers selecting Option (A) do not post Interconnection Financial Security for ADNUs. The cost estimate provided in the Phase I Interconnection Studies establishes the basis for the initial Interconnection Financial Security Posting under Section 11.2 for Interconnection Customers selecting Option (B). The Phase II Interconnection Studies shall refresh the cost estimate for ADNUs and shall provide the basis for second and third Interconnection Financial Postings as specified in Section 11.

The ADNU cost estimates provided any Interconnection Study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs However, subsequent to the Interconnection Customer's receipt of its Phase II Interconnection Study report, an Interconnection Customer having selected Option (B) may have its ADNUs adjusted in the reassessment process undertaken under Section 7.4. Accordingly, for such Interconnection Customers, the most recent annual reassessment undertaken under Section 7.4 shall provide the most recent cost estimates for the Interconnection Customer's ADNUs.

10.2 Interconnection Customers in the Independent Study Process.

(a) RNUs and LNUs. the maximum value for the Interconnection Customer's Financial Security for RNUs shall be established by the lesser of the costs for such Network Upgrades assigned to the Interconnection Customer in the final System Impact Study report or final Facilities Study report.

For such Interconnection Customers choosing Full Capacity or Partial Capacity Deliverability status, the maximum value of LDNUs shall be established by the lesser of the costs for such Network Upgrades assigned to the Interconnection Customer in the final Phase I Interconnection Study or the final Phase II Interconnection Study.

(b) ADNUs. Interconnection Customers selecting Option (A) do not post Interconnection Financial Security for ADNUs. The cost estimate provided in the Phase I Interconnection Studies establishes the basis for the initial Interconnection Financial Security posting under Section 11.2 for Interconnection Customers selecting Option (B). The Phase II Interconnection Studies shall refresh the cost estimate for ADNUs and shall provide the basis for second and third Interconnection Financial Postings as specified in Section 11.

The ADNU cost estimates provided any study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs However, subsequent to the Interconnection Customer's receipt of its Phase II Interconnection Study report, an Interconnection Customer having selected Option (B) may have its ADNU adjusted in the reassessment process undertaken under Section 7.4

Section 11 Interconnection Financial Security

11.1 Types Of Interconnection Financial Security

The Interconnection Financial Security posted by an Interconnection Customer may be any combination of the following types of Interconnection Financial Security provided in favor of the applicable Participating TO(s):

- an irrevocable and unconditional letter of credit issued by a bank or financial institution that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's;
- (b) an irrevocable and unconditional surety bond issued by an insurance company that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's;
- (c) an unconditional and irrevocable guaranty issued by a company has a credit rating of A or better by Standard and Poors or A2 or better by Moody's;

- (d) a cash deposit standing to the credit of the applicable Participating TO(s) in an interest-bearing escrow account maintained at a bank or financial institution that is reasonably acceptable to the applicable Participating TO(s);
- (e) a certificate of deposit in the name of the applicable Participating TO(s) issued by a bank or financial institution that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's; or
- (f) a payment bond certificate in the name of the applicable Participating TO(s) issued by a bank or financial institution that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's.

Interconnection Financial Security instruments as listed above shall be in such form as the CAISO and applicable Participating TO(s) may reasonably require from time to time by notice to Interconnection Customers or in such other form as has been evaluated and approved as reasonably acceptable by the CAISO and applicable Participating TO(s).

The CAISO shall publish and maintain standardized forms related to the types of Interconnection Financial Security listed above which shall be accessible on the CAISO Website. The CAISO shall require the use of standardized forms of Interconnection Financial Security to the greatest extent possible. If at any time the guarantor of the Interconnection Financial Security fails to maintain the credit rating required by this Section, the Interconnection Customer shall provide to the applicable Participating TO(s) replacement Interconnection Financial Security meeting the requirements of this Section within five (5) Business Days of the change in credit rating.

Interest on a cash deposit standing to the credit of the applicable Participating TO(s) in an interest-bearing escrow account under subpart (d) of this Section will accrue to the Interconnection Customer's benefit and will be added to the Interconnection Customer's account on a monthly basis.

11.2 Interconnection Financial Security-Initial Posting

- 11.2.1 The Interconnection Customer shall post, with notice to the CAISO, two separate Interconnection Financial Security instruments: (i) a posting relating to the applicable Network Upgrades; (ii) a posting relating to the Participating TO's Interconnection Facilities.
- Timing of Postings. The postings set forth in this Section shall be made on or before ninety (90) calendar days after issuance of the final Phase I Interconnection Study report for Interconnection Customers in a Queue Cluster, or on or before sixty (60) calendar days after the CAISO provides the results of the System Impact Study for Interconnection Customers in the Independent Study Process.

Revised Cluster Study Reports. If the CAISO revises a final Phase I Interconnection Study report pursuant to Section 6.8, the initial postings will be due from the Interconnection Customer by the later of ninety (90) calendar days after issuance of the original final Phase I Interconnection Study Report or forty (40) calendar days after issuance of the revised final Phase I Interconnection Study Report.

Revised Independent Study Track Reports. If the CAISO revises a final System Impact Study report pursuant to Section 6.8, the initial postings will be due from the Interconnection Customer by the later of ninety (90) calendar days after issuance of the original final System Impact report or thirty (30) calendar days after issuance of the revised System Impact Study report.

11.2.3 Posting Amount for Network Upgrades.

11.2.3.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument as follows:

1) <u>Interconnection Customers selecting Energy Only Deliverability Status must post for RNUs.</u>

The posting amount for such RNUs shall equal the lesser of fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

2) <u>Interconnection Customers selecting Option (A) Full Capacity or Partial Capacity</u> Deliverability Status must post for RNUs and LDNUs.

The posting amount for such RNUs and LDNUs shall equal the lesser of fifteen percent (15%) of the total RNU and LDNU cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

3) <u>Interconnection Customers selecting Option (B) Full Capacity or Partial Capacity Deliverability Status must post for RNUs, LDNUs and ADNUs.</u>

The posting amount for such RNUs, LDNUs and ADNUs shall equal the lesser of fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

11.2.3.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument as follows:

1) Interconnection Customers selecting Energy Only Deliverability Status must post for RNUs.

The posting amount for such RNUs shall equal the lesser of (i) fifteen percent (15%) of the total RNU cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

In addition, if an Interconnection Customer switches its status from Full Capacity Deliverability Status to Energy-Only Deliverability Status within five (5) Business Days following the Phase I Interconnection Study Results Meeting, the required Interconnection Financial Security for Network Upgrades shall, for purposes of this section, be additionally capped at an amount no greater than the total cost responsibility assigned to the Interconnection Customer in the Phase I Interconnection Study for Reliability Network Upgrades.

2) <u>Interconnection Customers selecting Option (A) Full Capacity or Partial Capacity</u> Deliverability Status must post for RNUs and LDNUs.

The posting amount for such RNUs and LDNUs shall equal the lesser of (i) fifteen percent (15%) of the total RNU and LDNU cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

3) <u>Interconnection Customers selecting Option (B) Full Capacity or Partial Capacity Deliverability Status must post for RNUs, LDNUs and ADNUs.</u>

The posting amount for such RNUs, LDNUs and ADNUs shall be equal to the lesser of (i) fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

11.2.4 Posting Amount for Participating TO Interconnection Facilities.

11.2.4.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument in an amount of fifteen (15) percent of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Participating TO's Interconnection Facilities or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in

the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

11.2.4.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument in an amount equal to the lesser of (i) fifteen (15) percent of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Participating TO's Interconnection Facilities, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

11.2.5 Cost Estimates Less than Minimum Posting Amounts.

If the costs of either the estimated Network Upgrades or the Participating TO Interconnection Facilities are less than the minimum posting amounts that would apply under Sections 10.2.3 or 10.2.4, then the posting amount required will be equal to the estimated Network Upgrades amount or the Participating TO Interconnection Facilities amount.

11.2.6 Consequences for Failure to Post.

The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this Section shall result in the Interconnection Request being deemed withdrawn and subject to Section 3.8. The Interconnection Customer shall provide the CAISO and the Participating TO with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.

11.2.7 Effect of Decrease in Output on Initial Posting Requirement.

If an Interconnection Customer decreases the electrical output of its facility after the completion of the Phase I Interconnection Study, pursuant to Section 6.7.2, and the CAISO, in consultation with the applicable Participating TO(s), is able to reasonably determine, prior to the date for initial posting of Interconnection Financial Security, that as a result of such decrease (solely or in combination with other modifications made by Interconnection Customers in the same Study Group) some of the Network Upgrades and/or Participating TO Interconnection Facilities identified in the Phase I Interconnection Study will no longer be required, then the calculation of the initial posting of Interconnection Financial Security will not include those Network Upgrades and/or Participating TO Interconnection Facilities. Such determination will be made based on the CAISO's best engineering judgment and will not include any re-studies.

11.3 Interconnection Financial Security-Second and Third Postings

11.3.1 Second Posting

11.3.1.1 The Interconnection Customer shall make second postings, with notice to the CAISO, of two separate Interconnection Financial Security instruments: (i) a second posting relating to the Network Upgrades; (ii) a second posting relating to the Participating TO's Interconnection Facilities. The cost responsibility estimates for calculating the second and

third Interconnection Financial Security Posting shall be set forth in the Phase II Interconnection Study report the System Impact Study, or the Facilities Study.

11.3.1.2 Timing of Posting

The second postings shall be made on or before one hundred eighty (180) calendar days after issuance of the final Phase II Interconnection Study report for Interconnection Customers in a Queue Cluster, or on or before one hundred twenty (120) calendar days after the CAISO provides the results of the Facilities Study for Interconnection Customers in the Independent Study.

Revised Cluster Study Reports. If the CAISO revises a final Phase II Interconnection Study report pursuant to Section 6.8, the second postings will be due by the later of one hundred-eighty (180) calendar days after issuance of the original final Phase II Interconnection Study report or sixty (60) calendar days after issuance of the revised final Phase II Interconnection Study report.

Revised Independent Study Track Reports. If the CAISO revises the final Facilities Study report pursuant to Section 6.8, the postings will be due by the later of one hundred-twenty (120) calendar days after the issuance of the original final Facilities Study report or thirty (30) calendar days from the issuance of the revised Facilities Study report.

11.3.1.3 Posting Requirements and Timing for Parked Option (A) Generating Facilities

For an Interconnection Customer choosing Option (A) whose Generating Facility was not allocated TP Deliverability in the first TP Deliverability allocation following its receipt of the final Phase II Interconnection Study, and who chooses to park the Interconnection Request, the posting due date will be extended by 12 months.

For an Interconnection Customer choosing Option (A) whose Generating Facility was allocated TP Deliverability for less than the full amount of its Interconnection Request, and who chooses to seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle, the postings for RNU, Participating TO Interconnection Facilities and for LDNUs corresponding to the initial allocation of TP Deliverability will be due in accordance with the dates specified above. The posting due date for the LDNUs corresponding to the remainder of the requested Deliverability will be extended by 12 months.

11.3.1.4 Network Upgrade Posting Amounts

11.3.1.4.1 Small Generator Interconnection Customers

For each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster or an Interconnection Customer for a Small Generating Facility in the Independent Study Process, the second Interconnection Financial Security instrument shall bring the security amount up to the following:

1) For Interconnection Customers selecting Energy Only Deliverability Status: the lesser of (i) \$1 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs in either the final Phase II Interconnection Study report, or for Independent Study Process Interconnection Customers, the System Impact Study, or Facilities Study, whichever is lower. In no event shall the total amount posted be less than \$100,000.

2) For Interconnection Customers who have Option (A) Generating Facilities, the lesser of (i) \$1 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower.

However, in no event shall the total amount posted be less than \$100,000.

- 3) For Interconnection Customers who have Option (B) Generating Facilities: the lesser of (i) \$1 million or (ii) the sum of:
 - (a) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower; plus,
 - (b) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for ADNUs in the final Phase II Interconnection Study. However, to the extent that the Option (B) Interconnection Customer's Generating Facility is allocated TP Deliverability, the cost responsibility assigned to the Interconnection Customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. If the allocation of TP Deliverability is for the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will equal zero (0). If the allocation of TP Deliverability is less than the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will be reduced pro rata.

However, in no event shall the total amount posted be less than \$100,000.

11.3.1.4.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument that brings the security amount up to the following:

- 1) For Interconnection Customers selecting Energy Only Deliverability Status: the lesser of (i) \$15 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs in the, final Phase II Interconnection Study, System Impact Study, or Facilities Study, whichever is lower. In no event shall the total amount posted be less than \$500,000.
- 2) For Interconnection Customers, who have Option (A) Generating Facilities the lesser of (i) \$15 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower.

However, in no event shall the total amount posted be less than \$500,000.

3) For Interconnection Customers who have Option (B) Generating Facilities: the lesser of (i) \$15 million or (ii) the sum of:

(a)thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower; plus

(b) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for ADNUs in the final Phase II Interconnection Study. However, to the extent that the Option (B) Interconnection Customer's Generating Facility is allocated TP Deliverability, the cost responsibility assigned to the Interconnection Customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. If the allocation of TP Deliverability is for the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will equal zero (0). If the allocation of TP Deliverability is less than the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will be reduced pro rata.

However, in no event shall the total amount posted be less than \$500,000.

11.3.1.4.3 Cost Estimates Less than Minimum Posting Amounts.

If the costs of the estimated Network Upgrades are less than the posting amounts set forth in Section 11.3.1.4.2 above, then posting amount required will be equal to the estimated Network Upgrade amount.

11.3.1.5 Posting Amount for Participating TO Interconnection Facilities.

11.3.1.5.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities equals the lesser of (i) \$1 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for Participating TO Interconnection Facilities in the final Phase II Interconnection Study or Facilities Study. In no event shall the total amount posted be less than \$100,000.

11.3.1.5.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities equals the lesser of (i) \$15 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for Participating TO Interconnection Facilities in the final Phase II Interconnection Study or Facilities Study. In no event shall the total amount posted be less than \$500,000.

11.3.1.5.3 Cost Estimates Less than Minimum Posting Amounts.

If the costs of the estimated Participating TO Interconnection Facilities are less than the posting amounts set forth in Section 11.3.1.5.2 above, the posting amount required will be equal to the estimated Participating TO Interconnection Facilities amount.

11.3.1.6 Early Commencement of Construction Activities

If the start date for Construction Activities of Network Upgrades or Participating TO's Interconnection Facilities on behalf of the Interconnection Customer is prior to one hundred eighty (180) calendar days after issuance of the final Phase II Interconnection Study report for Interconnection Customers in a Queue Cluster or prior to one hundred twenty (120) calendar days after issuance of the final Facilities Study report for Interconnection Customers in the Independent Study Process, that start date must be set forth in the Interconnection Customer's GIA, and the Interconnection Customer shall make its second posting of Interconnection Financial Security pursuant to Section 10.3.2 rather than Section 10.3.1.

11.3.1.7 Consequences for Failure to Post

The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this Section shall constitute grounds for termination of the GIA pursuant to LGIA Article 2.3 or SGIA Article 3.3, whichever is applicable.

11.3.2 Third Posting

On or before the start of Construction Activities for Network Upgrades or Participating TO's Interconnection Facilities on behalf of the Interconnection Customer, whichever is earlier, the Interconnection Customer shall modify the two separate Interconnection Financial Security instruments posted pursuant to Section 11.3.1.

11.3.2.1 Network Upgrades

With respect to the Interconnection Financial Security Instrument for Network Upgrades, the Interconnection Customer shall modify this Instrument so that it equals one hundred (100) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs, LDNUs and ADNUs as determined in Section 11.3.1.3.1 for Small Generator Interconnection Customers or in Section 11.3.1.3.2 for Large Generator Interconnection Customers.

An Interconnection Customer whose Option (B) Generating Facility was not allocated TP Deliverability and elects to have a party other than the applicable Participating TO(s) construct an LDNU or ADNU is not required to make the third posting for its cost responsibilities for such LDNU or ADNU. However, such Interconnection Customer will be required to demonstrate its financial capability to pay for the full cost of construction of its share, as applicable, of the LDNU or ADNU pursuant to Section 24.4.6.1 of the CAISO Tariff. An Interconnection Customer's election to have a party other than an applicable Participating TO construct an LDNU or ADNU does not relieve the Interconnection Customer of the responsibility to fund or construct such LDNU or ADNU. Upon the Interconnection Customer's demonstration to the CAISO that the Interconnection Customer has expended the amount of the avoided posting requirement on construction of the LDNU or ADNU described here, the Interconnection Customer's second posting for these facilities will be returned to the Interconnection Customer, unless the Participating TO and Interconnection Customer agree to an alternative arrangement.

11.3.2.2 Participating TO Interconnection Facilities

With respect to the Interconnection Financial Security Instrument for Participating TO Interconnection Facilities, the Interconnection Customer shall modify this instrument so that it equals one hundred (100) percent of the total cost responsibility assigned to the Interconnection Customer for Participating TO Interconnection Facilities in the final Phase II Interconnection Study for Interconnection Customers in a Queue Cluster, or the final Facilities Study for Interconnection Customers in the Independent Study Process.

11.3.2.3 Separation of Third Posting

If an Interconnection Customer's Network Upgrades and/or Interconnection Facilities are separated into two or more specific components and/or can be separated into two or more separate and discrete phases of construction and the Participating TO is able to identify and separate the costs of the identified discrete components and/or phases of construction, then the Participating TO, the CAISO, and the Interconnection Customer may negotiate, as part of the Generator Interconnection Agreement, a division of the third Interconnection Financial Security posting into discrete Interconnection Financial Security amounts and may establish discrete milestone dates (however, outside dates must be included) for posting the amounts corresponding to each component and/or phase of construction related to the Network Upgrades and/or Interconnection Facilities described in the Generator Interconnection Agreement.

11.3.2.4 Failure to Post

The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this Section shall constitute grounds for termination of the GIA pursuant to LGIA Article 2.3 or SGIA Article 3.3, whichever is applicable.

11.4 Withdrawal Or Termination- Effect On Financial Security

Except as set forth in Section 11.4.1, withdrawal of an Interconnection Request or termination of a GIA shall allow the applicable Participating TO(s) to liquidate the Interconnection Financial Security, or balance thereof, posted by the Interconnection Customer for Network Upgrades at the time of withdrawal.

To the extent the amount of the liquidated Interconnection Financial Security plus capital, if any, separately provided by the Interconnection Customer to satisfy its obligation to finance Network Upgrades exceeds the total cost responsibility for Network Upgrades assigned to the Interconnection Customer, the applicable Participating TO(s) shall remit to the Interconnection Customer the excess amount.

Withdrawal of an Interconnection Request or termination of a GIA shall result in the release to the Interconnection Customer of any Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities, except with respect to any amounts necessary to pay for costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer for the Participating TO's Interconnection Facilities and for which the applicable Participating TO(s) has not been reimbursed.

11.4.1 Conditions for Partial Recovery of Interconnection Financial Security Upon Withdrawal of Interconnection Request or Termination of GIA

A portion of the Interconnection Financial Security shall be released to the Interconnection Customer, consistent with Section 11.4.2, if the withdrawal of the Interconnection Request or termination of the GIA occurs for any of the following reasons:

- (a) Failure to Secure a Power Purchase Agreement. At the time of withdrawal of the Interconnection Request or termination of the GIA, the Interconnection Customer demonstrates to the CAISO that it has failed to secure an acceptable power purchase agreement for the Energy or capacity of the Generating Facility after a good faith effort to do so. A good faith effort can be established by demonstrating participation in a competitive solicitation process or bilateral negotiations with an entity other than an Affiliate that progressed, at minimum, to the mutual exchange by all counter-parties of proposed term sheets.
- (b) <u>Failure to Secure a Necessary Permit.</u> At the time of withdrawal of the Interconnection Request or termination of the GIA, the Interconnection Customer demonstrates to the CAISO that it has received a final denial from the primary issuing Governmental Authority of any permit or other authorization necessary for the construction or operation of the Generating Facility.
- (c) Increase in the Cost of Participating TO's Interconnection Facilities. The Interconnection Customer withdraws the Interconnection Request or terminates the GIA based on an increase of more than 30% or \$300,000, whichever is greater, in the estimated cost of Participating TO's Interconnection Facilities between the Phase I Interconnection Study and the Phase II Interconnection Study, provided, however, that the Interconnection Financial Security shall not be released if this increase in the estimated cost is due to the Interconnection Customer's requested modification to the interconnection configuration.
- (d) Material Change in Interconnection Customer Interconnection Facilities Created by a CAISO Change in the Point of Interconnection. The Interconnection Customer withdraws the Interconnection Request or terminates the GIA based on a material change from the Phase I Interconnection Study in the Point of Interconnection for the Generating Facility mandated by the CAISO and included in the final Phase II Interconnection Study. A material change in the Point of Interconnection shall be where Point of Interconnection has moved to (i) a different substation, (ii) a different line on a different right of way, or (iii) a materially different location than previously identified on the same line.
- (e) An Interconnection Customer having selected Option (A) in accordance with Section 7.2 is not allocated TP Deliverability and notifies the CAISO of its election to withdraw by the deadline for the second posting of Interconnection Financial Security. This condition does not apply to an Interconnection Customer whose Generating Facility was allocated TP Deliverability for a portion of its Interconnection Request and elected to seek additional Deliverability in the next TP Deliverability allocation process.
- (f) For an Interconnection Customer having selected Option (B) in accordance with Section 7.2 an increase in the Phase II Interconnection Study cost estimates for ANDUs over the Phase I Interconnection Study cost estimates for ADNUs of either twenty (20) percent, or \$20 million, whichever is less. Provided, however, that the Interconnection Financial Security shall not be released if this increase in the estimated cost of ADNUs is due to the Interconnection Customer's requested modification to the interconnection configuration.
- 11.4.2 Determining Refundable Portion of the Interconnection Financial Security for Network Upgrades.
- 11.4.2.1 Withdrawal Between the First Posting and the Deadline for the Second Posting

If the Interconnection Customer either withdraws its Interconnection Request or terminates its GIA under any of the conditions (a)-(f) of Section 11.4.1 above and at any time between the initial posting and the deadline for the second posting of the Interconnection Financial Security for applicable Network Upgrades, then the applicable Participating TO(s) shall liquidate the Interconnection Financial Security for the applicable Network Upgrades and reimburse the Interconnection Customer the lesser of:

- a. the Interconnection Financial Security plus (any other provided security plus any separately
 provided capital) less (all costs and expenses incurred or irrevocably committed to finance
 Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer),
 or
- b. the Interconnection Financial Security plus (any other provided security plus any separately provided capital) minus the lesser of fifty (50) percent of the value of the posted Interconnection Financial Security for Network Upgrades or
- c. \$10,000 per requested and approved megawatt of the Generating Facility Capacity at the time of withdrawal.

11.4.2.2 Withdrawal Between the Second Posting and the Commencement of Construction Activities

If the Interconnection Customer either withdraws or terminates its GIA under any of the conditions (a)-(f) of Section 11.4.1 above and at any time after the between the second posting of the Interconnection Financial Security for applicable Network Upgrades and the Commencement of Construction Activities for such Network Upgrades, then the applicable Participating TO(s) shall liquidate the Interconnection Financial Security for the applicable Network Upgrades and reimburse the Interconnection Customer the lesser of:

- a. the Interconnection Financial Security plus (any other provided security plus any separately
 provided capital) less (all costs and expenses incurred or irrevocably committed to finance
 Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer),
 or
- b. the Interconnection Financial Security plus (any other provided security plus any separately provided capital) minus the lesser of fifty (50) percent of the value of the posted Interconnection Financial Security for Network Upgrades or \$20,000 per requested and approved megawatt of the Generating Facility Capacity at the time of withdrawal.

11.4.2.3 Special Treatment Based on Failure to Obtain Necessary Permit or Authorization from Governmental Authority.

If, at any time after the second posting requirement, the Interconnection Customer withdraws the Interconnection Request or terminates the GIA, as applicable, in accordance with Section 11.4.1(b), and the Delivery Network Upgrades to be financed by the Interconnection Customer are also to be financed by one or more other Interconnection Customers, then Section 11.4.2.2 shall apply, except that the Interconnection Customer shall not be reimbursed for its share of any actual costs incurred or irrevocably committed by the applicable Participating TO(s) for Construction Activities.

11.4.2.4 After Commencement of Construction Activities.

Except as otherwise provided in Section 11.4.2.3, once Construction Activities on Network Upgrades on behalf of the Interconnection Customer commence, any withdrawal of the

Interconnection Request or termination of the GIA by the Interconnection Customer will be treated as follows:

The applicable Participating TO(s) shall liquidate the Interconnection Financial Security, or balance thereof, posted by the Interconnection Customer for Network Upgrades at the time of withdrawal.

To the extent the amount of the liquidated Interconnection Financial Security plus capital, if any, separately provided by the Interconnection Customer to satisfy its obligation to finance Network Upgrades exceeds the total cost responsibility for Network Upgrades assigned to the Interconnection Customer, the applicable Participating TO(s) shall remit to the Interconnection Customer the excess amount.

Withdrawal of an Interconnection Request or termination of a GIA shall result in the release to the Interconnection Customer of any Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities, except with respect to any amounts necessary to pay for costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer for the Participating TO's Interconnection Facilities and for which the applicable Participating TO(s) has not been reimbursed in accordance with this Section.

11.4.2.5 Notification to CAISO and Accounting by Applicable Participating TO(s).

The applicable Participating TO(s) shall notify the CAISO within one (1) Business Day of liquidating any Interconnection Financial Security. Within twenty (20) calendar days of any liquidating event, the applicable Participating TO(s) shall provide the CAISO and Interconnection Customer with an accounting of the disposition of the proceeds of the liquidated Interconnection Financial Security and remit to the CAISO all proceeds not otherwise reimbursed to the Interconnection Customer or applied to costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer in accordance with this Section.

All non-refundable portions of the Interconnection Financial Security remitted to the CAISO in accordance with this Section shall be treated in accordance with CAISO Tariff Section 37.9.4.

11.5 Adjusting Network Upgrade Postings Following Reassessment Process

For Interconnection Customers having selected Option (B), the most recent reassessment conduced under Section 7.4 in any Interconnection Study Cycle following the Interconnection Customer's receipt of its Phase II Interconnection study report shall provide the most recent cost estimates for the Interconnection Customer's ADNUs and the Interconnection Customer shall adjust its Interconnection Financial Security for Network Upgrades to correspond to the most recent estimate for ADNUs.

Section 12 Engineering & Procurement ("E&P") Agreement

Prior to executing a GIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and the applicable Participating TO(s) shall offer the Interconnection Customer, an E&P Agreement that authorizes the applicable Participating TO(s) to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the applicable Participating TO(s) shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the . The E&P Agreement is an optional procedure. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the applicable Participating TO(s) may elect: (i) to take title to the equipment, in which event the applicable Participating TO(s) shall refund the Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

Section 13 Generator Interconnection Agreement (GIA)

13.1 Tender

- 13.1.1 Within thirty (30) Calendar Days after the CAISO provides the final Phase II Interconnection Study report, or the Facilities Study report (or System Impact Study report if the Facilities Study is waived) to the Interconnection Customer, the applicable Participating TO(s) and the CAISO shall tender a draft GIA, together with draft appendices. The draft GIA shall be in the form of the FERC-approved form of GIA set forth in CAISO Tariff Appendix T or Appendix CC, as applicable. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft appendices to the applicable Participating TO(s) and the CAISO within (30) calendar days of receipt.
- 13.1.2 Consistent with Sections 15.3 and 13.1.1, when the transmission system of a Participating TO, in which the Point of Interconnection is not located, is affected, such Participating TO shall tender a separate agreement, in the form of the GIA, as appropriately modified.

13.2 Negotiation

Notwithstanding Section 13.1, at the request of the Interconnection Customer, the applicable Participating TO(s) and CAISO shall begin negotiations with the Interconnection Customer concerning the appendices to the GIA at any time after the CAISO provides the Interconnection Customer with the final Phase II Interconnection Study report. The applicable Participating TO(s) and CAISO and the Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft GIA for not more than one hundred twenty (120) calendar days after the CAISO provides the Interconnection Customer with the final Phase II Interconnection Study report, or the Facilities Study report (or System Impact Study report if the Facilities Study is waived). If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft GIA pursuant to Section 13.1 and request submission of the unexecuted GIA with FERC or initiate Dispute Resolution procedures pursuant to Section 15.5. If the Interconnection Customer requests termination of the negotiations, but, within one hundred twenty (120) calendar days after issuance of the final Phase II Interconnection Study report, fails to request either the filing of the unexecuted GIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed and returned the GIA, requested filing of an unexecuted GIA, or initiated Dispute Resolution procedures pursuant to Section 15.5 within one hundred twenty (120) calendar days after issuance of the final Phase II Interconnection Study report, it shall be deemed to have withdrawn its Interconnection Request. The applicable Participating TO(s) and

CAISO shall provide to the Interconnection Customer a final GIA within fifteen (15) Business Days after the completion of the negotiation process.

13.3 Execution And Filing

The Interconnection Customer shall either: (i) execute the appropriate number of originals of the tendered GIA as specified in the directions provided by the CAISO and return them to the CAISO, as directed, for completion of the execution process; or (ii) request in writing that the applicable Participating TO(s) and CAISO file with FERC a GIA in unexecuted form. The GIA shall be considered executed as of the date that all three Parties have signed the GIA. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered GIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted GIA, the applicable Participating TO(s) and CAISO shall file the GIA with FERC, as necessary, together with an explanation of any matters as to which the Interconnection Customer and the applicable Participating TO(s) or CAISO disagree and support for the costs that the applicable Participating TO(s) propose to charge to the Interconnection Customer under the GIA. An unexecuted GIA should contain terms and conditions deemed appropriate by the applicable Participating TO(s) and CAISO for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted GIA, they may proceed pending FERC action.

13.4 Commencement Of Interconnection Activities

If the Interconnection Customer executes the final GIA, the applicable Participating TO(s), CAISO and the Interconnection Customer shall perform their respective obligations in accordance with the terms of the GIA, subject to modification by FERC. Upon submission of an unexecuted GIA, the Interconnection Customer, applicable Participating TO(s) and CAISO may proceed to comply with the unexecuted GIA, pending FERC action.

13.5 Interconnection Customer To Meet PTO Handbook Requirements

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the applicable Participating TO's Interconnection Handbook.

Section 14 PTOs Interconnection Facilities And Network Upgrades

14.1 Schedule

The applicable Participating TO(s) and the Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of the applicable Participating TO's Interconnection Facilities and the Network Upgrades.

14.2 Construction Sequencing

14.2.1 General

In general, the sequence of construction of Stand Alone Network Upgrades or other Network Upgrades for a single Interconnection Request, or Network Upgrades identified for the interconnection of Generating Facilities associated with multiple Interconnection Requests, shall be determined, to the maximum extent practical, in a manner that accommodates the proposed Commercial Operation Date set forth in the GIA of the Interconnection Customer(s) associated with the Stand Alone Network Upgrades or other Network Upgrades.

14.2.2 Construction of Network Upgrades that are or were an Obligation of an Entity other than the Interconnection Customer

The applicable Participating TO(s) shall be responsible for financing and constructing any Network Upgrades necessary to support the interconnection of the Generating Facility of an Interconnection Customer with a GIA whenever the Network Upgrades were included in the Interconnection Base Case Data for a Phase II Interconnection Study on the basis that they were Network Upgrades associated with Generating Facilities of Interconnection Customers that have an executed GIA (or its equivalent predecessor agreement) or unexecuted GIA (or its equivalent predecessor agreement) filed with FERC, and such GIA specifies that the Participating TO would construct the Network Upgrades, and either:

- the Network Upgrades will not otherwise be completed because such GIA or equivalent predecessor agreement was subsequently terminated or the Interconnection Request has otherwise been withdrawn; or
- (ii) the Network Upgrades will not otherwise be completed in time to support the Interconnection Customer's In-Service Date because construction has not commenced in accordance with the terms of such GIA (or its equivalent predecessor agreement).

Where the Participating TO is constructing ADNUs for Option (B) Interconnection Customers and one of the two conditions above occurs, the Participating TO shall continue to construct such ADNUs with financing provided from the Interconnection Financial Security of those Option (B) Interconnection Customers' Interconnection referred to above, with any additional financing requirements to be reapportioned among those remaining Option (B) Interconnection Customers who still need the ADNUs.

The obligation under this Section arises only after the CAISO, in coordination with the applicable Participating TO(s), determines that the Network Upgrades remain needed to support the interconnection of the Interconnection Customer's Generating Facility notwithstanding, as applicable, the absence or delay of the Generating Facility that is contractually, or was previously contractually, associated with the Network Upgrades.

Further, to the extent the timing of such Network Upgrades was not accounted for in determining a reasonable Commercial Operation Date among the CAISO, applicable Participating TO(s), and the Interconnection Customer as part of the Phase II Interconnection Study, the applicable Participating TO(s) will use Reasonable Efforts to ensure that the construction of such Network Upgrades can accommodate the Interconnection Customer's proposed Commercial Operation Date. If, despite Reasonable Efforts, it is anticipated that the Network Upgrades cannot be constructed in time to accommodate the Interconnection Customer's proposed Commercial Operation Date, the Interconnection Customer may commit to pay the applicable Participating TO(s) any costs associated with expediting construction of the Network Upgrades to meet the original proposed Commercial Operation Date. The expediting costs under Section shall be in addition to the Interconnection Customer's cost responsibility.

14.2.3 Advancing Construction of Network Upgrades that are Part of the CAISO's Transmission Plan

An Interconnection Customer with a GIA, in order to maintain its In-Service Date as specified in the GIA, may request that the CAISO and applicable Participating TO(s) advance to the extent necessary the completion of Network Upgrades that: (i) are

necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an approved CAISO Transmission Plan covering the PTO Service Territory of the applicable Participating TO(s), in time to support such In-Service Date. Upon such request, the applicable Participating TO(s) will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the applicable Participating TO(s) any associated expediting costs. The Interconnection Customer shall be entitled to refunds, if any, in accordance with the GIA, for any expediting costs paid.

14.3 Network Upgrades

With the exception of LDNUs and ADNUs for Option (B) Generating Facilities that were not allocated TP Deliverability, Network Upgrades will be constructed by the applicable Participating TO(s). Interconnection Customers may, at their discretion, select parties other than the applicable PTOs to construct certain LDNUs and ADNUs required by their Option (B) Generating Facilities that are not allocated TP Deliverability, if such LDNUs and ADNUs are eligible for construction by parties other than the applicable PTO pursuant to Section 24.5.2 of the CAISO Tariff. Such ADNUs and LDNUs will be incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1, and 36.11. Unless the Interconnection Customer elects construction by a party other than the applicable Participating TO, the applicable Participating TO(s) will be obligated to construct the LDNUs and ADNUs This Section shall not apply to an Interconnection Customer's right to build Stand Alone Network Upgrade(s) in accordance with the LGIA.

14.3.1 Initial Funding

RNUs and LDNUs shall be funded by the Interconnection Customer(s) either by means of drawing down the Interconnection Financial Security or by the provision of additional capital, at each Interconnection Customer's election, up to a maximum amount no greater than that established by the cost responsibility assigned to each Interconnection Customer(s). The applicable Participating TO(s) shall be responsible for funding any capital costs for the RNUs and LDNUs that exceed the total cost responsibility assigned to the Interconnection Customer(s).

- (a) Where the funding responsibility for any RNUs and LDNUs has been assigned to a single Interconnection Customer, the applicable Participating TO(s) shall invoice the Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, up to a maximum amount no greater than that established by the cost responsibility assigned to each Interconnection Customer(s) for the RNUs or LDNUs, respectively.
- (b) Where the funding responsibility for an RNU has been assigned to more than one Interconnection Customer in accordance with this GIDAP, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such RNU in accordance with their respective cost responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the cost responsibility assigned to that Interconnection Customer.
- (c) Where the funding responsibility for an LDNU has been assigned to more than one Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such LDNUs based on their respective cost responsibilities. Each Interconnection Customer may be invoiced up to a

maximum amount no greater than that established by the cost responsibility assigned to that Interconnection Customer.

(d) Where the funding responsibility for an ADNU being constructed by one or more Participating TO has been assigned to more than one Option (B) Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such ADNUs based on their respective cost responsibilities.

Any permissible extension of the Commercial Operation Date of a Generating Facility will not alter the Interconnection Customer's obligation to finance Network Upgrades where the Network Upgrades are required to meet the earlier Commercial Operation Date(s) of other Generating Facilities that have also been assigned cost responsibility for the Network Upgrades.

14.3.2 Repayment of Amounts Advanced for Network Upgrades and Refund of Interconnection Financial Security

14.3.2.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

Upon the Commercial Operation Date of a Generating Facility that is not a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades as follows.

For RNUs, in accordance with the Interconnection Customer's cost responsibility assigned, up to a maximum of \$60,000 per MW of generating capacity as specified in the GIA.

For LDNUs, except for LDNUs for Option (B) Generating Facilities that were not allocated TP Deliverability, in accordance with the Interconnection Customer's assigned cost responsibility.

Option (B) Generating Facilities that were not allocated TP Deliverability will not receive repayment for LDNUs or ADNUs.

Such repayment amount shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Generating Facility's Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the Commercial Operation Date.

For Network Upgrades for which the Interconnection Customer did not receive repayment, the Interconnection Customer will be eligible to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with the CAISO Tariff Section 36.11 associated with the Network Upgrades, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the Generating Facility in accordance with the GIA.

14.3.2.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades for that completed phase in accordance with the Interconnection Customer's cost responsibility assigned for the

phase and subject to the limitations specified in Section 14.3.2.1, if all of the following conditions are satisfied:

- (a) The Generating Facility is capable of being constructed in phases;
- (b) The Generating Facility is specified in the GIA as being constructed in phases;
- (c) The completed phase corresponds to one of the phases specified in the GIA;
- (d) The phase has achieved Commercial Operation and the Interconnection Customer has tendered notice of the same pursuant to the GIA;
- (e) All parties to the GIA have confirmed that the completed phase meets the requirements set forth in the GIA and any other operating, metering, and interconnection requirements to permit generation output of the entire capacity of the completed phase as specified in the GIA;
- (f) The Network Upgrades necessary for the completed phase to meet the desired level of Deliverability are in service; and
- (g) The Interconnection Customer has posted one hundred (100) percent of the Interconnection Financial Security required for the Network Upgrades for all the phases of the Generating Facility (or if less than one hundred (100) percent has been posted, then all required Interconnection Financial Security instruments to the date of commencement of repayment).

Upon satisfaction of these conditions (a) through (g), the Interconnection Customer shall be entitled to receive a partial repayment of its financed cost responsibility in an amount equal to the percentage of the Generating Facility declared to be in Commercial Operation multiplied by the cost of the Network Upgrades associated with the completed phase. The Interconnection Customer shall be entitled to repayment in this manner for each completed phase until the entire Generating Facility is completed.

A reduction in the electrical output (MW capacity) of the Generating Facility pursuant to Article 5.19.4 of the LGIA shall not diminish the Interconnection Customer's right to repayment pursuant to this Section. If the GIA includes a partial termination provision and the partial termination right has been exercised with regard to a phase that has not been built, then the Interconnection Customer's eligibility for repayment under this Section as to the remaining phases shall not be diminished. If the Interconnection Customer completes one or more phases and then defaults on the GIA, the Participating TO and the CAISO shall be entitled to offset any losses or damages resulting from the default against any repayments made for Network Upgrades related to the completed phases provided that the party seeking to exercise the offset has complied with any requirements which may be required to apply the stream of payments utilized to make the repayment to the Interconnection Customer as an offset.

Any repayment amount for completion of a phase shall include any tax gross-up or other tax-related payments associated with the Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the date by the requirements of items (a) through (g) above have been fulfilled,; or (2) any alternative payment schedule that associates the completion of Network Upgrades with the completion of particular phases and that is mutually agreeable to the Interconnection Customer and Participating TO.

14.3.2.3 Interest Payments and Assignment Rights

Any phased or non-phased repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. The Interconnection Customer may assign such repayment rights to any person.

14.4 Special Provisions For Affected Systems, Other Affected PTOs

The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected Participating TO(s), as applicable. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected Participating TO(s) as well as the repayment by the owner of the Affected System and/or other affected Participating TO(s). If the affected entity is another Participating TO, the initial form of agreement will be the GIA, as appropriately modified.

Any repayment by the owner of the Affected System shall be in accordance with FERC Order No. 2003-B (109 FERC ¶ 61,287).

Section 15 Miscellaneous

15.1 Confidentiality

For the purposes of this Section 15.1, "Party" or "Parties" shall mean the CAISO, Participating TO(s), Interconnection Customer or any combination of the CAISO, Participating TO(s) or the Interconnection Customer.

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Parties receiving the information that the information is confidential.

If requested by any Party, the other Parties shall provide in writing, the basis for asserting that the information referred to in this Section warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

These confidentiality provisions are limited to information provided pursuant to this GIDAP.

15.1.1 Scope

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without

reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of the GIA; or (6) is required, in accordance with Section 15.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the . Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

15.1.2. Release of Confidential Information

No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by FERC's Standards of Conduct requirements set forth in Part 358 of FERC's Regulations, 18 C.F.R. Part 358), or to Affected Systems, or to parties who may be or considering providing financing to or equity participation with the Interconnection Customer, or to potential purchasers or assignees of the Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section.

15.1.3 Rights

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Parties. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

15.1.4 No Warranties

By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.

15.1.5 Standard of Care

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under these procedures or its regulatory requirements.

15.1.6 Order of Disclosure

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of these confidentiality provisions. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled

to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

15.1.7 Remedies

Monetary damages are inadequate to compensate a Party for another Party's breach of its obligations under this Section 15.1. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party breaches or threatens to breach its obligations under this Section 15.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the breach of this Section 15.1, but shall be in addition to all other remedies available at law or in equity. Further, the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 15.1.

15.1.8 Disclosure to FERC, its Staff, or a State

Notwithstanding anything in this Section 15.1 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other applicable Parties when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

- 15.1.9 Subject to the exception in Section 15.1.8, any Confidential Information shall not be disclosed by the other Parties to any person not employed or retained by the other Parties, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Parties, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this GIDAP or as a transmission service provider or a Balancing Authority including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Parties in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.
- **15.1.10** This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a breach of this provision).

15.1.11 The Participating TO or CAISO shall, at the Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

15.2 Delegation Of Responsibility

The CAISO and the Participating TOs may use the services of subcontractors as deemed appropriate to perform their obligations under this GIDAP. The applicable Participating TO or CAISO shall remain primarily liable to the Interconnection Customer for the performance of its respective subcontractors and compliance with its obligations of this GIDAP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

15.3 [Not Used]

15.4 [Not Used]

15.5 Disputes

If an Interconnection Customer disputes withdrawal of its Interconnection Request under Section 3.8, the CAISO will forward any information regarding the disputed withdrawal received under Section 3.8 within one (1) Business Day to the GIDAP Executive Dispute Committee, consisting of the Vice President responsible for administration of this GIDAP, the CAISO Vice President responsible for customer affairs, and an additional Vice President. The GIDAP Executive Dispute Committee shall have five (5) Business Days to determine whether or not to restore the Interconnection Request. If the GIDAP Executive Dispute Committee concludes that the Interconnection Request should have been withdrawn, the Interconnection Customer may seek relief in accordance with the CAISO ADR Procedures.

All disputes, other than those arising from Section 3.8, arising out of or in connection with this GIDAP whereby relief is sought by or from the CAISO shall be settled in accordance with the CAISO ADR Procedures.

Disputes arising out of or in connection with this GIDAP not subject to the CAISO ADR Procedures shall be resolved as follows:

15.5.1 Submission

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the GIA, the GIDAP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) calendar days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the GIA and GIDAP.

15.5.2 External Arbitration Procedures

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) calendar days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) calendar days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 15.5, the terms of this Section 15.5 shall prevail.

15.5.3 Arbitration Decisions

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) calendar days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the GIA and shall have no power to modify or change any provision of the GIA and in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

15.5.4 Costs

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

15.6 Local Furnishing Bonds

15.6.1 Participating TOs That Own Facilities Financed by Local Furnishing Bonds

This provision is applicable only to a Participating TO that has financed facilities for the local furnishing of electric energy with Local Furnishing Bonds. Notwithstanding any other provisions of this, the Participating TO and the CAISO shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this and the GIA if the provision of such Interconnection Service would jeopardize the tax-exempt status of any Local Furnishing Bond(s) issued for the benefit of the Participating TO.

15.6.2 Alternative Procedures for Requesting Interconnection Service

If a Participating TO determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any Local Furnishing Bond(s) issued for the benefit of the Participating TO, it shall advise the Interconnection Customer and the CAISO within (30) calendar days of receipt of the Interconnection Request.

The Interconnection Customer thereafter may renew its request for the same interconnection Service by tendering an application under Section 211 of the Federal Power Act, in which case the Participating TO, within ten (10) calendar days of receiving a copy of the Section 211 application, will waive its rights to a request for service under Section 213(a) of the Federal Power Act and to the issuance of a proposed order under Section 212(c) of the Federal Power Act, and the CAISO and Participating TO shall provide the requested Interconnection Service pursuant to the terms and conditions set forth in this and the GIA.

15.7 Change In CAISO Operational Control

If the CAISO no longer has control of the portion of the CAISO Controlled Grid at the Point of Interconnection during the period when an Interconnection Request is pending, the CAISO shall transfer to the applicable former Participating TO or successor entity which has ownership of the Point of Interconnection any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net deposit amount and the costs that the former Participating TO or successor entity incurs to evaluate the request for interconnection shall be paid by or refunded to the Interconnection Customer, as appropriate. The CAISO shall coordinate with the applicable former Participating TO or successor entity which has ownership of the Point of Interconnection to complete any Interconnection Study, as appropriate, that the CAISO has begun but has not completed. If the CAISO has tendered a draft GIA to the Interconnection Customer but the Interconnection Customer has neither executed the GIA nor requested the filing of an unexecuted GIA with FERC, unless otherwise provided, the Interconnection Customer must complete negotiations with the applicable former Participating TO or successor entity which has the ownership of the Point of Interconnection.

Appendix 1 Interconnection Request INTERCONNECTION REQUEST

Provide three copies of this completed form pursuant to Section 7 of this Appendix 1 below.

1.	Facili	ty with the CAISO Controlled Grid pursuant to the CAISO Tariff (check one): _ Fast Track Process.
		_ Independent Study Process. _ Queue Cluster process.
		Annual Deliverability Assessment pursuant to Section 9.
2.	This I	nterconnection Request is for (check one):
		_ A proposed new Generating Facility.
		_ An increase in the generating capacity or a Material Modification to an existing Generating Facility.
3.	_ Fu	ested Deliverability Status is for (check one): Il Capacity (For Independent Study Process and Queue Cluster Process only) (Note – Deliverability analysis for Independent Study Process is conducted with the next annual Cluster Study)
	CI	rtial Deliverability for MW of electrical output (For Independent Study Process and Queue uster Process only) ergy Only
4.	The I	nterconnection Customer provides the following information:
	a.	Address or location, including the county, of the proposed new Generating Facility site or, in the case of an existing Generating Facility, the name and specific location, including the county, of the existing Generating Facility;
		Project Name:
		Project Location: Street Address:
		City, State:
		County:
		Zip Code:
		GPS Coordinates:
	b.	Maximum net megawatt electrical output (as defined by section 2.c of Attachment A to this appendix) of the proposed new Generating Facility or the amount of net megawatt increase in the generating capacity of an existing Generating Facility;
		mum net megawatt electrical output (MW): or Megawatt increase (MW):
	C.	Type of project (i.e., gas turbine, hydro, wind, etc.) and general description of the

equipment configuration (if more than 1 type is chosen include net MW for each);

	Cogeneration (MW) Reciprocating Engine (MW) Biomass (MW) Steam Turbine (MW) Gas Turbine (MW) Wind (MW) Hydro (MW) Photovoltaic (MW) Combined Cycle (MW)
	Other (please describe):
d. Propos	ral description of the equipment configuration (e.g. number, size, type, etc): Proposed In-Service Date (first date transmission is needed to the facility), Trial Operation date and Commercial Operation Date by day, month, and year and term of service (dates must be sequential); sed Trial Operation Date: sed Commercial Operation Date: sed Term of Service (years):
e.	Name, address, telephone number, and e-mail address of the Interconnection Customer's contact person (primary person who will be contacted);
	Name: Title: Company Name: Street Address: City, State: Zip Code: Phone Number: Fax Number: Email Address: DUNS Number:
f.	Approximate location of the proposed Point of Interconnection (i.e., specify transmission facility interconnection point name, voltage level, and the location of interconnection);
g.	Interconnection Customer data (set forth in Attachment A)
	The Interconnection Customer shall provide to the CAISO the technical data called for in Attachment A to this Interconnection Request. Three (3) copies are required
below f	able deposit amount made payable to California ISO. Send check to CAISO (see section 7 for details) along with the: Innection Request for processing. Innection A (Interconnection Request Generating Facility Data).
	ce of Site Exclusivity as specified in the GIDAP and name(s), address(es) and contact ation of site owner(s) (check one):
Deposi	ched to this Interconnection Request it in lieu of Site Exclusivity attached, Site Exclusivity will be provided at a later date in ance with this

5.

	New Resource Interconnection California ISO P.O. Box 639014 Folsom, CA 95763-9014
	Overnight address: 250 Outcropping Way, Folsom, CA 95630
8.	Representative of the Interconnection Customer to contact:
	[To be completed by the Interconnection Customer] Name:
	Title: Company Name:
	Street Address:
	City, State:
	Zip Code:
	Phone Number:
	Fax Number:
	Email Address:
9.	This Interconnection Request is submitted by:
	Legal name of the Interconnection Customer:
	By (signature):
	Name (type or print):
	Title:
	Date:

This Interconnection Request shall be submitted to the CAISO representative indicated below:

Interconnection Request

Attachment A Generating Facility Data

GENERATING FACILITY DATA

Provide three copies of this completed form.

Generating Facility Information

- 1. Provide two original prints and one reproducible copy (no larger than 36" x 24") of the following:
 - A. Site drawing to scale, showing generator location and Point of Interconnection with the CAISO Controlled Grid.
 - B. Single-line diagram showing applicable equipment such as generating units, step-up transformers, auxiliary transformers, switches/disconnects of the proposed interconnection, including the required protection devices and circuit breakers. For wind and photovoltaic generator plants, the one line diagram should include the distribution lines connecting the various groups of generating units, the generator capacitor banks, the step up transformers, the distribution lines, and the substation transformers and capacitor banks at the Point of Interconnection with the CAISO Controlled Grid.

	A.	Total Generating Facility rated output (MW):
	B.	Generating Facility auxiliary Load (MW):
	C.	Project net capacity (A-B)(MW):
	D.	Standby Load when Generating Facility is off-line (MW):
	E.	Number of Generating Units:
		(Please repeat the following items for each generator)
	F.	Individual generator rated output (MW for each unit):
	G.	Manufacturer:
	Н.	Year Manufactured
	I.	Nominal Terminal Voltage (kV):
	J.	Rated Power Factor (%):
	K.	Rated Power Factor (%): Type (Induction, Synchronous, D.C. with Inverter):
	L.	Phase (three phase or single phase):
	M.	Connection (Delta, Grounded WYE, Ungrounded WYE, impedance grounded):
	N.	Generator Voltage Regulation Range (+/- %):
	Ο.	Generator Power Factor Regulation Range:
	P.	For combined cycle plants, specify the plant net output capacity (MW) for an outage of
		the steam turbine or an outage of a single combustion turbine
3.	Sync	chronous Generator – General Information:
		ase repeat the following for each generator model)
	A.	Rated Generator speed (rpm):
	B.	Rated MVA:
	C.	Rated Generator Power Factor:
	D.	Generator Efficiency at Rated Load (%):
	E.	Moment of Inertia (including prime mover):
	F.	Moment of Inertia (including prime mover): Inertia Time Constant (on machine base) H: sec or MJ/MVA
	G.	SCR (Short-Circuit Ratio - the ratio of the field current required for rated open-circuit voltage to the field current required for rated short-circuit current):
	H.	Please attach generator reactive capability curves.
	l.	Rated Hydrogen Cooling Pressure in psig (Steam Units only):
	-	, .0

J.	Please attach a plot of generator terminal voltage versus field current that shows the air gap line, the open-circuit saturation curve, and the saturation curve at full load and rated power factor.						
	tation System Information ase repeat the following for each generator model)						
(FIE	ase repeat the following for each generator model)						
A.	Indicate the Manufacturer and Type of excitation system used for the generator. For exciter type, please choose from 1 to 9						
	below or describe the specific excitation system.						
	(1) Rotating DC commutator exciter with continuously acting regulator. The regulator power source is independent of the generator terminal voltage and current.						
	(2) Rotating DC commentator exciter with continuously acting regulator. The regulator power source is bus fed from the generator terminal voltage.						
	(3) Rotating DC commutator exciter with non-continuously acting regulator (i.e., regulator adjustments are made in discrete increments).						
	(4) Rotating AC Alternator Exciter with non-controlled (diode) rectifiers. The						
	regulator power source is independent of the generator terminal voltage and						
	current (not bus-fed).						
	(5) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers. The regular power source is fed from the exciter output voltage.						
	(6) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers.						
	(7) Static Exciter with controlled (thyristor) rectifiers. The regulator power source						
	bus-fed from the generator terminal voltage.						
	(8) Static Exciter with controlled (thyristor) rectifiers. The regulator power source						
	bus-fed from a combination of generator terminal voltage and current						
	(compound-source controlled rectifiers system.						
	(9) Other (specify):						
B.	Attach a copy of the block diagram of the excitation system from its instruction manual						
	The diagram should show the input, output, and all feedback loops of the excitation						
	system.						
C.	Excitation system response ratio (ASA):						
D.	Full load rated exciter output voltage:						
E.	Maximum exciter output voltage (ceiling voltage):						
F.	Other comments regarding the excitation system?						
	er System Stabilizer Information						
(Plea	ase repeat the following for each generator model. All new generators are required to inst						
	unless an exemption has been obtained from WECC. Such an exemption can be obtained						
for ur	nits that do not have suitable excitation systems.)						
Α.	Manufacturer:						
	Is the PSS digital or analog?						
	Note the input cianal course for the DSS')						
	Note the input signal source for the PSS?						
B. C.	Bus frequency Shaft speed Bus Voltage						
C.	Bus frequency Shaft speed Bus Voltage Other (specify source)						
	Bus frequency Shaft speed Bus Voltage Other (specify source) Please attach a copy of a block diagram of the PSS from the PSS Instruction Manual a						
C.	Bus frequency Shaft speed Bus Voltage Other (specify source)						

4.

6.	Turbine-Governor Information (Please repeat the following for each generator model)						
	Please complete Part A for steam, gas or combined-cycle turbines, Part B for hydro turbines, and Part C for both.						
	A.	Steam	, gas or	combined-cycle turbines:			
		(1) (2) (3)	If stea	pe of unit (Steam, Gas, or Combined-cycle): im or combined-cycle, does the turbine system have a reheat process (i.e., high and low pressure turbines)? im with reheat process, or if combined-cycle, indicate in the space			
			provid	led, the percent of full load power produced by each turbine: Low pressure turbine or gas turbine:% High pressure turbine or steam turbine:%			
	B.	Hydro	turbine	S:			
	(1) Turbine efficiency at rated load:% (2) Length of penstock:ft (3) Average cross-sectional area of the penstock:ft2 (4) Typical maximum head (vertical distance from the bottom of the pensing gate, to the water level):ft (5) Is the water supply run-of-the-river or reservoir: (6) Water flow rate at the typical maximum head:ft3/sec (7) Average energy rate:kW-hrs/acre-ft (8) Estimated yearly energy production:kW-hrs						
	C.	Compl	ete this	section for each machine, independent of the turbine type.			
		(1) (2) (3) (4)	Turbir Maxin Minim	ne manufacturer:MW num turbine power output:MW rnor information: Droop setting (speed regulation): Is the governor mechanical-hydraulic or electro-hydraulic (Electro-hydraulic governors have an electronic speed sensor and transducer.)?			
			(c)	Other comments regarding the turbine governor system?			
7.	Induc	rtion Gen	erator	Data:			
••		Induction Generator Data:					
	A. B.	Rated Generator Power Factor at rated load: Moment of Inertia (including prime mover):					
	C.	Do you wish reclose blocking? Yes, No Note: Sufficient capacitance may be on the line now, or in the future, and the generator may self-excite unexpectedly.					
	7a Wind Generators Number of generators to be interconnected pursuant to this Interconnection Request:						

	Average Site Elevation:	Single Phase	Three Phase			
	Field Volte:					
	Field Volts:Field Amperes:					
	Motoring Power (MW):					
	Neutral Grounding Resistor (I					
	I22t or K (Heating Time Const					
	Rotor Resistance:					
	Stator Resistance:					
	Stator Reactance: Rotor Reactance:					
	Magnetizing Reactance:					
	Short Circuit Reactance:					
	Exciting Current:					
	Temperature Rise:					
	Frame Size:	<u></u>				
	Design Letter: Reactive Power Required In \	_ /ore /No Lead\:				
	Reactive Power Required In \					
	Total Rotating Inertia, H:					
	Total Rotating menta, n	Per Official Too	J WIVA Dase			
		nection Request. If ot	er Systems Load Flow (PSLF) data sheet must her data sheets are more appropriate to the iscussed at Scoping Meeting.			
8.	 x"1 – positive sequence s x2 – negative sequence r 	ovide the following re subtransient reactanc eactance:p.u*				
	 X0 – zero sequence react 	ance				
	Generator Grounding (select	1 for each model):				
	A Solidly grounded					
	B Grounded through	an impedance				
	(Impedance value in p.u c		p.u.			
	X:p.u.)	9				
	CUngrounded					
	oug. ou					
9.	Step-Up Transformer Data					
	For each step-up transformer,	, fill out the data form	provided in Table 1.			
10.	Interconnection Facilities Line Data					
		es that are to be plani	are to be planned by the Participating TO. ned by the generation developer, please			
Nomir	nal Voltage:kV					
Line L	ength:mile ermination Points:	es				
Line to	ermination Points:					

Conduc	tor Type: Size:						
If bundle	tor Type: Size: ed. Number per phase:, Bundle spacing:in.						
Phase (Configuration, Vertical: , Horizontal:						
Phase S	Spacing: A-B:ft., B-C:ft., C-A:ft.						
Distanc	e of lowest conductor to Ground at full load and 40 C:oft						
Ground	Wire Type: Size: Distance to Ground:ft						
	Fower Configuration Diagram						
Summe	r line ratings in amperes (normal and emergency)						
Positive	Sequence Resistance (R):p.u.** (for entire line length)						
Positive	Sequence Reactance: (X): p.u**(for entire line length)						
Zero Se	equence Resistance (R0): p.u.** (for entire line length)						
Zero Se	equence Reactance: (X0): p.u** (for entire line length)						
Line Ch	equence Reactance: (X0): p.u** (for entire line length) arging (B/2): p.u**						
** On 10	00-MVA and nominal line voltage (kV) Base						
10a.	For Wind/photovoltaic plants, provide collector System Equivalence Impedance Data Provide values for each equivalence collector circuit at all voltage levels.						
Nomina	l Voltage:						
	r line ratings in amperes (normal and emergency)						
	Sequence Resistance (R1): p.u. ** (for entire line length of each collector circuit)						
Positive	Sequence Reactance: (X1): p.u** (for entire line length of each collector circuit)						
Zero Se	equence Resistance (R0): p.u. ** (for entire line length of each collector circuit)						
Zero Se	equence Reactance: (X0): p.u** (for entire line length of each collector circuit)						
Line Ch	arging (B/2): p.u** (for entire line length of each collector circuit)						
	00-MVA and nominal line voltage (kV) Base						
O	or my tana nominar imo voltago (itt) baco						
11.	Inverter-Based Machines						
	Number of inverters to be interconnected pursuant to this Interconnection Request:						
	to other man factors and lateral and an artist of the state of the sta						
	Inverter manufacturer, model name, number, and version:						
	List of adjustable set points for the protective equipment or software:						
	Max design fault contribution current:						
	Harmonics Characteristics:						
	Start-up requirements:						
	Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device then they shall be provided and discussed at Scoping Meeting.						

12. Load Flow and Dynamic Models:

Provide load flow model for the generating plant and its interconnection facilities in GE PSLF *.epc format, including new buses, generators, transformers, interconnection facilities. An equivalent model is required for the plant with generation collector systems. This data should reflect the technical data provided in this Attachment A.

For each generator, governor, exciter and power system stabilizer, select the appropriate dynamic model from the General Electric PSLF Program Manual and provide the required input data. **Include any user written** *.p EPCL files to simulate inverter based plants' dynamic responses (typically needed for inverter based PV/wind plants). Provide a completed *.dyd file that contains the information specified in this section.

If you require assistance in developing the models, we suggest you contact General Electric. Accurate models are important to obtain accurate study results. Costs associated with any changes in facility requirements that are due to differences between model data provided by the generation developer and the actual generator test data, may be the responsibility of the generation developer.

TABLE 1

TRANSFORMER DATA (Provide for each level of transformation)

UNIT	
NUMBER OF TRANSFORMERS	PHASE

RATING	H Winding	X Winding	Y Winding
Rated MVA			
Connection (Delta, Wye, Gnd.)			
Cooling Type (OA,OA/FA, etc):			
Temperature Rise Rating			
Rated Voltage			
BIL			
Available Taps (% of rating)			
Load Tap Changer? (Y or N)			
Tap Settings			
IMPEDANCE	H-X	H-Y	X-Y
Percent			
MVA Base			
Tested Taps			
WINDING RESISTANCE	Н	X	Y
Ohms			
CURRENT TRANSFORMER RATIOS	3		
H X	Y	N	

Supply copy of nameplate and manufacture's test report when available

Appendix 2 [Intentionally Omitted]

Appendix 3

GENERATOR INTERCONNECTION STUDY PROCESS AGREEMENT FOR QUEUE CLUSTERS

THIS AGREEMENT is r	made and entered into this	day of	, 20	by and between
, a	organized and existir	ng under the	e laws of th	ne State of ,
("Interconnection Customer") ar	nd the California Independen	t System O	perator Co	orporation, a California
nonprofit public benefit corporat	ion existing under the laws o	of the State	of Californ	ia, ("CAISO"). The
Interconnection Customer and t	he CAISO each may be refe	rred to as a	a "Party," o	r collectively as the
"Parties."				

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated ______; and

WHEREAS, the Interconnection Customer desires to interconnect the Generating Facility with the CAISO Controlled Grid pursuant to the Queue Cluster process; and

WHEREAS, the Interconnection Customer has requested the CAISO to conduct or cause to be performed Interconnection Studies to assess the system impact of interconnecting the Generating Facility to the CAISO Controlled Grid and to specify and estimate the cost of the equipment, engineering, procurement and construction work needed on the Participating TO's electric system in accordance with Good Utility Practice to physically and electrically connect the Generating Facility to the CAISO Controlled Grid;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Generation Interconnection Procedures in CAISO Tariff Appendix DD or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the CAISO shall conduct or cause to be performed Interconnection Studies, including any accelerated Interconnection Study, in accordance with the CAISO Tariff.
- The scope of the Interconnection Studies shall be subject to the assumptions set forth in Appendices A and B to this Agreement.
- The Interconnection Studies will be based upon the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, subject to any modifications in accordance with Section 6.7.1 of the and modifications to the proposed Commercial Operation Date of the Generating Facility permitted by the . The CAISO reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Studies. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the Interconnection Studies may be modified as specified in the .

- 5.0 The Interconnection Study report for each Interconnection Study shall provide the information specified in the GIDAP.
- 6.0 The Interconnection Customer shall provide an Interconnection Study Deposit, a Site Exclusivity Deposit, if applicable, and other Interconnection Financial Security for the performance of the Interconnection Studies in accordance with the provisions of Sections 3.5.1 and 11 of the GIDAP.

Following the issuance of an Interconnection Study report, the CAISO shall charge and the Interconnection Customer shall pay its share of the actual costs of the Interconnection Study pursuant to Section 3.5.1 of the GIDAP.

Any difference between the deposits made toward the Interconnection Study process and associated administrative costs, including any accelerated studies, and the actual cost of the Interconnection Studies and associated administrative costs shall be paid by or refunded to the Interconnection Customer, in the appropriate allocation, in accordance with Section 3.5.1 of the GIDAP.

- 7.0 Pursuant to Section 3.7 of the GIDAP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The CAISO may provide a copy of the Phase I Interconnection Study results to an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection.
- 8.0 Substantial portions of technical data and assumptions used to perform the Phase I Interconnection Study, such as system conditions, existing and planned generation, and unit modeling, may change after the CAISO provides the Interconnection Study results to the Interconnection Customer. Interconnection Study results will reflect available data at the time the CAISO provides the Phase I Interconnection Study report to the Interconnection Customer. The CAISO shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.

9.0 **[NOT USED]**

- 10.0 The CAISO shall maintain records and accounts of all costs incurred in performing the Interconnection Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the CAISO's offices and at its own expense, to audit the CAISO's records as necessary and as appropriate in order to verify costs incurred by the CAISO. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the CAISO representative, within one hundred eighty (180) calendar days following receipt by the Interconnection Customer of the CAISO's notification of the final costs of the Interconnection Study.
- 11.0 In accordance with Section 3.8 of the GIDAP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate, subject to the requirements of Section 3.5.1 and 11.4 of the GIDAP.
- 12.0 Pursuant to Section 6.1.1 of the GIDAP, this Agreement shall become effective upon the date the fully executed Agreement is received by the CAISO. If the CAISO does not receive the fully executed Agreement and deposit or other Interconnection Financial

Security pursuant to Section 3.5.1 of the GIDAP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the GIDAP.

- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 15.5 of the GIDAP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 15.1 of the GIDAP.
- 13.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 13.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 13.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the or such Appendix to the , as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 13.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

13.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 13.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The CAISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent

of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Ву:	
Printed Name:	
Title:	
Date:	
[Insert name of the Interconnection Customer]	
[Insert name of the Interconnection Customer]	
Ву:	

California Independent System Operator Corporation

Appendix A

ASSUMPTIONS USED IN CONDUCTING THE PHASE I INTERCONNECTION STUDY

The Phase I Interconnection Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on , subject to any modifications in accordance with Section 6.2of the GIDAP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.
Deliverability status requested
(Full Capacity, Partial Deliverability for percent of Full Capacity Energy only)
NOTICE: YOUR CHOICE OF DELIVERABILITY STATUS CAN AFFECT YOUR ABILITY TO QUALIFY YOUR GENERATING FACILITY AS A RESOURCE ADEQUACY RESOURCE OR AFFECT YOUR TRANSACTIONS FOR SALE OF POWER. PLEASE GIVE CONSIDERATION TO YOUR CHOICE OF DELIVERABILITY STATUS

Appendix B

DATA FORM TO BE PROVIDED BY THE INTERCONNECTION CUSTOMER PRIOR TO COMMENCEMENT OF THE PHASE II INTERCONNECTION STUDY

Generating Facility size (MW):
Provide two copies of this completed form and other required plans and diagrams in accordance with Section 8.1 of the GIDAP.
Provide location plan and one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.
One set of metering is required for each generation connection to the new bus or existing CAISO Controlled Grid station. Number of generation connections:
On the one line indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)
On the one line indicate the location of auxiliary power. (Minimum load on CT/PT)
Will an alternate source of auxiliary power be available during CT/PT maintenance? Yes No
Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No (Please indicate on one line).
What type of control system or PLC will be located at the Interconnection Customer's Generating Facility?
What protocol does the control system or PLC use?
Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.
Physical dimensions of the proposed interconnection station:
Bus length from generation to interconnection station:
Line length from interconnection station to the Participating TO's transmission line.
Tower number observed in the field. (Painted on tower leg)*

Number of third party easements required for transmission lines*:
* To be completed in coordination with the Participating TO or CAISO.
Is the Generating Facility in the Participating TO's service area?
Yes No
Local service provider for auxiliary and other power:
Please provide proposed schedule dates:
Environmental survey start:
Environmental impact report submittal:
Procurement of project equipment:
Begin Construction Date:
Generator step-up transformer Date: receives back feed power
Generation Testing Date:
Commercial Operation Date:
Level of Deliverability: Choose one of the following:
Energy Only
Full Capacity
TP Deliverability: Choose one of the following:
Option (A), which means that the Generating Facility requires TP Deliverability to be able to continue to commercial operation.
Option (B), which means that the Interconnection Customer will continue to commercial operation without an allocation of TP Deliverability.

Appendix 4

AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY AGREEMENTS

This Agreement for the Alloca	ation of Responsibilities With Regard to Generator	r Interconnection
Procedures and Interconnection Study	y Agreements ("Agreement"), dated	, is
entered into between the California In	dependent System Operator Corporation ("CAISO	O") and [NAME OF
PTO]	("PTO"). The CAISO and PTO are joint	ly referred to as the
"Parties" and individually, as a "Party.	, II	

WHEREAS, this Agreement will ensure an independent assessment of new Generating Facility impacts on the CAISO Controlled Grid and take advantage of the respective expertise of the Parties to facilitate efficient and cost effective Interconnection Study procedures in a manner consistent with the Federal Energy Regulatory Commission's ("FERC") July 1, 2005 Order (112 FERC ¶ 61,009), FERC's August 26, 2005 Order (112 FERC ¶ 61,231), and prior FERC Orders recognizing that Order No. 2003 did not allocate responsibilities between transmission owners and transmission providers for the provision of Interconnection Service and suggesting those parties enter into an agreement to allocate those responsibilities. Southwest Power Pool, Inc., 106 FERC ¶ 61,254 (2004).

NOW THEREFORE, in view of the respective responsibilities assigned to the Parties and the foregoing FERC orders, and the provisions of the CAISO's Generator Interconnection Procedures set forth in CAISO Tariff Appendix DD, the CAISO and PTO agree to the following allocation of responsibilities for a centralized Interconnection Study process under the direction and oversight of the CAISO:

1. **DEFINITIONS**

Unless otherwise defined herein, all capitalized terms shall have the meaning set forth in the CAISO Tariff.

2. TERM OF AGREEMENT

This Agreement shall become effective upon the date specified in the first paragraph above and shall remain in effect until (1) terminated by all Parties in writing, or (2) with respect to the PTO, upon the termination of that entity's status as a PTO pursuant to the Transmission Control Agreement, as amended from time to time.

3. PROVISIONS FOR ALLOCATION OF RESPONSIBILITIES BETWEEN CAISO AND PTO

3.1 Interconnection Service: The Parties acknowledge that, as the transmission provider, the CAISO is responsible for reliably operating the transmission grid. The Parties also recognize that while the CAISO is a transmission provider under the CAISO Tariff, the CAISO does not own any transmission facilities, and the PTO owns, constructs, and maintains the facilities to which Generating Facilities are to be interconnected, and that the PTO may construct or modify facilities to allow the interconnection. While the Parties recognize that the CAISO will be responsible for conducting or causing to be performed Interconnection Studies and similar studies, the PTO will participate in these studies and conduct certain portions of studies, under the direction and oversight of, and approval by, the CAISO, as provided in this Agreement. The CAISO shall not enter into any Interconnection Study agreement with an Interconnection Customer that is contrary to these rights.

3.2 [INTENTIONALLY LEFT BLANK]

3.3 Transmission Owners' Right to Participation in Studies, Committees and Meetings:

- 3.3.1 In the event that an Interconnection Customer proposes to interconnect a Generating Facility with the PTO's facilities, or the PTO is an owner of an affected system, the PTO shall have the right to participate in any Interconnection Study or any other study conducted in connection with such request for Interconnection Service. "Participate" in this Section 3.3.1 means physically perform any study or portion thereof in connection with an Interconnection Request, under the direction and oversight of, and approval by, the CAISO pursuant to Section 3.4 of this Agreement; provide or receive input, data or other information regarding any study or portion thereof consistent with Section 3.4 of this Agreement; and, when any study or portion thereof in connection with an Interconnection Request is physically performed by an entity other than the PTO, perform activities necessary to adequately review or validate, as appropriate, any results of the study or portions thereof and provide recommendations.
- 3.3.2 In the event that an Interconnection Customer proposes to interconnect a Generating Facility with the PTO's facilities, or the PTO is an owner of an affected system, the PTO shall have the right to participate in all meetings expressly established pursuant to the CAISO. As appropriate, the PTO may participate in all other material or substantive communications in connection with an Interconnection Request.
- 3.4 Interconnection Study Responsibility Allocation: In complying with its responsibility for conducting or causing to be performed Interconnection Studies, the CAISO will assign responsibility for performance of portions of the Interconnection Studies to the PTO, under the direction and oversight of, and approval by, the CAISO, as set forth in Attachment A, except as specifically qualified as follows:
 - 3.4.1 For any tasks specifically assigned to the PTO pursuant to Attachment A or otherwise mutually agreed upon by the CAISO and the PTO, the CAISO reserves the right, on a case-by-case basis, to perform or reassign to a mutually agreed upon and pre-qualified contractor such task only where: (a) the quality and accuracy of prior PTO Interconnection Study work product resulting from assigned tasks has been deemed deficient by the CAISO, the CAISO has notified the PTO pursuant to the notice provision of Section 4.16 of this Agreement in writing of the deficiency, and the deficiency has not been cured pursuant to Section 3.4.2 of this Agreement; (b) the timeliness of PTO Interconnection Study work product has been deemed deficient, and either (i) the CAISO has not been notified of the reasons and actions taken to address the timeliness of the work, or (ii) if notified, the stated reasons and actions taken are insufficient or unjustifiable and the PTO has not cured the deficiency pursuant to Section 3.4.2 of this Agreement; (c) the PTO has failed, in a mutually agreed upon timeframe, to provide the CAISO with information or data related to an Interconnection Request despite a written request by the CAISO, pursuant to Section 3.5 hereof, to do so, and such data is the responsibility of the PTO to provide to the CAISO, subject to Section 4.3 of this Agreement; (d) the PTO advises the CAISO in writing that it does not have the resources to adequately or timely perform the task according to the applicable timelines set forth in Attachment A; or (e) the estimated cost of the PTO performing the task has been determined in writing by the CAISO to significantly exceed the cost of the CAISO or mutually agreed upon contractor performing the task, inclusive of the costs that will be incurred by the PTO in exercising its review rights of the results of any such tasks performed by such third party(ies). If the CAISO deviates from the assignments set forth in Attachment A based on the foregoing factors, the

CAISO will provide the PTO with a written explanation for the deviation and any associated reassignments of work. The PTO may contest the deviation pursuant to the Dispute Resolution procedures set forth in Section 4.1 of this Agreement.

Task(s) may only be reassigned in accordance with this Section 3.4.1 where the PTO has been deemed to be deficient in relation to that (those) particular task(s).

3.4.2 Cure for reassigned Interconnection Study work

The CAISO shall not reassign task(s) without the opportunity to cure, as specified in Section 3.4.1 of this Agreement. The following actions will serve to cure the deficiencies and result in restoring the assignment(s) as provided in Attachment A:

- (a) The CAISO and PTO shall negotiate in good faith and agree to a corrective action plan proposed by the PTO, including a reasonably adequate cure period, and the corrective action plan is satisfactorily implemented.
- (b) The CAISO determines the deficiency is cured without an action plan.
- 3.4.3 Assessment of prior PTO Interconnection Study work shall only be based on work conducted under the process that becomes effective concurrent with the effective date of this Agreement. Further, assessment of prior PTO Interconnection Study work shall be based on work conducted no earlier than the eighteen (18) month period prior to the date of the CAISO notice of deviation from assignments set forth in Attachment A to this Agreement.
- Information Exchange: The PTO shall provide the CAISO, subject to confidentiality requirements in Section 4.3 of this Agreement, with any documentation or data requested by the CAISO reasonably necessary to permit the CAISO to perform, review, validate and approve any Interconnection Study, or portion thereof, performed by the PTO. The CAISO shall provide the PTO with any documentation or data requested by the PTO, subject to confidentiality requirements in Section 4.3 of this Agreement, reasonably necessary to perform, review, and validate any Interconnection Study, or portion thereof.
- 3.6 Consistency with Provisions for Centralized Interconnection Study Process: The CAISO and PTO have determined that the processes and allocation of responsibilities in Section 3.4 of this Agreement ensure that impacts to the CAISO Controlled Grid are independently assessed and that the assignment of responsibilities minimizes handoffs, takes advantage of non-transferable skills, and promotes the efficiency and cost-effectiveness of the centralized Interconnection Study processes, consistent with Section 3.2.
- 3.7 Re-Studies: If any re-studies are required, the CAISO will confer with the PTO as to the need for a re-study. The CAISO will make the final determination regarding the need for a re-study, subject to dispute resolution procedures.
- 3.8 Use of Contractors: Nothing in this Agreement shall prevent either the CAISO or the PTO from using qualified, mutually agreed upon third party contractors to meet that Party's rights or obligations under this Agreement or the . To promote the efficiency of the process, the CAISO and PTO will collaborate to identify a list of the mutually agreed to qualified contractors available to the Parties.
- 3.9 Performance Standards: Each Party shall perform all of its obligations under the GIDAP, this Agreement, and any FERC approved Interconnection Study procedures that may be adopted by the CAISO to implement the GIDAP or this Agreement in accordance with

Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice.

3.10 Recovery of Costs: In accordance with Section 3.5.1 of the GIDAP, the PTO shall recover all actual costs from the CAISO incurred in performing Interconnection Studies or portions thereof assigned to it by the CAISO, including all costs incurred in exercising its right to review, and make recommendations on, Interconnection Studies or portions thereof performed by the CAISO and/or contractors under Section 3.8 of this Agreement.

4 GENERAL TERMS AND CONDITIONS

- **4.1** Dispute Resolution: In the event any dispute regarding the terms, conditions, and performance of this Agreement is not settled informally, the Parties shall follow the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff.
- 4.2 Liability: No Party to this Agreement shall be liable to any other Party for any direct, indirect, special, incidental or consequential losses, damages, claims, liabilities, costs or expenses (including attorneys fees and court costs) arising from the performance or non-performance of its obligations under this Agreement regardless of the cause (including intentional action, willful action, gross or ordinary negligence, or force majeure); provided, however, that a Party may seek equitable or other non-monetary relief as may be necessary to enforce this Agreement and that damages for which a Party may be liable to another Party under another agreement will not be considered damages under this Agreement.
- **4.3** Confidentiality: Confidential Information shall be treated in accordance with Section 14.1 of the GIDAP.
- **4.4** Binding Effect: This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 4.5 Conflicts: In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 4.6 Rules of Interpretation: This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to this Agreement, or such Section of the or such Appendix to the , as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article or Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 4.7 Entire Agreement: This Agreement, including all Attachments hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants, which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 4.8 No Third Party Beneficiaries: This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 4.9 Waiver: The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by a Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Any waiver of this Agreement shall, if requested, be provided in writing. Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- **4.10** Headings: The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- **4.11** Multiple Counterparts: This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 4.12 Modification by the Parties: The Parties may amend this Agreement and any Appendices to this Agreement only (1) by mutual agreement of the Parties by a written instrument duly executed by the Parties, subject to FERC approval or (2) upon the issuance of a FERC order, pursuant to Section 206 of the Federal Power Act. It is the Parties' intent that FERC's right to change any provision of this Agreement shall be limited to the maximum extent permissible by law and that any such change, if permissible, shall be in accordance with the Mobile-Sierra public interest standard applicable to fixed rate agreements. United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956). Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations. Notwithstanding the foregoing, Attachment B (Notices) may be modified as set forth in Section 4.15 of this Agreement, and the CAISO and the PTO may from time to time mutually agree to deviate from Attachment A in accordance with the provisions of this Agreement, however, such deviation shall be subject to Section 4.9 of this Agreement and not considered a course of dealing.
- 4.13 No Partnership: This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act

on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

- 4.14 Assignment: This Agreement may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this Agreement without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
- 4.15 Notices: Any notice, demand, or request provided in this Agreement, or served, given, or made in connection with it, will be in writing and deemed properly served, given, or made if delivered in person, transmitted by facsimile, or sent by United States mail, postage prepaid, to the persons specified in Attachment B hereto unless otherwise provided in this Agreement. Any Party may at any time, by notice to all other Parties, change the designation or address of the person specified in Attachment B as the person who receives notices pursuant to this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement in multiple originals, each of which shall constitute and be an original effective agreement among the Parties.

California Independent System Operator Corporation

By:	
Printed Name:	
Title:	
Date:	
NAME OF PTO]	
Ву:	
Printed Name:	
Fitle:	
Date:	

ATTACHMENT A

INTERCONNECTION STUDY RESPONSIBILITY ALLOCATION

Description of Generator Interconnection Process: Roles and Responsibilities of CAISO and PTOs.

Purpose: This Attachment A to the "AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY AGREEMENTS" serves as further clarification of the roles and responsibilities of the parties to this Agreement. The CAISO will assign responsibility for performance of portions of the Interconnection Studies to the relevant PTOs, under the direction and oversight of, and approval by, the CAISO, as set forth in this Attachment A. This document serves as a general overview of only the roles and responsibilities as between the CAISO and PTOs. This Agreement does not include the process steps, involvement or obligations of the Interconnection Customer (IC). This Agreement is not inclusive of all procedures necessary to comply with all provisions of the GIA, and Generator Interconnection Study Process Agreement for Queue Clusters.

Interconnection Request (IR) Process

- CAISO forwards the IR to the PTO within three (3) Business Days (BD) of receipt of IR from Interconnection Customer (IC)
- 2. PTO(s) provides any feedback regarding IR to CAISO within 3 BD
- 3. CAISO distributes draft Scoping Meeting minutes for review within 5 BD of Scoping Meeting.
- 4. PTO(s) provide any comments to the Scoping Meeting minutes within 2 BD of receipt of draft Scoping Meeting minutes.
- 5. CAISO issues the final Scoping Meeting minutes within 3 BD of receipt of comments.

Phase I Interconnection Study Timeline

Line	Phase I Cluster Study	Typical Calendar Days	Timeline (Days)
1	CAISO and PTOs develop initial Generating Facility groups for initial Dispatch assumptions and cost allocation purposes (except for thermal overload and short circuit mitigation).	1	1
2	PTOs develop draft Base Cases, each representing all Generating Facilities in the queue cluster, and deliver to CAISO.	14	2-15
3	PTO develops preferred and alternative, if applicable, direct interconnection plans, including the need for an Interconnection Grid Substation (IGS).	14	2-15
4	CAISO reviews and approves direct interconnection plans and change files.	5	16-20
5	CAISO updates deliverability base case. PTOs update reliability base cases. PTOs develop draft contingency lists.	10	21-30
6	CAISO reviews and approves reliability base cases and contingency lists.	5	31-35
7	CAISO performs peak Deliverability Assessment identifying constrained facilities and prepares results summary.	21	36-56
8	At the CAISO's direction, the PTOs perform the off- peak Load Flow, and summer peak and off-peak Post Transient and Stability analyses and submits draft study results to CAISO for review and direction.	21	36-56
9	CAISO and PTOs develop mitigation plans and determine RNU and LDNU	21	57-77
10	CAISO develops deliverability base case with TP upgrades only.	7	78-84
11	CAISO performs deliverability assessment for the purpose of determining incremental ADNUs and proposes ADNU.	21	85-105
12	CAISO and PTOs finalize ADNU.	14	106-119
13	CAISO develops shift factors for cost allocation purposes of all Network Upgrades and usage of previously triggered Network Upgrades.	7	120-126
14	CAISO performs off-peak deliverability assessment.	14	127-140
Short C	Circuit Duty		
15	CAISO coordinates with other potentially affected facility owners ¹ .	n/a	n/a
16	CAISO directs PTO to develop Base Case and run short circuit analysis.	106	21-126
17	PTO performs facilities review. (Note: possibly for feedback into the power flow studies and PTO mitigation plans.)	14	127-140
18	PTO prepares draft study results and submits to the CAISO for review and direction.	14	141-154
	cost estimates and schedules		
19	At the CAISO's direction, PTO(s) prepares cost	134	21-154

	estimates and schedules for the direct assignment facilities and Network Upgrades identified in the power flow, short circuit duty, post transient, and stability studies.		
Study R	Report		
20	At the CAISO's direction, PTO(s) prepares draft report for impacts in its service territory.	120	21-140
21	CAISO compiles all results into a draft report that covers grid impacts, as appropriate. CAISO reviews integrated draft report and submits comments, recommendations and direction to the PTO.	10	141-150
22	PTO incorporates CAISO's directions, conclusions and recommendations. If CAISO conclusions and recommendations conflict with PTO conclusions, then CAISO and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in the final report. PTO submits final draft report to the CAISO.	10	151-160
23	CAISO finalizes the report and provides final approved report to ICs, PTO, and any applicable Affected Systems.	10	161-170
	CAISO performs Reassessment and prepares amended study reports for affected earlier queued interconnection customer interconnection requests.		

[footnote 1: In accordance with the WECC Short Circuit Duty Procedure]

Phase II Interconnection Study Process**

**All Interconnection Studies will be under the direction and oversight of, and approval by, the CAISO and may involve more than one PTO.

	 or o more than one river	

Line	Phase II Cluster Study	Typical Calendar Days	Timeline (Days)
1	CAISO and PTOs update Base Cases based on the annual reassessment study results.	7	1-7
2	CAISO reviews and approves Base Cases.	7	8-14

	PTOs update contingency lists.		
3	CAISO reviews and approves contingency lists.	5	15-19
4	CAISO performs peak Deliverability Assessment identifying constrained facilities and prepares results summary.	21	20-40
5	At the CAISO's direction, the PTOs perform the off- peak Load Flow, and summer peak and off-peak Post Transient and Stability analyses and submit draft study results to CAISO for review and direction.	21	20-40
6	CAISO and PTOs determine RNU and LDNU.	21	41-61
7	CAISO performs peak Deliverability Assessment for Option B projects for the purpose of identifying ADNU.	28	62-89
8	PTOs performs additional reliability assessment with all LDNUs modeled and identify	28	62-89
9	CAISO and PTOs determine ADNU and additional RNU and LDNU.	14	90-103
10	CAISO develops cost allocation table.	7	104-110
11	CAISO performs off-peak Deliverability Assessment.	14	111-124
12	PTOs update short-circuit duty results with all RNU and LDNU.	105	20-124
13	PTOs update short-circuit duty results with ADNU.	21	125-145
14	CAISO performs operational deliverability assessment.	60	111-170
15	PTOs perform operational reliability assessment.	60	111-170
Study F	Report Including Facility Costs and Schedules		
16	At the CAISO's direction, PTOs prepare detailed cost estimates and schedules for the direct assignment facilities and schedules for RNU and LDNU identified in the overall plan of service and including individual segments.	91	20-110
17	At the CAISO's direction, PTOs prepare draft reports that include detailed cost estimates and schedules for the direct assignment facilities and Network Upgrades identified in the overall plan of service and including individual segments.	131	20-150
18	CAISO reviews draft report and submits comments, recommendations and direction to the PTOs.	14	151-164
19	PTOs incorporate CAISO directions, conclusions and recommendations and add operational assessment conclusions to the draft report. If CAISO conclusions and recommendations conflict with PTO conclusions, then CAISO and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in the final report.	21	165-185
20	CAISO finalizes the reports and tenders the reports to IC.	20	186-205

ATTACHMENT B

CONTACTS FOR NOTICES

[Section 4.15]

California ISO

Manager, Transmission Engineering 250 Outcropping Way Folsom, CA 95630 Phone: 916.351.2104 Fax: 916.351.2264

[NAME OF PTO]

[Address of PTO]

Appendix 5 Schedule for Release and Review of Per Unit Costs

SCHEDULE FOR RELEASE AND REVIEW OF PER UNIT COSTS

	Schedule for the Release and Review of Per Anticipated		
Line	Unit Costs	Calendar Date(s)	
<u> </u>	Cint Costs	Calcinati Date(3)	
[?]			
[?]			
[?]			
?			
[?]			
[?]			
?			
[?]			
[?]			
	Annual Review, Update, and Posting of Per Unit Costs		
?	PTOs to review and update their per unit costs.	October - mid-January	
	PTOs to provide their updated per unit costs to		
?	the CAISO for CAISO review and posting to the	Mid-January	
	CAISO Website.		
?	CAISO to review and post the PTO per unit costs	Third week of January	
	to the CAISO Website for stakeholder review. Provide two weeks for stakeholders to review the	·	
?	posted per unit costs.	Last week of January and first week of February	
	CAISO to schedule and conduct a one-day	ilist week of rebidary	
[?]	stakeholder meeting in February to discuss the	Second week of February	
	posted per unit costs with stakeholders.		
	Provide two weeks following the scheduled	Last two weeks of	
?	stakeholder meeting for stakeholders to provide	Last two weeks of February	
[[]	comments to the CAISO.	Febluary	
[?]	Provide two weeks for CAISO and PTOs to	First two weeks of March	
	review and address stakeholder comments.		
	Provide three weeks following the stakeholder	First three weeks of	
?	meeting for PTOs to review, update as needed, and finalize their per unit costs.	March	
	PTOs to provide their final per unit costs to the	End of third week of	
?	CAISO for posting to the CAISO Website.	March	
	CAISO to review and post the PTOs' final per unit		
?	costs to the CAISO Website.	Fourth week of March	
	Final per unit costs are posted and available for	Last week of March to	
?	use to estimate the costs of Network Upgrades	Last week of March to first of April	
	and Interconnection Facilities.	ilist of April	

Appendix 6 GIDAP AGREEMENT FOR INDEPENDENT STUDY PROCESS

THIS AGREEMENT is n	nade and entered into this	day of	, 20	by and between
, a	organized and existir	ng under th	e laws of th	ne State of ,
("Interconnection Customer") an	d the California Independen	t System C	Operator Co	orporation, a California
nonprofit public benefit corporati				
Interconnection Customer and the	ne CAISO each may be refe	rred to as	a "Party," o	r collectively as the
"Parties."				

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated ______; and

WHEREAS, the Interconnection Customer desires to interconnect the Generating Facility with the CAISO Controlled Grid pursuant to the Independent Study Process; and

WHEREAS, the Interconnection Customer has requested the CAISO to conduct or cause to be performed Interconnection Studies to assess the system impact of interconnecting the Generating Facility to the CAISO Controlled Grid and to specify and estimate the cost of the equipment, engineering, procurement and construction work needed on the Participating TO's electric system in accordance with Good Utility Practice to physically and electrically connect the Generating Facility to the CAISO Controlled Grid;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Generation Interconnection Procedures in CAISO Tariff Appendix DD or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the CAISO shall conduct or cause to be performed Interconnection Studies in accordance with the CAISO Tariff.
- 3.0 The scope of the applicable Interconnection Studies shall be subject to the assumptions set forth in Appendices A and B to this Agreement.
- The Interconnection Studies will be based upon the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, subject to any modifications in accordance with Section 6.1.2 of the GIDAP and modifications to the proposed Commercial Operation Date of the Generating Facility permitted by the . The CAISO reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Studies. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the Interconnection Studies may be modified as specified in the .
- 5.0 The Interconnection Study report for each Interconnection Study shall provide the information specified in the GIDAP.

6.0 The Interconnection Customer shall provide an Interconnection Study Deposit and other Interconnection Financial Security for the performance of the Interconnection Studies in accordance with the provisions of Sections 3.5.1 and 11 of the GIDAP.

Following the issuance of an Interconnection Study report, the CAISO shall charge and the Interconnection Customer shall pay its share of the actual costs of the Interconnection Study pursuant to Section 3.5.1 of the GIDAP.

Any difference between the deposits made toward the Interconnection Study process and associated administrative costs, including any accelerated studies, and the actual cost of the Interconnection Studies and associated administrative costs shall be paid by or refunded to the Interconnection Customer, in the appropriate allocation, in accordance with Section 3.5.1 of the GIDAP.

- 7.0 Pursuant to Section 3.7 of the GIDAP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The CAISO may provide a copy of the System Impact Study results to an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection.
- 8.0 Substantial portions of technical data and assumptions used to perform the System Impact Study, such as system conditions, existing and planned generation, and unit modeling, may change after the CAISO provides the Interconnection Study results to the Interconnection Customer. Interconnection Study results will reflect available data at the time the CAISO provides the System Impact Study report to the Interconnection Customer. The CAISO shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.
- 9.0 The CAISO shall maintain records and accounts of all costs incurred in performing the Interconnection Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the CAISO's offices and at its own expense, to audit the CAISO's records as necessary and as appropriate in order to verify costs incurred by the CAISO. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the CAISO representative, within one hundred eighty (180) calendar days following receipt by the Interconnection Customer of the CAISO's notification of the final costs of the Interconnection Study.
- 10.0 In accordance with Section 3.8 of the GIDAP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate, subject to the requirements of Sections 3.5.1 and 15.1 of the GIDAP.
- 11.0 This Agreement shall become effective upon the date the fully executed Agreement is received by the CAISO. If the CAISO does not receive the fully executed Agreement and deposit or other Interconnection Financial Security pursuant to Section 3.5.1 of the GIDAP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the GIDAP.
- 12.0 Miscellaneous.

- 12.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 15.5 of the GIDAP.
- 12.2 Confidentiality. Confidential Information shall be treated in accordance with Section 15.1 of the GIDAP.
- 12.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 12.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 12.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the or such Appendix to the , as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 12.6 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 12.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 12.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this

Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 12.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 12.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 12.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 12.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 12.13 Reservation of Rights. The CAISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 12.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 12.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing

arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Ву:	
Printed Name:	
Title:	
Date:	
[Insert name of the Interconnection Customer]	
Ву:	_
Printed Name:	_
Title:	
Data:	

California Independent System Operator Corporation

Appendix A

ASSUMPTIONS USED IN CONDUCTING THE SYSTEM IMPACT STUDY

The System Impact Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on , subject to any modifications in accordance with Section 6.1.2 of the GIDAP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Deliverability Status requested (Full Capacity, Partial Deliverability, or Energy-Only)

Appendix B Data Form, Pre-Facilities Study

DATA FORM TO BE PROVIDED BY THE INTERCONNECTION CUSTOMER PRIOR TO COMMENCEMENT OF THE FACILITIES STUDY

Generating Facility size (MW):
Provide two copies of this completed form and other required plans and diagrams in accordance with Section 4.5 of the GIDAP.
Provide location plan and one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.
One set of metering is required for each generation connection to the new bus or existing CAISO Controlled Grid station. Number of generation connections:
On the one line indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)
On the one line indicate the location of auxiliary power. (Minimum load on CT/PT)
Will an alternate source of auxiliary power be available during CT/PT maintenance? Yes No
Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No (Please indicate on one line).
What type of control system or PLC will be located at the Interconnection Customer's Generating Facility
What protocol does the control system or PLC use?
Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.
Physical dimensions of the proposed interconnection station:
Bus length from generation to interconnection station:
Line length from interconnection station to the Participating TO's transmission line.
Tower number observed in the field. (Painted on tower leg)*

Number of third party easements required for transmission lines*: * To be completed in coordination with the Participating TO or CAISO. Is the Generating Facility in the Participating TO's service area? Yes No Local service provider for auxiliary and other power: Please provide proposed schedule dates: Environmental survey start: Environmental impact report submittal: _____ Procurement of project equipment: Begin Construction Date: Generator step-up transformer Date: receives back feed power Generation Testing Date:_____ Commercial Operation Date: _____ Level of Deliverability Status: Choose one of the following: ____Energy-Only ____Full Capacity

_____Partial Capacity (expressed in fraction of Full Capacity)

Appendix 7

Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Participating TO ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Generator Interconnection and Deliverability Allocation Procedures (GIDAP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.
- 7.0 Contact Information The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer			
Name:			
Contact Person:			
Address:			- <u></u>
City:	State:		_Zip
Telephone (Day):	(Evening)	' :	
Fax:	E-Mail Add	ress:	
Contact (if different from Interco	nnection Customer)		
Name:	,		
Address:			
City:	State:		Zip:
Telephone (Day):	(Eve	ening):	
Fax:	E-Mail /	Address:	
Small Generating Facility Inform Location (if different from above Electric Service Company:):		
Account Number:Inverter Manufacturer:	N	/lodel	
Nameplate Rating: Thre Single Phase Thre System Design Capacity:	(kW)	(kVA)	(AC Volts)
Single Phase Thre	e Phase	_ (*****/	(* ********************************
System Design Capacity:	(kW)	(kVA	<u> </u>
Prime Mover: Photovoltaic Re Turbine Other	eciprocating Engine Fi	uel Cell	
Energy Source: Solar Wind Hy	dro Diesel Natural G	ias	
Fuel Oil Other of the street o	?Yes	No	
If Yes, attach manufacturer's cu	t-sheet showing UL174	1 listing	
		_	. ' Data
Estimated Installation Date:	F:	stimated In-Ser	rvice i jate.

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Appendices 9 and 10 of the Generator Interconnection Procedures (), or the Participating TO has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

2 3	Equipment Type Certifying Entity
Interconnection I hereby certify t agree to abide b Facility No Large has been installed	Customer Signature hat, to the best of my knowledge, the information provided in this Application is true. I by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating ber than 10kW and return the Certificate of Completion when the Small Generating Facility bed.
	Date:
Contingent Appr	roval to Interconnect the Small Generating Facility
Interconnection	of the Small Generating Facility is approved contingent upon the Terms and Conditions ng an Inverter-Based Small Generating Facility No Larger than 10kW and return of the
Company Signa	ture:
Title:	Date:
Application ID no	umber:
Company waive	s inspection/witness test? Yes No

Small Generating Facility Certificate of Completion

Is the Small Generating Facility	owner-installed? Yes No	
Interconnection Customer:		
Contact Person:		
Address:		
Location of the Small Generatin	g Facility (if different from above):	
	State:	
	(Evening):	
	E-Mail Address:	
Electrician:		
Name:		
Address:		
	State:	
Telephone (Day):	(Evening):	
Fax:	E-Mail Address	s:
License number:		
Date Approval to Install Facility	granted by the Company:	
Application ID number:		
Inspection:		
·	as been installed and inspected in co	ompliance with the local
	ao soon motanoa ana mopostoa m oc	
-	nspector, or attach signed electrical in	
2.5 (2002) 0.0001000 Willing II	er color, or allastrongrida dissilibation	
Print Name:		
Date:		

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Company:		
Address:		
City	State	ZIP:
Fax:		
	Small Generating Facility (For Company erating Facility is approved contingent u	ipon the Terms and Conditions for
Interconnecting an Inverte	er-Based Small Generating Facility No L	Š

Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Participating TO (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 Interconnection and Operation

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the Company, and
- 2.3 The Company has either:
 - 2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or
 - 2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or
 - 2.3.3 The Company waives the right to inspect the Small Generating Facility.
- 2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.
- 2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 Access

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 Disconnection

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

- 5.1 For scheduled outages upon reasonable notice.
- 5.2 For unscheduled outages or emergency conditions.
- 5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.
- 5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 Indemnification

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.0 Insurance

The Parties each agree to maintain commercially reasonable amounts of insurance.

8.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

By providing written notice to the Company.

9.2 By the Company

If the Small Generating Facility fails to operate for any consecutive 12-month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

Appendix 8 [intentionally omitted]

Appendix 9 Certification Codes and Standards

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment - Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

Appendix 10

Certification of Small Generator Equipment Packages

- Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in Appendix 9, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

Attachment E - Clean LGIA Appendix EE

Generation Interconnection and Deliverability Allocation Procedures Amendment Filing California Independent System Operator Corporation

Fifth Replacement FERC Electric Tariff

May 25, 2012

Appendix EE

Large Generator Interconnection Agreement
for Interconnection Requests Processed under the Generator Interconnection and Deliverability
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General

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LARGE GENERATOR INTERCONNECTION AGREEMENT

[INTERCONNECTION CUSTOMER]

[PARTICIPATING TO]

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

THIS LARGE GENERATOR INTERCONNECTION AGREEMENT ("LGIA") is made and entered							
into this day of	20	, by and among	, a				
organized and existing under th	e laws of the St	ate/Commonwealth	of ("Interconnection				
Customer" with a Large Genera	iting Facility),	, a	corporation organized and existing				
under the laws of the State of California ("Participating TO"), and California Independent System							
Operator Corporation, a California nonprofit public benefit corporation organized and existing under the							
laws of the State of California ("CAISO"). Interconnection Customer, Participating TO, and CAISO each							
may be referred to as a "Party"	or collectively a	s the "Parties."					

RECITALS

WHEREAS, CAISO exercises Operational Control over the CAISO Controlled Grid; and

WHEREAS, the Participating TO owns, operates, and maintains the Participating TO's Transmission System; and

WHEREAS, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this LGIA; and

WHEREAS, Interconnection Customer, Participating TO, and CAISO have agreed to enter into this LGIA for the purpose of interconnecting the Large Generating Facility with the Participating TO's Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this LGIA, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.

Article 1. Definitions

ADNU shall mean Area Delivery Network Upgrade.

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the CAISO Controlled Grid that may be affected by the proposed interconnection, including the Participating TO's electric system that is not part of the CAISO Controlled Grid.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the Western Electricity Coordinating Council or its successor.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Balancing Authority Area of the Participating TO's Transmission System to which the Generating Facility is directly connected, including requirements adopted pursuant to Section 215 of the Federal Power Act.

Area Deliverability Constraint shall mean a previously identified transmission system operating limit, based on a CAISO interconnection study or transmission planning study and listed on the CAISO website, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

Area Delivery Network Upgrade shall mean a transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

Asynchronous Generating Facility shall mean an induction, doubly-fed, or electronic power generating unit(s) that produces 60 Hz (nominal) alternating current.

Balancing Authority shall mean the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.

Balancing Authority Area shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Base Case shall mean the base case power flow, short circuit, and stability databases used for the Interconnection Studies.

Breach shall mean the failure of a Party to perform or observe any material term or condition of this LGIA.

Breaching Party shall mean a Party that is in Breach of this LGIA.

Business Day shall mean Monday through Friday, excluding federal holidays and the day after Thanksgiving Day.

CAISO Controlled Grid shall mean the system of transmission lines and associated facilities of the parties to the Transmission Control Agreement that have been placed under the CAISO's Operational Control.

CAISO Tariff shall mean the CAISO's tariff, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Calendar Day shall mean any day including Saturday, Sunday or a federal holiday.

Commercial Operation shall mean the status of an Electric Generating Unit or project phase at a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date of an Electric Generating Unit or project phase shall mean the date on which the Electric Generating Unit or project phase at the Generating Facility commences Commercial Operation as agreed to by the applicable Participating TO, the CAISO, and the Interconnection Customer pursuant to Appendix E to this LGIA, and in accordance with the implementation plan agreed to by the Participating TO and the CAISO for multiple individual Electric Generating Units or project phases at a Generating Facility where an Interconnection Customer intends to establish separate Commercial Operation Dates for those Electric Generating Units or project phases.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, subject to Article 22.1.2.

Deliverability shall mean (1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability Assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an Intertie which specifies the amount of resource adequacy capacity measured in MW, that load-serving entities collectively can procure from imports at that Intertie to meet their resource adequacy requirements.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of this LGIA.

Distribution System shall mean those non-CAISO-controlled transmission and distribution facilities owned by the Participating TO.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Participating TO's Distribution System. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which this LGIA becomes effective upon execution by all Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

Electric Generating Unit shall mean an individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered.

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the CAISO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the CAISO Controlled Grid or the electric systems of others to which the CAISO Controlled Grid is directly connected; (3) that, in the case of the Participating TO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Participating TO's Transmission System, Participating TO's Interconnection Facilities, Distribution System, or the electric systems of others to which the Participating TO's electric system is directly connected; or (4) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

FERC shall mean the Federal Energy Regulatory Commission or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean the Interconnection Customer's Electric Generating Unit(s) used for the production of electricity identified in the Interconnection Customer's Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Generator Interconnection and Deliverability Allocation Procedures (GIDAP) shall mean the CAISO protocol that sets forth the interconnection and allocation procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in CAISO Tariff Appendix DD.

Generator Interconnection Study Process Agreement shall mean the agreement between the Interconnection Customer and the CAISO for the conduct of the Interconnection Studies.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, Participating TO, or any Affiliate thereof.

Governing Independent Study Process Interconnection Studies shall mean the engineering study(ies) conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), that evaluates the impact of the proposed interconnection on the safety and reliability of the Participating TO's Transmission System and, if applicable, an Affected System, which shall consist primarily of a Facilities Study as described in Section 4.5 of the Generation Interconnection Procedures, a System Impact Study as described in Section 4.4 of the Generation Interconnection Procedures, a Facilities Study as described in Section 4.5 of the GIDAP, or a System Impact Study as described in Section 4.4 of the GIDAP.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Initial Synchronization Date shall mean the date upon which an Electric Generating Unit is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Participating TO's Interconnection Facilities to obtain back feed power.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of this LGIA, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Participating TO's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Participating TO's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Financial Security shall mean any of the financial instruments listed in Section 11.1 of the GIDAP that are posted by an Interconnection Customer.

Interconnection Handbook shall mean a handbook, developed by the Participating TO and posted on the Participating TO's web site or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's portion of the CAISO Controlled Grid, as such handbook may be modified or superseded from time to time. Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Standards. In the event of a conflict between the terms of this LGIA and the terms of the Participating TO's Interconnection Handbook, the terms in this LGIA shall apply.

Interconnection Request shall mean a request, in the form of Appendix 1 to the GIDAP, in accordance with the CAISO Tariff.

Interconnection Service shall mean the service provided by the Participating TO and CAISO associated with interconnecting the Interconnection Customer's Generating Facility to the Participating TO's Transmission System and enabling the CAISO Controlled Grid to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of this LGIA, the Participating TO's Transmission Owner Tariff, and the CAISO Tariff.

Interconnection Study shall mean

- (i) For Interconnection Requests processed under the Cluster Study Process described in the GIDAP, any of the following: the Phase I Interconnection Study conducted or caused to be performed by the CAISO, the reassessment of the Phase I Interconnection Study Base Case conducted or caused to be performed by the CAISO prior to the commencement of the Phase II Interconnection Study, or the Phase II Interconnection Study conducted or caused to be performed by the CAISO, pursuant to the GIDAP.
- (ii) For Interconnection Requests processed under the Independent Study Process described in the GIDAP, the governing study(ies) conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), pursuant to the GIDAP, which shall consist primarily of a Facilities Study as described in Section 4.5 of the GIDAP or a System Impact Study as described in Section 4.4 of the GIDAP.

IRS shall mean the Internal Revenue Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

LDNU shall mean Local Delivery Network Upgrades.

Local Deliverability Constraint shall mean a transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign full capacity or partial capacity deliverability status to one or more additional generating facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

Local Delivery Network Upgrade shall mean a transmission upgrade or addition identified by the CAISO in the GIDAP study process to relieve a Local Deliverability Constraint.

Loss shall mean any and all damages, losses, and claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

Merchant Network Upgrades – Network Upgrades constructed and owned by an Interconnection Customer or a third party pursuant to Article 5.1.5 of this LGIA, Section 14.3 of the GIDAP, and Sections 24.4.6.1 and 36.11 of the CAISO Tariff.

Metering Equipment shall mean all metering equipment installed or to be installed for measuring the output of the Generating Facility pursuant to this LGIA at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

Network Upgrades shall be Participating TO's Delivery Network Upgrades and Participating TO's Reliability Network Upgrades.

Operational Control shall mean the rights of the CAISO under the Transmission Control Agreement and the CAISO Tariff to direct the parties to the Transmission Control Agreement how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting applicable reliability criteria.

Option (A) Generating Facilities shall mean a Generating Facility for which the Interconnection Customer has selected Option (A) as the Deliverability option under Section 7.2 of the GIDAP.

Option (B) Generating Facilities shall mean a Generating Facility for which the Interconnection Customer has selected Option (B) as the Deliverability option under Section 7.2 of the GIDAP.

Participating TO's Delivery Network Upgrades shall mean the additions, modifications, and upgrades to the Participating TO's Transmission System at or beyond the Point of Interconnection, other than Reliability Network Upgrades, identified in the Interconnection Studies, as identified in Appendix A, to relieve constraints on the CAISO Controlled Grid. Participating TO Delivery Network Upgrades can be either ADNU or LDNU.

Participating TO's Interconnection Facilities shall mean all facilities and equipment owned, controlled or operated by the Participating TO from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to this LGIA, including any modifications, additions or upgrades to such facilities and equipment. Participating TO's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Participating TO's Reliability Network Upgrades shall mean the additions, modifications, and upgrades to the Participating TO's Transmission System at or beyond the Point of Interconnection, identified in the Interconnection Studies, as identified in Appendix A, necessary to interconnect the Large Generating Facility safely and reliably to the Participating TO's Transmission System, which would not have been necessary but for the interconnection of the Large Generating Facility, including additions, modifications, and upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the Participating TO's Transmission System. Participating TO's Reliability Network Upgrades also include, consistent with Applicable Reliability Standards and Applicable Reliability Council practice, the Participating TO's facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's Applicable Reliability Council rating. Participating TO's Reliability Network Upgrades do not include any Participating TO's Delivery Network Upgrades.

Participating TO's Transmission System shall mean the facilities owned and operated by the Participating TO and that have been placed under the CAISO's Operational Control, which facilities form part of the CAISO Controlled Grid.

Party or Parties shall mean the Participating TO, CAISO, Interconnection Customer or the applicable combination of the above.

Phase I Interconnection Study shall mean the engineering study conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), that evaluates the impact of the proposed interconnection on the safety and reliability of the Participating TO's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility(ies) were interconnected without identified project modifications or system modifications, as provided in the On-Peak Deliverability Assessment (as defined in the CAISO Tariff), and other potential impacts, including but not limited to those identified in the Scoping Meeting as described in the GIDAP. The study will also identify the approximate total costs, based on per unit costs, of mitigating these impacts, along with an equitable allocation of those costs to Interconnection Customers for their individual Generating Facilities.

Phase II Interconnection Study shall mean an engineering and operational study conducted or caused to be performed by the CAISO in coordination with the applicable Participating TO(s), to determine the Point of Interconnection and a list of facilities (including the Participating TO's Interconnection Facilities, Network Upgrades, Distribution Upgrades, and Stand Alone Network Upgrades), the cost of those facilities, and the time required to interconnect the Generating Facility(ies) with the Participating TO's Transmission System.

Phased Generating Facility shall mean a Generating Facility that is structured to be completed and to achieve Commercial Operation in two or more successive sequences that are specified in this LGIA, such that each sequence comprises a portion of the total megawatt generation capacity of the entire Generating Facility.

Point of Change of Ownership shall mean the point, as set forth in Appendix A to this LGIA, where the Interconnection Customer's Interconnection Facilities connect to the Participating TO's Interconnection Facilities.

Point of Interconnection shall mean the point, as set forth in Appendix A to this LGIA, where the Interconnection Facilities connect to the Participating TO's Transmission System.

QF PGA shall mean a Qualifying Facility Participating Generator Agreement specifying the special provisions for the operating relationship between a Qualifying Facility and the CAISO, a pro forma version of which is set forth in Appendix B.3 of the CAISO Tariff.

Qualifying Facility shall mean a qualifying cogeneration facility or qualifying small power production facility, as defined in the Code of Federal Regulations, Title 18, Part 292 (18 C.F.R. §292).

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under this LGIA, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

RNU shall mean Reliability Network Upgrades.

Reliability Network Upgrades shall mean the transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Generating Facility(ies) safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for system operating limits, occurring under any system condition, which such system operating limits cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Generating Facility's interconnection may have on a path's WECC rating.

Scoping Meeting shall mean the meeting among representatives of the Interconnection Customer, the Participating TO(s), other Affected Systems, and the CAISO conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Stand Alone Network Upgrades shall mean Network Upgrades, that the Interconnection Customer may construct without affecting day-to-day operations of the CAISO Controlled Grid or Affected Systems during their construction. The Participating TO, the CAISO, and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to this LGIA. (

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, that protects (1) the Participating TO's Transmission System, Participating TO's Interconnection Facilities, CAISO Controlled Grid, and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the CAISO Controlled Grid, Participating TO's Interconnection Facilities, and Affected Systems or on other delivery systems or other generating systems to which the CAISO Controlled Grid is directly connected.

TP Deliverability shall mean the capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

Transmission Control Agreement shall mean CAISO FERC Electric Tariff No. 7.

Trial Operation shall mean the period during which the Interconnection Customer is engaged in on-site test operations and commissioning of an Electric Generating Unit prior to Commercial Operation.

Article 2. Effective Date, Term and Termination

- **2.1 Effective Date.** This LGIA shall become effective upon execution by all Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. The CAISO and Participating TO shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.
- **Term of Agreement.** Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of _____ years from the Effective Date (Term Specified in Individual Agreements to be ten (10) years or such other longer period as the Interconnection Customer may request) and shall be automatically renewed for each successive one-year period thereafter.

2.3 Termination Procedures.

- **2.3.1 Written Notice.** This LGIA may be terminated by the Interconnection Customer after giving the CAISO and the Participating TO ninety (90) Calendar Days advance written notice, or by the CAISO and the Participating TO notifying FERC after the Generating Facility permanently ceases Commercial Operation.
- **2.3.2 Default.** A Party may terminate this LGIA in accordance with Article 17.
- **2.3.3 Suspension of Work.** This LGIA may be deemed terminated in accordance with Article 5.16.
- 2.3.4 Notwithstanding Articles 2.3.1, 2.3.2, and 2.3.3, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA (if applicable), which notice has been accepted for filing by FERC, and the Interconnection Customer has fulfilled its termination cost obligations under Article 2.4.
- **2.4 Termination Costs.** Immediately upon the other Parties' receipt of a notice of the termination of this LGIA pursuant to Article 2.3 above, the CAISO and the Participating TO will determine the total cost responsibility of the Interconnection Customer. If, as of the date of the other Parties' receipt of the notice of termination, the Interconnection Customer has not already paid its share of Network Upgrade costs, as set forth in Appendix G to this LGIA, the Participating TO will liquidate the Interconnection Customer's Interconnection Financial Security associated with its cost responsibility for Network Upgrades, in accordance with Section 11.4 of the GIDAP.

The Interconnection Customer will also be responsible for all costs incurred or irrevocably committed to be incurred in association with the construction of the Participating TO's Interconnection Facilities (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) and other such expenses, including any Distribution Upgrades for which the Participating TO or CAISO has incurred expenses or has irrevocably committed to incur expenses and has not been reimbursed by the Interconnection Customer, as of the date of the other Parties' receipt of the notice of termination, subject to the limitations set forth in this Article 2.4. Nothing in this Article 2.4 shall limit the Parties' rights under Article 17. If, as of the date of the other Parties' receipt of the notice of termination, the Interconnection Customer has not already reimbursed the Participating TO and the CAISO for costs incurred to construct the Participating TO's Interconnection Facilities, the Participating TO will liquidate the Interconnection Customer's Interconnection Financial Security associated with the construction of the Participating TO's Interconnection Facilities, in accordance with Section 11.4 of the GIDAP. If the amount of the Interconnection Financial Security liquidated by the Participating TO under this Article 2.4 is insufficient to compensate the CAISO and the Participating TO for actual costs

associated with the construction of the Participating TO's Interconnection Facilities contemplated in this Article, any additional amounts will be the responsibility of the Interconnection Customer, subject to the provisions of Section 11.4 of the GIDAP. Any such additional amounts due from the Interconnection Customer beyond the amounts covered by its Interconnection Financial Security will be due to the Participating TO immediately upon termination of this LGIA in accordance with Section 11.4 of the GIDAP.

If the amount of the Interconnection Financial Security exceeds the Interconnection Customer's cost responsibility under Section 11.4 of the GIDAP, any excess amount will be released to the Interconnection Customer in accordance with Section 11.4 of the GIDAP.

- 2.4.1 Notwithstanding the foregoing, in the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages, and charges arising as a consequence of termination. With respect to any portion of the Participating TO's Interconnection Facilities that have not yet been constructed or installed, the Participating TO shall to the extent possible and with the Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event the Interconnection Customer elects not to authorize such cancellation, the Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the Participating TO shall deliver such material and equipment, and, if necessary, assign such contracts, to the Interconnection Customer as soon as practicable, at the Interconnection Customer's expense. To the extent that the Interconnection Customer has already paid the Participating TO for any or all such costs of materials or equipment not taken by the Interconnection Customer, the Participating TO shall promptly refund such amounts to the Interconnection Customer, less any costs, including penalties, incurred by the Participating TO to cancel any pending orders of or return such materials, equipment, or contracts.
- 2.4.2 The Participating TO may, at its option, retain any portion of such materials, equipment, or facilities that the Interconnection Customer chooses not to accept delivery of, in which case the Participating TO shall be responsible for all costs associated with procuring such materials, equipment, or facilities.
- 2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.
- **2.5 Disconnection.** Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Participating TO's Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.
- **Survival.** This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Parties pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings and CAISO Tariff Compliance

3.1 Filing. The Participating TO and the CAISO shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority(ies), if required. The Interconnection Customer may

request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this LGIA, or any amendment thereto, the Interconnection Customer shall reasonably cooperate with the Participating TO and CAISO with respect to such filing and to provide any information reasonably requested by the Participating TO or CAISO needed to comply with applicable regulatory requirements.

- **3.2 Agreement Subject to CAISO Tariff.** The Interconnection Customer will comply with all applicable provisions of the CAISO Tariff, including the GIDAP.
- 3.3 Relationship Between this LGIA and the CAISO Tariff. With regard to rights and obligations between the Participating TO and the Interconnection Customer, if and to the extent a matter is specifically addressed by a provision of this LGIA (including any appendices, schedules or other attachments to this LGIA), the provisions of this LGIA shall govern. If and to the extent a provision of this LGIA is inconsistent with the CAISO Tariff and dictates rights and obligations between the CAISO and the Participating TO or the CAISO and the Interconnection Customer, the CAISO Tariff shall govern.
- **3.4** Relationship Between this LGIA and the QF PGA. With regard to the rights and obligations of a Qualifying Facility that has entered into a QF PGA with the CAISO and has entered into this LGIA, if and to the extent a matter is specifically addressed by a provision of the QF PGA that is inconsistent with this LGIA, the terms of the QF PGA shall govern.

Article 4. Scope of Service

4.1 Interconnection Service. Interconnection Service allows the Interconnection Customer to connect the Large Generating Facility to the Participating TO's Transmission System and be eligible to deliver the Large Generating Facility's output using the available capacity of the CAISO Controlled Grid. To the extent the Interconnection Customer wants to receive Interconnection Service, the Participating TO shall construct facilities identified in Appendices A and C that the Participating TO is responsible to construct.

Interconnection Service does not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the CAISO Controlled Grid without incurring congestion costs. In the event of transmission constraints on the CAISO Controlled Grid, the Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in the CAISO Tariff in the same manner as all other resources.

- **4.2 Provision of Service.** The Participating TO and the CAISO shall provide Interconnection Service for the Large Generating Facility.
- **4.3 Performance Standards.** Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is the CAISO or Participating TO, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

- **4.4 No Transmission Service.** The execution of this LGIA does not constitute a request for, nor the provision of, any transmission service under the CAISO Tariff, and does not convey any right to deliver electricity to any specific customer or point of delivery.
- 4.5 Interconnection Customer Provided Services. The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection Customer shall be paid for such services in accordance with Article 11.6.
- 4.6 TP Deliverability. To the extent that an Interconnection Customer is eligible for and has been allocated TP Deliverability pursuant to Section 8.9 of the GIDAP, the Interconnection Customer's retention of such allocated TP Deliverability shall be contingent upon satisfying the obligations set forth in Section 8.9.3 of the GIDAP. In the event that the Interconnection does not retain allocated TP Deliverability with regard to any portion of the Generating Facility, such portion of the Generating Facility shall be deemed to receive Interconnection Service under this LGIA as Energy Only Deliverability Status.

ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION

Interconnection Facilities, Network Upgrades, and Distribution Upgrades shall be studied, designed, and constructed pursuant to Good Utility Practice. Such studies, design and construction shall be based on the assumed accuracy and completeness of all technical information received by the Participating TO and the CAISO from the Interconnection Customer associated with interconnecting the Large Generating Facility.

- **5.1 Options.** Unless otherwise mutually agreed among the Parties, the Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option, Alternate Option, or, if eligible, Merchant Option, set forth below for completion of the Participating TO's Interconnection Facilities and Network Upgrades as set forth in Appendix A, Interconnection Facilities, Network Upgrades, and Distribution Upgrades, and such dates and selected option shall be set forth in Appendix B, Milestones.
 - 5.1.1 Standard Option. The Participating TO shall design, procure, and construct the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, using Reasonable Efforts to complete the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades by the dates set forth in Appendix B, Milestones. The Participating TO shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Participating TO reasonably expects that it will not be able to complete the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades by the specified dates, the Participating TO shall promptly provide written notice to the Interconnection Customer and the CAISO and shall undertake Reasonable Efforts to meet the earliest dates thereafter.
 - **5.1.2 Alternate Option.** If the dates designated by the Interconnection Customer are acceptable to the Participating TO, the Participating TO shall so notify the Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities by the designated dates.

If the Participating TO subsequently fails to complete the Participating TO's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; the Participating TO shall pay the Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by the Interconnection Customer shall be extended day for day for each day that the CAISO refuses to grant clearances to install equipment.

- 5.1.3 Option to Build. If the dates designated by the Interconnection Customer are not acceptable to the Participating TO, the Participating TO shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, the Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades. If the Interconnection Customer elects to exercise its option to assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, it shall so notify the Participating TO within thirty (30) Calendar Days of receipt of the Participating TO's notification that the designated dates are not acceptable to the Participating TO. The Participating TO, CAISO, and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A to this LGIA. Except for Stand Alone Network Upgrades, the Interconnection Customer shall have no right to construct Network Upgrades under this option.
- 5.1.4 Negotiated Option. If the Interconnection Customer elects not to exercise its option under Article 5.1.3, Option to Build, the Interconnection Customer shall so notify the Participating TO within thirty (30) Calendar Days of receipt of the Participating TO's notification that the designated dates are not acceptable to the Participating TO, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades by the Interconnection Customer) pursuant to which the Participating TO is responsible for the design, procurement and construction of the Participating TO's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, the Participating TO shall assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Network Upgrades pursuant to Article 5.1.1, Standard Option.
- 5.1.5 Merchant Option. In addition to any Option to Build set forth in Article 5.1.3 of this LGIA, an Interconnection Customer having an Option (B) Generating Facility may elect to have a party other than the applicable Participating TO construct some or all of the LDNU and ADNU for which the Interconnection Customer has the obligation to fund and which are not subject to reimbursement. Such LDNU and ADNU will be constructed and incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1 and 36.11

- 5.2 General Conditions Applicable to Option to Build. If the Interconnection Customer assumes responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades,
 - (1) the Interconnection Customer shall engineer, procure equipment, and construct the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Participating TO;
 - (2) The Interconnection Customer's engineering, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which the Participating TO would be subject in the engineering, procurement or construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;
 - (3) the Participating TO shall review, and the Interconnection Customer shall obtain the Participating TO's approval of, the engineering design, equipment acceptance tests, and the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, which approval shall not be unreasonably withheld, and the CAISO may, at its option, review the engineering design, equipment acceptance tests, and the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;
 - (4) prior to commencement of construction, the Interconnection Customer shall provide to the Participating TO, with a copy to the CAISO for informational purposes, a schedule for construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from the Participating TO:
 - (5) at any time during construction, the Participating TO shall have the right to gain unrestricted access to the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;
 - (6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by the Participating TO, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;
 - (7) the Interconnection Customer shall indemnify the CAISO and Participating TO for claims arising from the Interconnection Customer's construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;
 - (8) The Interconnection Customer shall transfer control of the Participating TO's Interconnection Facilities to the Participating TO and shall transfer Operational Control of Stand Alone Network Upgrades to the CAISO;
 - (9) Unless the Parties otherwise agree, the Interconnection Customer shall transfer ownership of the Participating TO's Interconnection Facilities and Stand Alone Network

Upgrades to the Participating TO. As soon as reasonably practicable, but within twelve months after completion of the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, the Interconnection Customer shall provide an invoice of the final cost of the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the Participating TO, which invoice shall set forth such costs in sufficient detail to enable the Participating TO to reflect the proper costs of such facilities in its transmission rate base and to identify the investment upon which refunds will be provided;

- (10) the Participating TO shall accept for operation and maintenance the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and
- (11) The Interconnection Customer's engineering, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of the "Option to Build" conditions set forth in Appendix C. Interconnection Customer shall deliver to the Participating TO "as-built" drawings, information, and any other documents that are reasonably required by the Participating TO to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by the Participating TO.
- 5.3 Liquidated Damages. The actual damages to the Interconnection Customer, in the event the Participating TO's Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Participating TO pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Participating TO to the Interconnection Customer in the event that the Participating TO does not complete any portion of the Participating TO's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of the Participating TO's Interconnection Facilities and Network Upgrades, in the aggregate, for which the Participating TO has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Participating TO's Interconnection Facilities and Network Upgrades for which the Participating TO has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Participating TO to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Participating TO's failure to meet its schedule.

No liquidated damages shall be paid to the Interconnection Customer if: (1) the Interconnection Customer is not ready to commence use of the Participating TO's Interconnection Facilities or Network Upgrades to take the delivery of power for the Electric Generating Unit's Trial Operation or to export power from the Electric Generating Unit on the specified dates, unless the Interconnection Customer would have been able to commence use of the Participating TO's Interconnection Facilities or Network Upgrades to take the delivery of power for Electric Generating Unit's Trial Operation or to export power from the Electric Generating Unit, but for the

Participating TO's delay; (2) the Participating TO's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other interconnection customer who has entered into an interconnection agreement with the CAISO and/or Participating TO, action or inaction by the CAISO, or any cause beyond the Participating TO's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

In no event shall the CAISO have any responsibility or liability to the Interconnection Customer for liquidated damages pursuant to the provisions of this Article 5.3.

- 5.4 Power System Stabilizers. The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with Applicable Reliability Standards, the guidelines and procedures established by the Applicable Reliability Council, and the provisions of Section 4.6.5.1 of the CAISO Tariff. The CAISO reserves the right to establish reasonable minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, the Interconnection Customer shall immediately notify the CAISO and the Participating TO and restore the Power System Stabilizers to operation as soon as possible. The CAISO shall have the right to order the reduction in output or disconnection of the Large Generating Facility if the reliability of the CAISO Controlled Grid would be adversely affected as a result of improperly tuned Power System Stabilizers. The requirements of this Article 5.4 shall apply to Asynchronous Generating Facilities in accordance with Appendix H.
- 5.5 Equipment Procurement. If responsibility for construction of the Participating TO's Interconnection Facilities or Network Upgrades is to be borne by the Participating TO, then the Participating TO shall commence design of the Participating TO's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:
 - 5.5.1 The CAISO, in coordination with the applicable Participating TO(s), has completed the Phase II Interconnection Study or Governing Independent Study Interconnection Study pursuant to the applicable Generator Interconnection Facilities Study Process Agreement or other applicable study process agreement;
 - 5.5.2 The Participating TO has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in Appendix B, Milestones; and
 - **5.5.3** The Interconnection Customer has provided security to the Participating TO in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.
- **5.6 Construction Commencement.** The Participating TO shall commence construction of the Participating TO's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:
 - **5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

- 5.6.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Participating TO's Interconnection Facilities and Network Upgrades;
- 5.6.3 The Participating TO has received written authorization to proceed with construction from the Interconnection Customer by the date specified in Appendix B, Milestones; and
- 5.6.4 The Interconnection Customer has provided payment and security to the Participating TO in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.
- 5.7 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Any Party may, at any time, request a progress report from another Party. If, at any time, the Interconnection Customer determines that the completion of the Participating TO's Interconnection Facilities will not be required until after the specified In-Service Date, the Interconnection Customer will provide written notice to the Participating TO and CAISO of such later date upon which the completion of the Participating TO's Interconnection Facilities will be required.
- **5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Interconnection Customer's Interconnection Facilities and Participating TO's Interconnection Facilities and compatibility of the Interconnection Facilities with the Participating TO's Transmission System, and shall work diligently and in good faith to make any necessary design changes.
- 5.9 Limited Operation. If any of the Participating TO's Interconnection Facilities or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Electric Generating Unit, the Participating TO and/or CAISO, as applicable, shall, upon the request and at the expense of the Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Electric Generating Unit and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Participating TO's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. The Participating TO and CAISO shall permit Interconnection Customer to operate the Electric Generating Unit and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.
- **5.10** Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall, at its expense, design, procure, construct, own and install the Interconnection Customer's Interconnection Facilities, as set forth in Appendix A.
 - 5.10.1 Large Generating Facility and Interconnection Customer's Interconnection Facilities Specifications. In addition to the Interconnection Customer's responsibility to submit technical data with its Interconnection Request as required by Section 3.5.1 of the GIDAP, the Interconnection Customer shall submit all remaining necessary specifications for the Interconnection Customer's Interconnection Facilities and Large Generating Facility, including System Protection Facilities, to the Participating TO and the CAISO at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. The Participating TO and the CAISO shall review such specifications pursuant to this LGIA and the GIDAP to ensure that the

Interconnection Customer's Interconnection Facilities and Large Generating Facility are compatible with the technical specifications, operational control, safety requirements, and any other applicable requirements of the Participating TO and the CAISO and comment on such specifications within thirty (30) Calendar Days of the Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

- 5.10.2 Participating TO's and CAISO's Review. The Participating TO's and the CAISO's review of the Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall make such changes to the Interconnection Customer's Interconnection Facilities as may reasonably be required by the Participating TO or the CAISO, in accordance with Good Utility Practice, to ensure that the Interconnection Customer's Interconnection Facilities are compatible with the technical specifications, Operational Control, and safety requirements of the Participating TO or the CAISO.
- 5.10.3 Interconnection Customer's Interconnection Facilities Construction. The Interconnection Customer's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Participating TO and Interconnection Customer agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Participating TO and CAISO "as-built" drawings, information and documents for the Interconnection Customer's Interconnection Facilities and the Electric Generating Unit(s), such as: a one-line diagram, a site plan showing the Large Generating Facility and the Interconnection Customer's Interconnection Facilities, plan and elevation drawings showing the layout of the Interconnection Customer's Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the Interconnection Customer's Interconnection Facilities, and the impedances (determined by factory tests) for the associated step-up transformers and the Electric Generating Units. The Interconnection Customer shall provide the Participating TO and the CAISO specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable. Any deviations from the relay settings, machine specifications, and other specifications originally submitted by the Interconnection Customer shall be assessed by the Participating TO and the CAISO pursuant to the appropriate provisions of this LGIA and the GIDAP.
- 5.10.4 Interconnection Customer to Meet Requirements of the Participating TO's Interconnection Handbook. The Interconnection Customer shall comply with the Participating TO's Interconnection Handbook.
- 5.11 Participating TO's Interconnection Facilities Construction. The Participating TO's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Participating TO and Interconnection Customer agree on another mutually acceptable deadline, the Participating TO shall deliver to the Interconnection Customer

and the CAISO the following "as-built" drawings, information and documents for the Participating TO's Interconnection Facilities [include appropriate drawings and relay diagrams].

The Participating TO will obtain control for operating and maintenance purposes of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities. Pursuant to Article 5.2, the CAISO will obtain Operational Control of the Stand Alone Network Upgrades prior to the Commercial Operation Date.

- 5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Participating TO's Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Participating TO's Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.
- 5.13 Lands of Other Property Owners. If any part of the Participating TO's Interconnection Facilities and/or Network Upgrades are to be installed on property owned by persons other than the Interconnection Customer or Participating TO, the Participating TO shall at the Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Participating TO's Interconnection Facilities and/or Network Upgrades upon such property.
- **5.14 Permits.** Participating TO and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorization that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, the Participating TO shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Participating TO's own, or an Affiliate's generation.
- 5.15 Early Construction of Base Case Facilities. The Interconnection Customer may request the Participating TO to construct, and the Participating TO shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Participating TO's Transmission System which are included in the Base Case of the Interconnection Studies for the Interconnection Customer, and which also are required to be constructed for another interconnection customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.
- **Suspension.** The Interconnection Customer reserves the right, upon written notice to the Participating TO and the CAISO, to suspend at any time all work associated with the construction

and installation of the Participating TO's Interconnection Facilities, Network Upgrades, and/or Distribution Upgrades required under this LGIA, other than Network Upgrades identified in the Phase II Interconnection Study as common to multiple Generating Facilities, with the condition that the Participating TO's electrical system and the CAISO Controlled Grid shall be left in a safe and reliable condition in accordance with Good Utility Practice and the Participating TO's safety and reliability criteria and the CAISO's Applicable Reliability Standards. In such event, the Interconnection Customer shall be responsible for all reasonable and necessary costs which the Participating TO (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Participating TO's electric system during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which the Participating TO cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, the Participating TO shall obtain Interconnection Customer's authorization to do so.

Network Upgrades common to multiple Generating Facilities, and to which the Interconnection Customer's right of suspension shall not extend, consist of Network Upgrades identified for:

- Generating Facilities which are the subject of all Interconnection Requests made prior to the Interconnection Customer's Interconnection Request;
- (ii) Generating Facilities which are the subject of Interconnection Requests within the Interconnection Customer's queue cluster; and
- (iii) Generating Facilities that are the subject of Interconnection Requests that were made after the Interconnection Customer's Interconnection Request but no later than the date on which the Interconnection Customer's Phase II Study Report is issued, and have been modeled in the Base Case at the time the Interconnection Customer seeks to exercise its suspension rights under this Section.

The Participating TO shall invoice the Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work required under this LGIA pursuant to this Article 5.16, and has not requested the Participating TO to recommence the work or has not itself recommenced work required under this LGIA in time to ensure that the new projected Commercial Operation Date for the full Generating Facility Capacity of the Large Generating Facility is no more than three (3) years from the Commercial Operation Date identified in Appendix B hereto, this LGIA shall be deemed terminated and the Interconnection Customer's responsibility for costs will be determined in accordance with Article 2.4 of this LGIA. The suspension period shall begin on the date the suspension is requested, or the date of the written notice to the Participating TO and the CAISO, if no effective date is specified.

5.17 Taxes.

- 5.17.1 Interconnection Customer Payments Not Taxable. The Parties intend that all payments or property transfers made by the Interconnection Customer to the Participating TO for the installation of the Participating TO's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as a refundable advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.
- 5.17.2 Representations And Covenants. In accordance with IRS Notice 2001-82 and IRS Notice 88-129, the Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the CAISO Controlled Grid, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Participating TO for the Participating TO's Interconnection Facilities will be capitalized by the Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Participating TO's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At the Participating TO's request, the Interconnection Customer shall provide the Participating TO with a report from an independent engineer confirming its representation in clause (iii), above. The Participating TO represents and covenants that the cost of the Participating TO's Interconnection Facilities paid for by the Interconnection Customer without the possibility of refund or credit will have no net effect on the base upon which rates are determined.

5.17.3 Indemnification for the Cost Consequence of Current Tax Liability Imposed Upon the Participating TO. Notwithstanding Article 5.17.1, the Interconnection Customer shall protect, indemnify and hold harmless the Participating TO from the cost consequences of any current tax liability imposed against the Participating TO as the result of payments or property transfers made by the Interconnection Customer to the Participating TO under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by the Participating TO.

The Participating TO shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges the Interconnection Customer under this LGIA unless (i) the Participating TO has determined, in good faith, that the payments or property transfers made by the Interconnection Customer to the Participating TO should be reported as income subject to taxation or (ii) any Governmental Authority directs the Participating TO to report payments or property as income subject to taxation; provided, however, that the Participating TO may require the Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to the Participating TO (such as a parental guarantee or a letter of credit), in an amount equal to the cost

consequences of any current tax liability under this Article 5.17. The Interconnection Customer shall reimburse the Participating TO for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from the Participating TO of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by the Participating TO upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. The Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that the Interconnection Customer will pay the Participating TO, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on the Participating TO ("Current Taxes") on the excess of (a) the gross income realized by the Participating TO as a result of payments or property transfers made by the Interconnection Customer to the Participating TO under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit the Participating TO to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on the Participating TO's composite federal and state tax rates at the time the payments or property transfers are received and the Participating TO will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Participating TO's anticipated tax depreciation deductions as a result of such payments or property transfers by the Participating TO's current weighted average cost of capital. Thus, the formula for calculating the Interconnection Customer's liability to the Participating TO pursuant to this Article 5.17.4 can be expressed as follows: (Current Tax Rate x (Gross Income Amount – Present Value of Tax Depreciation))/(1-Current Tax Rate). Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

5.17.5 Private Letter Ruling or Change or Clarification of Law. At the Interconnection Customer's request and expense, the Participating TO shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by the Interconnection Customer to the Participating TO under this LGIA are subject to federal income taxation. The Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of the Interconnection Customer's knowledge. The Participating TO and Interconnection Customer shall cooperate in good faith with respect to the submission of such request, provided, however, the Interconnection Customer and the Participating TO explicitly acknowledge

(and nothing herein is intended to alter) Participating TO's obligation under law to certify that the facts presented in the ruling request are true, correct and complete.

The Participating TO shall keep the Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes the Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. The Participating TO shall allow the Interconnection Customer to attend all meetings with IRS officials about the request and shall permit the Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

- 5.17.6 Subsequent Taxable Events. If, within 10 years from the date on which the relevant Participating TO's Interconnection Facilities are placed in service, (i) the Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and the Participating TO retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on the Participating TO, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.
- **5.17.7 Contests.** In the event any Governmental Authority determines that the Participating TO's receipt of payments or property constitutes income that is subject to taxation, the Participating TO shall notify the Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by the Interconnection Customer and at the Interconnection Customer's sole expense, the Participating TO may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon the Interconnection Customer's written request and sole expense, the Participating TO may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. The Participating TO reserve the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but the Participating TO shall keep the Interconnection Customer informed, shall consider in good faith suggestions from the Interconnection Customer about the conduct of the contest, and shall reasonably permit the Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

The Interconnection Customer shall pay to the Participating TO on a periodic basis, as invoiced by the Participating TO, the Participating TO's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest, including any costs associated with obtaining the opinion of independent tax counsel described in this Article 5.17.7. The Participating TO may abandon any contest if the Interconnection Customer fails to provide payment to the Participating TO within thirty (30) Calendar Days of receiving such invoice.

At any time during the contest, the Participating TO may agree to a settlement either with the Interconnection Customer's consent or, if such consent is refused, after obtaining written advice from independent nationally-recognized tax counsel, selected by the Participating TO, but reasonably acceptable to the Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. The Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by the Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding paragraph. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. The Participating TO may also settle any tax controversy without receiving the Interconnection Customer's consent or any such written advice; however, any such settlement will relieve the Interconnection Customer from any obligation to indemnify the Participating TO for the tax at issue in the contest (unless the failure to obtain written advice is attributable to the Interconnection Customer's unreasonable refusal to the appointment of independent tax counsel).

- 5.17.8 Refund. In the event that (a) a private letter ruling is issued to the Participating TO which holds that any amount paid or the value of any property transferred by the Interconnection Customer to the Participating TO under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to the Participating TO in good faith that any amount paid or the value of any property transferred by the Interconnection Customer to the Participating TO under the terms of this LGIA is not taxable to the Participating TO, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by the Interconnection Customer to the Participating TO are not subject to federal income tax, or (d) if the Participating TO receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by the Interconnection Customer to the Participating TO pursuant to this LGIA, the Participating TO shall promptly refund to the Interconnection Customer the following:
 - (i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon.
 - (ii) interest on any amounts paid by the Interconnection Customer to the Participating TO for such taxes which the Participating TO did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date payment was made by the Interconnection Customer to the date the Participating TO refunds such payment to the Interconnection Customer, and
 - (iii) with respect to any such taxes paid by the Participating TO, any refund or credit the Participating TO receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Participating TO for such overpayment of taxes (including any reduction in interest otherwise payable by the Participating TO to any Governmental Authority resulting from an offset or credit); provided, however, that the Participating TO will remit such amount promptly to the Interconnection Customer only after and to the extent that the Participating TO has received a tax refund, credit or offset from any

Governmental Authority for any applicable overpayment of income tax related to the Participating TO's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

- **5.17.9** Taxes Other Than Income Taxes. Upon the timely request by the Interconnection Customer, and at the Interconnection Customer's sole expense, the CAISO or Participating TO may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the CAISO or Participating TO for which the Interconnection Customer may be required to reimburse the CAISO or Participating TO under the terms of this LGIA. The Interconnection Customer shall pay to the Participating TO on a periodic basis, as invoiced by the Participating TO, the Participating TO's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The Interconnection Customer, the CAISO, and the Participating TO shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the Interconnection Customer to the CAISO or Participating TO for such taxes until they are assessed by a final, nonappealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, the Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Participating TO.
- **Tax Status.** Each Party shall cooperate with the others to maintain the other Parties' tax status. Nothing in this LGIA is intended to adversely affect the CAISO's or any Participating TO's tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. The Interconnection Customer or the Participating TO may undertake modifications to its facilities, subject to the provisions of this LGIA and the CAISO Tariff. If a Party plans to undertake a modification that reasonably may be expected to affect the other Parties' facilities, that Party shall provide to the other Parties sufficient information regarding such modification so that the other Parties may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Parties at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require the Interconnection Customer to submit an Interconnection Request, the CAISO or Participating TO shall provide, within thirty (30) Calendar Days (or such other time as the

Parties may agree), an estimate of any additional modifications to the CAISO Controlled Grid, Participating TO's Interconnection Facilities, Network Upgrades or Distribution Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof. The Participating TO and the CAISO shall determine if a Large Generating Facility modification is a Material Modification in accordance with the GIDAP.

- **5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.
- 5.19.3 Modification Costs. The Interconnection Customer shall not be directly assigned the costs of any additions, modifications, or replacements that the Participating TO makes to the Participating TO's Interconnection Facilities or the Participating TO's Transmission System to facilitate the interconnection of a third party to the Participating TO's Interconnection Facilities or the Participating TO's Transmission System, or to provide transmission service to a third party under the CAISO Tariff. The Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.
- 5.19.4 Permitted Reductions in output capacity (MW generating capacity) of the Generating Facility. An Interconnection Customer may reduce the MW capacity of the Generating Facility by up to five percent (5%) for any reason, during the time period between the Effective Date of this LGIA and the Commercial Operation Date. The five percent (5%) value shall be established by reference to the MW generating capacity as set forth in the "Interconnection Customer's Data Form To Be Provided by the Interconnection Customer Prior to Commencement of the Phase II Interconnection Study" (Appendix B to Appendix 3 of the GIDAP).

The CAISO (in consultation with the applicable Participating TO(s) will consider an Interconnection Customer's request for a reduction in the MW generating capacity greater than five percent (5%) under limited conditions where the Interconnection Customer reasonably demonstrates to the Participating TO and CAISO that the MW generation capacity reduction is warranted due to reasons beyond the control of the Interconnection Customer. Reasons beyond the control of the Interconnection Customer shall consist of any one or more of the following:

- (i) the Interconnection Customer's failure to secure required permits and other governmental approvals to construct the Generating Facility at its total MW generating capacity as specified in its Interconnection Request after the Interconnection Customer has made diligent effort to secure such permits or approvals;
- (ii) the Interconnection Customer's receipt of a written statement from the permitting or approval authority (such as a draft environmental impact report) indicating that construction of a Generating Facility of the total MW generating capacity size

specified in the Interconnection Request will likely result in disapproval due to a significant environmental or other impact that cannot be mitigated;

(iii) failure to obtain the legal right of use of the full site acreage necessary to construct and/or operate the total MW generating capacity size for the entire Generating Facility, after the Interconnection Customer has made a diligent attempt to secure such legal right of use. This subsection (iii) applies only where an Interconnection Customer has previously demonstrated and maintained its demonstration of Site Exclusivity prior to invoking this subsection as a reason for downsizing.

If relying on subsections (i) or (ii) above, in order to be eligible for a capacity reduction greater than five percent (5%), the Interconnection Customer must also demonstrate to the CAISO that a reduction of MW generating capacity of the Generating Facility to the reduced size that the Interconnection Customer proposes will likely overcome the objections of the permitting/approving authority or otherwise cause the permitting/approving authority to grant the permit or approval. The Interconnection Customer may satisfy this demonstration requirement by submitting to the CAISO either a writing from the permitting/approving authority to this effect or other evidence of a commitment by the permitting/approving authority that the MW capacity reduction will remove the objections of the authority to the permit/approval application.

If relying on subsection (iii) above, the Interconnection Customer must also reasonably demonstrate to the CAISO that the proposed reduced-capacity Generating Facility can be constructed on the site over which the Interconnection Customer has been able to obtain legal rights of use.

Upon such demonstration to the reasonable satisfaction of the CAISO (after consultation with the applicable Participating TO) the CAISO will permit such reduction. No permitted reduction of MW generation capacity under this Article shall operate to diminish the Interconnection Customer's cost responsibility for Network Upgrades or to diminish the Interconnection Customer's right to repayment for financing of Network Upgrades under this LGIA.

5.20 Annual Reassessment Process. In accordance with Section 7.4 of the GIDAP, the CAISO will perform an annual reassessment, as part of a queue cluster interconnection study cycle, in which it will update certain base case data prior to beginning the GIDAP Phase II Interconnection Studies. As set forth in Section 7.4, the CAISO may determine through this assessment that Delivery Network Upgrades already identified and included in executed generator interconnection agreements should be modified in order to reflect the current circumstances of interconnection customers in the queue, including any withdrawals therefrom, and any additions and upgrades approved in the CAISO's most recent TPP cycle. To the extent that this determination modifies the scope or characteristics of, or the cost responsibility for, any Delivery Network Upgrades set forth in Appendix A to this LGIA, such modification(s) will be reflected through an amendment to this LGIA.

Article 6. Testing and Inspection

Pre-Commercial Operation Date Testing and Modifications. Prior to the Commercial Operation Date, the Participating TO shall test the Participating TO's Interconnection Facilities,

Network Upgrades, and Distribution Upgrades and the Interconnection Customer shall test the Large Generating Facility and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. The Interconnection Customer shall bear the cost of all such testing and modifications. The Interconnection Customer shall not commence initial parallel operation of an Electric Generating Unit with the Participating TO's Transmission System until the Participating TO provides prior written approval, which approval shall not be unreasonably withheld, for operation of such Electric Generating Unit. The Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

- 6.2 Post-Commercial Operation Date Testing and Modifications. Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Participating TO's Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.
- **Right to Observe Testing.** Each Party shall notify the other Parties at least fourteen (14) Calendar Days in advance of its performance of tests of its Interconnection Facilities or Generating Facility. The other Parties have the right, at their own expense, to observe such testing.
- Right to Inspect. Each Party shall have the right, but shall have no obligation to: (i) observe another Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of another Party's System Protection Facilities and other protective equipment; and (iii) review another Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

Article 7. Metering

- Reliability Council requirements. The Interconnection Customer and CAISO shall comply with the provisions of the CAISO Tariff regarding metering, including Section 10 of the CAISO Tariff. Unless otherwise agreed by the Participating TO and the Interconnection Customer, the Participating TO may install additional Metering Equipment at the Point of Interconnection prior to any operation of any Electric Generating Unit and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at the CAISO's or Participating TO's option for its respective Metering Equipment, compensated to, the Point of Interconnection. The CAISO shall provide metering quantities to the Interconnection Customer upon request in accordance with the CAISO Tariff by directly polling the CAISO's meter data acquisition system. The Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.
- **7.2 Check Meters.** The Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check the CAISO-polled meters or the Participating TO's meters. Such check meters shall be

for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except in the case that no other means are available on a temporary basis at the option of the CAISO or the Participating TO. The check meters shall be subject at all reasonable times to inspection and examination by the CAISO or Participating TO or their designees. The installation, operation and maintenance thereof shall be performed entirely by the Interconnection Customer in accordance with Good Utility Practice.

7.3 Participating TO Retail Metering. The Participating TO may install retail revenue quality meters and associated equipment, pursuant to the Participating TO's applicable retail tariffs.

Article 8. Communications

- 8.1 Interconnection Customer Obligations. The Interconnection Customer shall maintain satisfactory operating communications with the CAISO in accordance with the provisions of the CAISO Tariff and with the Participating TO's dispatcher or representative designated by the Participating TO. The Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. The Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to the CAISO and Participating TO as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by the CAISO and Participating TO. Any required maintenance of such communications equipment shall be performed by the Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.
- **8.2** Remote Terminal Unit. Prior to the Initial Synchronization Date of each Electric Generating Unit, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by the Interconnection Customer, or by the Participating TO at the Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by the CAISO and by the Participating TO through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1.

Telemetry to the CAISO shall be provided in accordance with the CAISO's technical standards for direct telemetry. For telemetry to the Participating TO, the communication protocol for the data circuit(s) shall be specified by the Participating TO. Instantaneous bi-directional real power and reactive power flow and any other required information must be telemetered directly to the location(s) specified by the Participating TO.

Each Party will promptly advise the other Parties if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by another Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

8.3 No Annexation. Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

Article 9. Operations

9.1 General. Each Party shall comply with Applicable Reliability Standards and the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

- 9.2 Balancing Authority Area Notification. At least three months before Initial Synchronization Date, the Interconnection Customer shall notify the CAISO and Participating TO in writing of the Balancing Authority Area in which the Large Generating Facility intends to be located. If the Interconnection Customer intends to locate the Large Generating Facility in a Balancing Authority Area other than the Balancing Authority Area within whose electrically metered boundaries the Large Generating Facility is located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Balancing Authority Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Balancing Authority Area.
- 9.3 CAISO and Participating TO Obligations. The CAISO and Participating TO shall cause the Participating TO's Transmission System to be operated and controlled in a safe and reliable manner and in accordance with this LGIA. The Participating TO at the Interconnection Customer's expense shall cause the Participating TO's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. The CAISO and Participating TO may provide operating instructions to the Interconnection Customer consistent with this LGIA and Participating TO and CAISO operating protocols and procedures as they may change from time to time. The Participating TO and CAISO will consider changes to their operating protocols and procedures proposed by the Interconnection Customer.
- 9.4 Interconnection Customer Obligations. The Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. The Interconnection Customer shall operate the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Balancing Authority Area of which it is part, including such requirements as set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. A Party may request that another Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA. The Interconnection Customer shall not commence Commercial Operation of an Electric Generating Unit with the Participating TO's Transmission System until the Participating TO provides prior written approval, which approval shall not be unreasonably withheld, for operation of such Electric Generating Unit.
- **9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, the Interconnection Customer is responsible for the proper synchronization of each Electric Generating Unit to the CAISO Controlled Grid.

9.6 Reactive Power.

- 9.6.1 Power Factor Design Criteria. For all Generating Facilities other than Asynchronous Generating Facilities, the Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the terminals of the Electric Generating Unit at a power factor within the range of 0.95 leading to 0.90 lagging, unless the CAISO has established different requirements that apply to all generators in the Balancing Authority Area on a comparable basis. For Asynchronous Generating Facilities, the Interconnection Customer shall design the Large Generating Facility to maintain power factor criteria in accordance with Appendix H of this LGIA.
- **9.6.2 Voltage Schedules.** Once the Interconnection Customer has synchronized an Electric Generating Unit with the CAISO Controlled Grid, the CAISO or Participating TO shall require the Interconnection Customer to maintain a voltage schedule by operating the Electric Generating Unit to produce or absorb reactive power within the design limitations of the Electric Generating Unit set forth in Article 9.6.1 (Power Factor Design Criteria).

CAISO's voltage schedules shall treat all sources of reactive power in the Balancing Authority Area in an equitable and not unduly discriminatory manner. The Participating TO shall exercise Reasonable Efforts to provide the Interconnection Customer with such schedules at least one (1) day in advance, and the CAISO or Participating TO may make changes to such schedules as necessary to maintain the reliability of the CAISO Controlled Grid or the Participating TO's electric system. The Interconnection Customer shall operate the Electric Generating Unit to maintain the specified output voltage or power factor within the design limitations of the Electric Generating Unit set forth in Article 9.6.1 (Power Factor Design Criteria), and as may be required by the CAISO to operate the Electric Generating Unit at a specific voltage schedule within the design limitations set forth in Article 9.6.1. If the Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the CAISO and the Participating TO.

- 9.6.2.1 Governors and Regulators. Whenever an Electric Generating Unit is operated in parallel with the CAISO Controlled Grid and the speed governors (if installed on the Electric Generating Unit pursuant to Good Utility Practice) and voltage regulators are capable of operation, the Interconnection Customer shall operate the Electric Generating Unit with its speed governors and voltage regulators in automatic operation. If the Electric Generating Unit's speed governors and voltage regulators are not capable of such automatic operation, the Interconnection Customer shall immediately notify the CAISO and the Participating TO and ensure that the Electric Generating Unit operates as specified in Article 9.6.2 through manual operation and that such Electric Generating Unit's reactive power production or absorption (measured in MVARs) are within the design capability of the Electric Generating Unit(s) and steady state stability limits. The Interconnection Customer shall restore the speed governors and voltage regulators to automatic operation as soon as possible. If the Large Generating Facility's speed governors and voltage regulators are improperly tuned or malfunctioning, the CAISO shall have the right to order the reduction in output or disconnection of the Large Generating Facility if the reliability of the CAISO Controlled Grid would be adversely affected. The Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the CAISO Controlled Grid or trip any Electric Generating Unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Balancing Authority Area on a comparable basis.
- 9.6.3 Payment for Reactive Power. CAISO is required to pay the Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from an Electric Generating Unit when the CAISO requests the Interconnection Customer to operate its Electric Generating Unit outside the range specified in Article 9.6.1, provided that if the CAISO pays other generators for reactive power service within the specified range, it must also pay the Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the CAISO and Interconnection Customer have otherwise agreed.
- 9.7 Outages and Interruptions.
 - **9.7.1** Outages.
 - **9.7.1.1 Outage Authority and Coordination.** Each Party may in accordance with Good Utility Practice in coordination with the other Parties remove from service any of

its respective Interconnection Facilities or Network Upgrades that may impact another Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to all Parties. In all circumstances any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Parties of such removal.

- 9.7.1.2 Outage Schedules. The CAISO shall post scheduled outages of CAISO Controlled Grid facilities in accordance with the provisions of the CAISO Tariff. The Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to the CAISO in accordance with the CAISO Tariff. The Interconnection Customer shall update its planned maintenance schedules in accordance with the CAISO Tariff. The CAISO may request the Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the CAISO Controlled Grid in accordance with the CAISO Tariff. Such planned maintenance schedules and updates and changes to such schedules shall be provided by the Interconnection Customer to the Participating TO concurrently with their submittal to the CAISO. The CAISO shall compensate the Interconnection Customer for any additional direct costs that the Interconnection Customer incurs as a result of having to reschedule maintenance in accordance with the CAISO Tariff. The Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, the Interconnection Customer had modified its schedule of maintenance activities.
- 9.7.1.3 Outage Restoration. If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects another Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Parties, to the extent such information is known, information on the nature of the Emergency Condition, if the outage is caused by an Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage, if requested by a Party, which may be provided by e-mail or facsimile.
- 9.7.2 Interruption of Service. If required by Good Utility Practice to do so, the CAISO or the Participating TO may require the Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect the CAISO's or the Participating TO's ability to perform such activities as are necessary to safely and reliably operate and maintain the Participating TO's electric system or the CAISO Controlled Grid. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:
 - **9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;
 - 9.7.2.2 Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the CAISO Controlled Grid, subject to any conditions specified in this LGIA;

- 9.7.2.3 When the interruption or reduction must be made under circumstances which do not allow for advance notice, the CAISO or Participating TO, as applicable, shall notify the Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification, if requested by the Interconnection Customer, as soon as practicable;
- 9.7.2.4 Except during the existence of an Emergency Condition, the CAISO or Participating TO shall notify the Interconnection Customer in advance regarding the timing of such interruption or reduction and further notify the Interconnection Customer of the expected duration. The CAISO or Participating TO shall coordinate with the Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to the Interconnection Customer, the CAISO, and the Participating TO;
- 9.7.2.5 The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, the Participating TO's Transmission System, and the CAISO Controlled Grid to their normal operating state, consistent with system conditions and Good Utility Practice.
- 9.7.3 Under-Frequency and Over Frequency Conditions. The CAISO Controlled Grid is designed to automatically activate a load-shed program as required by Applicable Reliability Standards and the Applicable Reliability Council in the event of an underfrequency system disturbance. The Interconnection Customer shall implement underfrequency and over-frequency protection set points for the Large Generating Facility as required by Applicable Reliability Standards and the Applicable Reliability Council to ensure "ride through" capability. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with the Participating TO and CAISO in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the CAISO Controlled Grid during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice. . Asynchronous Generating Facilities shall be subject to frequency ride through capability requirements in accordance with Appendix H to this LGIA.

9.7.4 System Protection and Other Control Requirements.

- 9.7.4.1 System Protection Facilities. The Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Participating TO shall install at the Interconnection Customer's expense any System Protection Facilities that may be required on the Participating TO's Interconnection Facilities or the Participating TO's Transmission System as a result of the interconnection of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities.
- 9.7.4.2 The Participating TO's and Interconnection Customer's protection facilities shall be designed and coordinated with other systems in accordance with Applicable Reliability Standards, Applicable Reliability Council criteria, and Good Utility Practice.

- **9.7.4.3** The Participating TO and Interconnection Customer shall each be responsible for protection of its facilities consistent with Good Utility Practice.
- 9.7.4.4 The Participating TO's and Interconnection Customer's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of the Interconnection Customer's Electric Generating Units.
- 9.7.4.5 The Participating TO and Interconnection Customer will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice and, if applicable, the requirements of the Participating TO's Interconnection Handbook.
- 9.7.4.6 Prior to the in-service date, and again prior to the Commercial Operation Date, the Participating TO and Interconnection Customer or their agents shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice, the standards and procedures of the Participating TO, including, if applicable, the requirements of the Participating TO's Interconnection Handbook, and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.
- 9.7.5 Requirements for Protection. In compliance with Good Utility Practice and, if applicable, the requirements of the Participating TO's Interconnection Handbook, the Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Participating TO's Transmission System not otherwise isolated by the Participating TO's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Participating TO's Transmission System. Such protective equipment shall include, without limitation, a disconnecting device with fault current-interrupting capability located between the Large Generating Facility and the Participating TO's Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. The Interconnection Customer shall be responsible for protection of the Large Generating Facility and the Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. The Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and the Interconnection Customer's other equipment if conditions on the CAISO Controlled Grid could adversely affect the Large Generating Facility.
- 9.7.6 Power Quality. Neither the Participating TO's nor the Interconnection Customer's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, any applicable superseding electric industry standard, or any alternative Applicable Reliability Standard or Applicable Reliability Council standard. In the event of a conflict among ANSI Standard C84.1-1989, any applicable superseding electric industry standard, or any alternative Applicable Reliability Standard or Applicable Reliability Council standard, the alternative Applicable Reliability Standard or Applicable Reliability Council standard shall control.

- 9.8 Switching and Tagging Rules. Each Party shall provide the other Parties a copy of its switching and tagging rules that are applicable to the other Parties' activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.
- 9.9 Use of Interconnection Facilities by Third Parties.
 - 9.9.1 Purpose of Interconnection Facilities. Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Participating TO's Transmission System and shall be used for no other purpose.
 - 9.9.2 Third Party Users. If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Participating TO's Interconnection Facilities, or any part thereof, the Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by the Participating TO, all third party users, and the Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between the Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by the Participating TO, all third party users, and the Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.
- 9.10 Disturbance Analysis Data Exchange. The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or the CAISO Controlled Grid by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

Article 10. Maintenance

- **10.1 Participating TO Obligations.** The Participating TO shall maintain the Participating TO's Transmission System and the Participating TO's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- **10.2** Interconnection Customer Obligations. The Interconnection Customer shall maintain the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- **10.3 Coordination.** The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.
- **10.4 Secondary Systems.** The Participating TO and Interconnection Customer shall cooperate with the other Parties in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the

operation of a Party's facilities and equipment which may reasonably be expected to impact the other Parties. Each Party shall provide advance notice to the other Parties before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

10.5 Operating and Maintenance Expenses. Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, the Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing the Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of the Participating TO's Interconnection Facilities.

Article 11. Performance Obligation

- 11.1 Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A at its sole expense.
- 11.2 Participating TO's Interconnection Facilities. The Participating TO shall design, procure, construct, install, own and/or control the Participating TO's Interconnection Facilities described in Appendix A at the sole expense of the Interconnection Customer. Unless the Participating TO elects to fund the capital for the Participating TO's Interconnection Facilities, they shall be solely funded by the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades. The Participating TO shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, except for Stand Alone Network Upgrades, which will be constructed, and if agreed to by the Parties owned by the Interconnection Customer, and Merchant Network Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Network Upgrades shall be funded by the Interconnection Customer, which for Interconnection Customers processed under Section 6 of the GIDAP (in queue clusters) shall be in an amount determined pursuant to the methodology set forth in Section 6.3 of the GIDAP. This specific amount is set forth in Appendix G to this LGIA. For costs associated with Area Delivery Network Upgrades, any amounts set forth in Appendix G will be advisory estimates only, and will not operate to establishing any cap or maximum cost responsibility limit on the cost responsibility of the Interconnection Customer for Area Delivery Network Upgrades.
- 11.4 Transmission Credits. No later than thirty (30) Calendar Days prior to the Commercial Operation Date, the Interconnection Customer may make a one-time election by written notice to the CAISO and the Participating TO to receive Congestion Revenue Rights as defined in and as available under the CAISO Tariff at the time of the election in accordance with the CAISO Tariff, in lieu of a repayment of the cost of Network Upgrades in accordance with Article 11.4.1.
 - 11.4.1 Repayment of Amounts Advanced for Network Upgrades.
 - 11.4.1.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

Upon the Commercial Operation Date of a Generating Facility that is not a Phased Generating Facility, and the in-service date of the corresponding Network Upgrades, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades as follows:

(a) For Reliability Network Upgrades, the Interconnection Customer shall be entitled to a repayment of the Interconnection Customer's assigned cost responsibility for

Reliability Network Upgrades as set forth in Appendix G, up to a maximum of \$60,000 per MW of generating capacity. For purposes of this determination, generating capacity will be based on the capacity of the Interconnection Customer's Generating Facility at the time it achieves Commercial Operation. To the extent that such repayment does not cover all of the costs of Interconnection Customer's Reliability Network Upgrades, the Interconnection Customer shall receive CRRs for that portion of its Reliability Network Upgrades that are not covered by cash repayment.

- (b) For Local Delivery Network Upgrades:
 - i. If the Interconnection Customer is an Option (B) Interconnection Customer and has been allocated and continues to be eligible to receive TP Deliverability pursuant to the GIDAP, the Interconnection Customer shall be entitled to repayment of a portion of the total amount paid to the Participating TO for the costs of Local Delivery Network Upgrades for which it is responsible, as set forth in Appendix G, The repayment amount shall be determined by dividing the amount of TP deliverability received by the amount of deliverability requested by the Interconnection Customer, and multiplying that percentage by the total amount paid to the Participating TO by the Interconnection Customer for Local Delivery Network Upgrades
 - ii. If the Generating Facility is an Option (B) Generating Facility and has not been allocated any TP Deliverability, the Interconnection Customer shall not be entitled to repayment for the costs of Local Delivery Network Upgrades.
 - iii. If the Generating Facility is an Option (A) Generating Facility, , the Interconnection Customer shall be entitled to a repayment equal to the total amount paid to the Participating TO for the costs of Local Delivery Network Upgrades for which it is responsible, as set forth in Appendix G.
- (c) For Area Delivery Network Upgrades, the Interconnection Customer shall not be entitled to repayment for the costs of Area Delivery Network Upgrades.
- (d) If an Interconnection Customer having a Option (B) Generating Facility, and is eligible, to construct and own Network Upgrades pursuant to the Merchant Option set forth in Article 5.15 of this LGIA, then the Interconnection Customer shall not be entitled to any repayment pursuant to this LGIA.

Such repayment amount shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer pursuant to Article 5.17.8 or otherwise, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this LGIA terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment equal to the Interconnection Customer's contribution to the cost of Network Upgrades for that completed phase for which the Interconnection Customer is responsible, as set forth in Appendix G, subject to the limitations specified in Article 11.4.1.1, if all of the following conditions are satisfied:

- (a) The Generating Facility is capable of being constructed in phases;
- (b) The Generating Facility is specified in the LGIA as being constructed in phases;
- (c) The completed phase corresponds to one of the phases specified in the LGIA;
- (d) The phase has achieved Commercial Operation and the Interconnection Customer has tendered notice of the same pursuant to this LGIA;
- (e) All parties to the LGIA have confirmed that the completed phase meets the requirements set forth in this LGIA and any other operating, metering, and interconnection requirements to permit generation output of the entire capacity of the completed phase as specified in this LGIA;
- (f) The Network Upgrades necessary for the completed phase to meet the desired level of deliverability are in service; and
- (g) The Interconnection Customer has posted one hundred (100) percent of the Interconnection Financial Security required for the Network Upgrades for all the phases of the Generating Facility (or if less than one hundred (100) percent has been posted, then all required Financial Security Instruments to the date of commencement of repayment).

Upon satisfaction of these conditions (a) through (g), the Interconnection Customer shall be entitled to receive a partial repayment of its financed cost responsibility, to the extent that it is otherwise eligible for such repayment per Article 11.4.1.1, in an amount equal to the percentage of the Generating Facility declared to be in Commercial Operation multiplied by the cost of the Network Upgrades associated with the completed phase. The Interconnection Customer shall be entitled to repayment in this manner for each completed phase until the entire Generating Facility is completed.

A reduction in the electrical output (MW capacity) of the Generating Facility pursuant to LGIA Article 5.19.4 shall not diminish the Interconnection Customer's right to repayment pursuant to this LGIA Article 11.4.1. If the LGIA includes a partial termination provision and the partial termination right has been exercised with regard to a phase that has not been built, then the Interconnection Customer's eligibility for repayment under this Article as to the remaining phases shall not be diminished. If the Interconnection Customer completes one or more phases and then breaches the LGIA, the Participating TO and the CAISO shall be entitled to offset any losses or damages resulting from the breach against any repayments made for Network Upgrades related to the completed phases.

Any repayment amount for completion of a phase shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer pursuant to Article 5.17.8 or otherwise, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the date b which the requirements of items (a) through (g) have been

fulfilled; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this LGIA terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

11.4.1.3. Interest Payments and Assignment Rights

Any phased or non-phased repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. Interest shall continue to accrue on the repayment obligation so long as this LGIA is in effect. The Interconnection Customer may assign such repayment rights to any person.

11.4.1.4 Failure to Achieve Commercial Operation

If the Large Generating Facility fails to achieve Commercial Operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, the Participating TO shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying and demonstrating to the Participating TO the appropriate entity to which reimbursement must be made in order to implement the intent of this reimbursement obligation.

- 11.4.2 Special Provisions for Affected Systems. The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid, as applicable, in accordance with the GIDAP. Such agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid as well as the repayment by the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid. In no event shall the Participating TO be responsible for the repayment for any facilities that are not part of the Participating TO's Transmission System. In the event the Participating TO is a joint owner with an Affected System or with any other co-owner of a facility affected by the Large Generating Facility, the Participating TO's obligation to reimburse the Interconnection Customer for payments made to address the impacts of the Large Generating Facility on the system shall not exceed the proportionate amount of the cost of any upgrades attributable to the proportion of the jointly-owned facility owned by the Participating TO.
- 11.4.3 Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, Congestion Revenue Rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements, merchant transmission Congestion Revenue Rights in accordance with Section 36.11 of the CAISO Tariff, or transmission credits for transmission service that is not associated with the Large Generating Facility.
- **11.5** Provision of Interconnection Financial Security. The Interconnection Customer is obligated to provide all necessary Interconnection Financial Security required under Section 11 of the GIDAP in a manner acceptable under Section 11 of the GIDAP. Failure by the Interconnection Customer

to timely satisfy the GIDAP's requirements for the provision of Interconnection Financial Security shall be deemed a breach of this Agreement and a condition of Default of this Agreement.

- 11.5.1 Notwithstanding any other provision of this Agreement for notice of Default and opportunity to cure such Default, the CAISO or the Participating TO shall provide the Interconnection Customer with written notice of any Default due to timely failure to post Financial Security, and the Interconnection Customer shall have five (5) Business Days from the date of such notice to cure such Default by posting the required Financial Security. If the Interconnection Customer fails to cure the Default, then this Agreement shall be deemed terminated.
- 11.6 Interconnection Customer Compensation. If the CAISO requests or directs the Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power) or 13.5.1 of this LGIA, the CAISO shall compensate the Interconnection Customer in accordance with the CAISO Tariff.
 - 11.6.1 Interconnection Customer Compensation for Actions During Emergency Condition. The CAISO shall compensate the Interconnection Customer in accordance with the CAISO Tariff for its provision of real and reactive power and other Emergency Condition services that the Interconnection Customer provides to support the CAISO Controlled Grid during an Emergency Condition in accordance with Article 11.6.

Article 12. Invoice

- 12.1 General. The Participating TO shall submit to the Interconnection Customer, on a monthly basis, invoices of amounts due pursuant to this LGIA for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party. Notwithstanding the foregoing, any invoices between the CAISO and another Party shall be submitted and paid in accordance with the CAISO Tariff.
- 12.2 Final Invoice. As soon as reasonably practicable, but within twelve months after completion of the construction of the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, the Participating TO shall provide an invoice of the final cost of the construction of the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, and shall set forth such costs in sufficient detail to enable the Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. With respect to costs associated with the Participating TO's Interconnection Facilities and Distribution Upgrades, the Participating TO shall refund to the Interconnection Customer any amount by which the actual payment by the Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice; or, in the event the actual costs of construction exceed the Interconnection Customer's actual payment for estimated costs, then the Interconnection Customer shall pay to the Participating TO any amount by which the actual costs of construction exceed the actual payment by the Interconnection Customer for estimated costs within thirty (30) Calendar Days of the issuance of such final construction invoice. With respect to costs associated with Network Upgrades, the Participating TO shall refund to the Interconnection Customer any amount by which the actual payment by the Interconnection Customer for estimated costs exceeds the actual costs of construction multiplied by the Interconnection Customer's percentage share of those costs, as set forth in Appendix G to this LGIA within thirty (30) Calendar Days of the issuance of such final construction invoice. In the event the actual costs of construction multiplied by the Interconnection Customer's percentage share of those

- costs exceed the Interconnection Customer's actual payment for estimated costs, then the Participating TO shall recover such difference through its transmission service rates.
- 12.3 Payment. Invoices shall be rendered to the Interconnection Customer at the address specified in Appendix F. The Interconnection Customer shall pay, or Participating TO shall refund, the amounts due within thirty (30) Calendar Days of the Interconnection Customer's receipt of the invoice. All payments shall be made in immediately available funds payable to the Interconnection Customer or Participating TO, or by wire transfer to a bank named and account designated by the invoicing Interconnection Customer or Participating TO. Payment of invoices by any Party will not constitute a waiver of any rights or claims any Party may have under this LGIA.
- **12.4 Disputes.** In the event of a billing dispute between the Interconnection Customer and the Participating TO, the Participating TO and the CAISO shall continue to provide Interconnection Service under this LGIA as long as the Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to the Participating TO or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the Interconnection Customer fails to meet these two requirements for continuation of service, then the Participating TO may provide notice to the Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accordance with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Notwithstanding the foregoing, any billing dispute between the CAISO and another Party shall be resolved in accordance with the provisions of Article 27 of this LGIA.

Article 13. Emergencies

13.1 [Reserved]

- **13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of the CAISO, NERC, the Applicable Reliability Council, Applicable Reliability Standards, Applicable Laws and Regulations, and any emergency procedures set forth in this LGIA.
- 13.3 Notice. The Participating TO or the CAISO shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects the Participating TO's Interconnection Facilities or Distribution System or the CAISO Controlled Grid, respectively, that may reasonably be expected to affect the Interconnection Customer's operation of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall notify the Participating TO and the CAISO promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the CAISO Controlled Grid or the Participating TO's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Interconnection Customer's or Participating TO's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice, if requested by a Party, which may be provided by electronic mail or facsimile, or in the case of the CAISO may be publicly posted on the CAISO's internet web site.
- 13.4 Immediate Action. Unless, in the Interconnection Customer's reasonable judgment, immediate action is required, the Interconnection Customer shall obtain the consent of the CAISO and the Participating TO, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition declared by the Participating TO or CAISO or in response to any other emergency condition.

13.5 CAISO and Participating TO Authority.

13.5.1 General. The CAISO and Participating TO may take whatever actions or inactions, including issuance of dispatch instructions, with regard to the CAISO Controlled Grid or the Participating TO's Interconnection Facilities or Distribution System they deem necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the CAISO Controlled Grid or the Participating TO's Interconnection Facilities or Distribution System, and (iii) limit or prevent damage, and (iv) expedite restoration of service.

The Participating TO and the CAISO shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Participating TO or the CAISO may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing the Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of the CAISO's and Participating TO's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

- 13.5.2 Reduction and Disconnection. The Participating TO or the CAISO may reduce Interconnection Service or disconnect the Large Generating Facility or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of the CAISO pursuant to the CAISO Tariff. When the CAISO or Participating TO can schedule the reduction or disconnection in advance, the CAISO or Participating TO shall notify the Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. The CAISO or Participating TO shall coordinate with the Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the CAISO and Participating TO. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the CAISO Controlled Grid to their normal operating state as soon as practicable consistent with Good Utility Practice.
- 13.6 Interconnection Customer Authority. Consistent with Good Utility Practice, this LGIA, and the CAISO Tariff, the Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the CAISO Controlled Grid and the Participating TO's Interconnection Facilities. The CAISO and Participating TO shall use Reasonable Efforts to assist Interconnection Customer in such actions.
- **13.7 Limited Liability.** Except as otherwise provided in Article 11.6.1 of this LGIA, no Party shall be liable to any other Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Laws

14.1 Regulatory Requirements. Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require the Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, or the Energy Policy Act of 2005.

14.2 Governing Law.

- **14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- **14.2.2** This LGIA is subject to all Applicable Laws and Regulations.
- **14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices

15.1 General. Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by a Party to another and any instrument required or permitted to be tendered or delivered by a Party in writing to another shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

A Party must update the information in Appendix F as information changes. A Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change. Such changes shall not constitute an amendment to this LGIA.

- **15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.
- **15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to another and not required by this LGIA to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out in Appendix F.
- **15.4 Operations and Maintenance Notice.** Each Party shall notify the other Parties in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

- **16.1.1** Economic hardship is not considered a Force Majeure event.
- **16.1.2** No Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any

obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default.

- 17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act or omission of the other Party. Upon a Breach, the affected non-Breaching Party(ies) shall give written notice of such Breach to the Breaching Party. Except as provided in Articles 11.5.1 and 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.
- 17.1.2 Right to Terminate. If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the affected non-Breaching Party(ies) shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not such Party(ies) terminates this LGIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this LGIA.

Article 18. Indemnity, Consequential Damages, and Insurance

- **18.1 Indemnity.** Each Party shall at all times indemnify, defend, and hold the other Parties harmless from, any and all Losses arising out of or resulting from another Party's action or inactions of its obligations under this LGIA on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.
 - **18.1.1 Indemnified Party.** If an Indemnified Party is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
 - **18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 18, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.
 - **18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the

Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed.

- 18.2 Consequential Damages. Other than the liquidated damages heretofore described in Article 5.3, in no event shall any Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.
- 18.3 Insurance. As indicated below, the designated Party shall, at its own expense, maintain in force throughout the periods noted in this LGIA, and until released by the other Parties, the following minimum insurance coverages, with insurers rated no less than A- (with a minimum size rating of VII) by Bests' Insurance Guide and Key Ratings and authorized to do business in the state where the Point of Interconnection is located, except in the case of any insurance required to be carried by the CAISO, the State of California:
 - 18.3.1 Employer's Liability and Workers' Compensation Insurance. The Participating TO and the Interconnection Customer shall maintain such coverage from the commencement of any Construction Activities providing statutory benefits for workers compensation coverage and coverage amounts of no less than One Million Dollars (\$1,000,000) for employer's liability in accordance with the laws and regulations of the state in which the Point of Interconnection is located. The Participating TO shall provide the Interconnection Customer with evidence of such insurance within thirty (30) days of any request by the Interconnection Customer. The Interconnection Customer shall provide evidence of such insurance thirty (30) days prior to entry by any employee or contractor or other person acting on the Interconnection Customer's behalf onto any construction site to perform any work related to the Interconnection Facilities or Generating Facility.

- 18.3.2 Commercial General Liability Insurance. The Participating TO and the Interconnection Customer shall maintain commercial general liability insurance commencing within thirty (30) days of the effective date of this LGIA, including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification), products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage. If the activities of the Interconnection Customer are being conducted through the actions of an Affiliate, then the Interconnection Customer may satisfy the insurance requirements of this Section 18.3.2 by providing evidence of insurance coverage carried by such Affiliate and showing the Participating TO as an additional insured, together with the Interconnection Customer's written representation to the Participating TO and the CAISO that the insured Affiliate is conducting all of the necessary preconstruction work. Within thirty (30) days prior to the entry of any person on behalf of the Interconnection Customer onto any construction site to perform work related to the Interconnection Facilities or Generating Facility, the Interconnection Customer shall replace any evidence of Affiliate Insurance with evidence of such insurance carried by the Interconnection Customer, naming the Participating TO as additional insured.
- 18.3.3 Business Automobile Liability Insurance. Prior to the entry of any such vehicles on any construction site in connection with work done by or on behalf of the Interconnection Customer, the Interconnection Customer shall provide evidence of coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage. Upon the request of the Participating TO, the Interconnection Customer shall name the Participating TO as an additional insured on any such policies.
- 18.3.4 Excess Public Liability Insurance. Commencing at the time of entry of any person on its behalf upon any construction site for the Network Upgrades, Interconnection Facilities, or Generating Facility, the Participating TO and the Interconnection Customer shall maintain excess public liability insurance over and above the Employer's Liability Commercial General Liability and Business Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate. Such insurance carried by the Participating TO shall name the Interconnection Customer as an additional insured, and such insurance carried by the Interconnection Customer shall name the Participating TO as an additional insured.
- 18.3.5 The Commercial General Liability Insurance, Business Automobile Insurance and Excess Public Liability Insurance policies shall name the other Parties identified in the sections above, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group of cancellation in coverage or condition. If any Party can reasonably demonstrate that coverage policies containing provisions for insurer waiver of subrogation rights, or advance written notice are not commercially available, then the Parties shall meet and confer and mutually determine to (i) establish replacement or

equivalent terms in lieu of subrogation or notice or (ii) waive the requirements that coverage(s) include such subrogation provision or require advance written notice from such insurers.

- 18.3.6 The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.
- 18.3.7 The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8 The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9 Within ten (10) Calendar Days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- **18.3.10** Notwithstanding the foregoing, each Party may self-insure
 - a) to meet the insurance requirements of Article 18.3.1, to the extent that it maintains a self-insurance program that is a qualified self insurer within the state in which the Point of Interconnection is located, under the laws and regulations of such state; and
 - b) to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior unsecured debt or issuer rating is BBB-, or better, as rated by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior unsecured debt rating and issuer rating are both unrated by Standard & Poor's or are both rated at less than BBB- by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9.
 - c) In the event that a Party is permitted to self-insure pursuant to this Article 18.3.10, it shall notify the other Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.
- **18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

Article 19. Assignment

19.1 Assignment. This LGIA may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this LGIA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA: and provided further that the Interconnection Customer shall have the right to assign this LGIA, without the consent of the CAISO or Participating TO, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will promptly notify the CAISO and Participating TO of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the CAISO and Participating TO of the date and particulars of any such exercise of assignment right(s), including providing the CAISO and Participating TO with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

20.1 Severability. If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Participating TO or CAISO) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of the provisions of Article 5.1.2 or 5.1.4 shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

Article 21. Comparability

21.1 Comparability. The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

Article 22. Confidentiality

22.1 Confidentiality. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the other Parties prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Parties receiving the information that the information is confidential.

If requested by any Party, the other Parties shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

22.1.1 Term. During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22,

each Party shall hold in confidence and shall not disclose to any person Confidential Information.

- 22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of this LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.
- 22.1.3 Release of Confidential Information. No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by the Standards of Conduct requirements set forth in Part 358 of FERC's Regulations, 18 C.F.R. 358), subcontractors, or to parties who may be or considering providing financing to or equity participation with the Interconnection Customer, or to potential purchasers or assignees of the Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.
- **22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Parties. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- **22.1.5 No Warranties.** The mere fact that a Party has provided Confidential Information does not constitute a warranty or representation as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.
- **22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under this LGIA or its regulatory requirements.
- 22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled

- to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.
- **22.1.8 Termination of Agreement.** Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from another Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.
- 22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.
- 22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Parties to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.
- 22.1.11 Subject to the exception in Article 22.1.10, Confidential Information shall not be disclosed by the other Parties to any person not employed or retained by the other Parties, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Parties, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Balancing Authority including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Parties in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other

Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

Article 23. Environmental Releases

23.1 Each Party shall notify the other Parties, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Parties. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

Article 24. Information Requirements

- **24.1 Information Acquisition.** The Participating TO and the Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Participating TO. The initial information submission by the Participating TO shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include the Participating TO's Transmission System information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Participating TO and the Interconnection Customer. On a monthly basis the Participating TO shall provide the Interconnection Customer and the CAISO a status report on the construction and installation of the Participating TO's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer. The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. The Interconnection Customer shall submit a completed copy of the Electric Generating Unit data requirements contained in Appendix 1 to the GIDAP. It shall also include any additional information provided to the Participating TO and the CAISO for the Interconnection Studies. Information in this submission shall be the most current Electric Generating Unit design or expected performance data. Information submitted for stability models shall be compatible with the Participating TO and CAISO standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Interconnection Customer's data is materially different from what was originally provided to the Participating TO and the CAISO for the Interconnection Studies, then the Participating TO and the CAISO will conduct appropriate studies pursuant to the GIDAP to determine the impact on the Participating TO's Transmission System and affected portions of the CAISO Controlled Grid based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed and all other requirements of this LGIA are satisfied.

24.4 Information Supplementation. Prior to the Trial Operation date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Electric Generating Unit information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Electric Generating Unit as required by Good

Utility Practice such as an open circuit "step voltage" test on the Electric Generating Unit to verify proper operation of the Electric Generating Unit's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Electric Generating Unit at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent (5 percent) change in Electric Generating Unit terminal voltage initiated by a change in the voltage regulators reference voltage. The Interconnection Customer shall provide validated test recordings showing the responses of Electric Generating Unit terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Electric Generating Unit's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Electric Generating Unit terminal or field voltages is provided. Electric Generating Unit testing shall be conducted and results provided to the Participating TO and the CAISO for each individual Electric Generating Unit in a station.

Subsequent to the Commercial Operation Date, the Interconnection Customer shall provide the Participating TO and the CAISO any information changes due to equipment replacement, repair, or adjustment. The Participating TO shall provide the Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Participating TO-owned substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information pursuant to Article 5.19.

Article 25. Information Access and Audit Rights

- 25.1 Information Access. Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA. Nothing in this Article 25 shall obligate the CAISO to make available to a Party any third party information in its possession or control if making such third party information available would violate a CAISO Tariff restriction on the use or disclosure of such third party information.
- 25.2 Reporting of Non-Force Majeure Events. Each Party (the "notifying Party") shall notify the other Parties when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.
- **25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this LGIA, the Parties' audit rights shall include audits of a Party's costs pertaining to such Party's performance or satisfaction of obligations owed to the other Party under this LGIA, calculation of invoiced amounts, the CAISO's efforts to allocate responsibility for the provision of reactive support to the CAISO Controlled Grid, the CAISO's efforts to allocate responsibility for interruption or reduction of generation on the CAISO Controlled Grid, and each such Party's actions in an Emergency Condition.
 - 25.3.1 The Interconnection Customer and the Participating TO shall each have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either such Party's performance or either such Party's satisfaction of obligations owed to the other Party

under this LGIA. Subject to Article 25.3.2, any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each such Party's performance and satisfaction of obligations under this LGIA. Each such Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.3.2 Notwithstanding anything to the contrary in Article 25.3, each Party's rights to audit the CAISO's accounts and records shall be as set forth in Section 22.1 of the CAISO Tariff.

25.4 Audit Rights Periods.

- 25.4.1 Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades constructed by the Participating TO shall be subject to audit for a period of twenty-four months following the Participating TO's issuance of a final invoice in accordance with Article 12.2. Accounts and records related to the design, engineering, procurement, and construction of Participating TO's Interconnection Facilities and/or Stand Alone Network Upgrades constructed by the Interconnection Customer shall be subject to audit and verification by the Participating TO and the CAISO for a period of twenty-four months following the Interconnection Customer's issuance of a final invoice in accordance with Article 5.2(8).
- 25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to a Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought; provided that each Party's rights to audit the CAISO's accounts and records shall be as set forth in Section 22.1 of the CAISO Tariff.
- **25.5 Audit Results.** If an audit by the Interconnection Customer or the Participating TO determines that an overpayment or an underpayment has occurred with respect to the other Party, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which supports such determination. The Party that is owed payment shall render an invoice to the other Party and such invoice shall be paid pursuant to Article 12 hereof.
 - **25.5.1** Notwithstanding anything to the contrary in Article 25.5, the Interconnection Customer's and Participating TO's rights to audit the CAISO's accounts and records shall be as set forth in Section 22.1 of the CAISO Tariff, and the CAISO's process for remedying an overpayment or underpayment shall be as set forth in the CAISO Tariff.

Article 26. Subcontractors

- **26.1 General.** Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- **Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no

subcontract had been made; provided, however, that in no event shall the CAISO or Participating TO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

No Limitation by Insurance. The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27. Disputes

All disputes arising out of or in connection with this LGIA whereby relief is sought by or from the CAISO shall be settled in accordance with the provisions of Article 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Article 13 of the CAISO Tariff shall be read as references to this LGIA. Disputes arising out of or in connection with this LGIA not subject to provisions of Article 13 of the CAISO Tariff shall be resolved as follows:

- 27.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.
- 27.2 External Arbitration Procedures. Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.
- 27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator(s) must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties and Covenants

- **28.1 General.** Each Party makes the following representations, warranties and covenants:
 - **28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.
 - **28.1.2 Authority.** Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).
 - **No Conflict.** The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.
 - **28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

Article 29. [Reserved]

Article 30. Miscellaneous

- **30.1 Binding Effect.** This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- **30.2 Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.
- 30.3 Rules of Interpretation. This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in

accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the GIDAP or such Appendix to the GIDAP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- **30.4 Entire Agreement.** This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between or among the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this LGIA.
- **30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- **30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO. Any waiver of this LGIA shall, if requested, be provided in writing.

- **30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.
- **30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- **30.9** Amendment. The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.
- **30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.
- **30.11** Reservation of Rights. The CAISO and Participating TO shall each have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles and Appendices of this LGIA and with respect to any rates, terms and

conditions, charges, classifications of service, rule or regulation covered by these Articles and Appendices:

Recitals, 1, 2.1, 2.2, 2.3, 2.4, 2.6, 3.1, 3.3, 4.1, 4.2, 4.3, 4.4, 5 preamble, 5.4, 5.7, 5.8, 5.9, 5.12, 5.13, 5.18, 5.19.1, 7.1, 7.2, 8, 9.1, 9.2, 9.3, 9.5, 9.6, 9.7, 9.8, 9.10, 10.3, 11.4, 12.1, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.3, 24.4, 25.1, 25.2, 25.3 (excluding subparts), 25.4.2, 26, 28, 29, 30, Appendix D, Appendix F, Appendix G, and any other Article not reserved exclusively to the Participating TO or the CAISO below.

The Participating TO shall have the exclusive right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles and Appendices of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles and Appendices:

2.5, 5.1, 5.2, 5.3, 5.5, 5.6, 5.10, 5.11, 5.14, 5.15, 5.16, 5.17, 5.19 (excluding 5.19.1), 6, 7.3, 9.4, 9.9, 10.1, 10.2, 10.4, 10.5, 11.1, 11.2, 11.3, 11.5, 12.2, 12.3, 12.4, 24.1, 24.2, 25.3.1, 25.4.1, 25.5 (excluding 25.5.1), 27 (excluding preamble), Appendix A, Appendix B, Appendix C, and Appendix E.

The CAISO shall have the exclusive right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles:

3.2, 4.5, 11.6, 25.3.2, 25.5.1, and 27 preamble.

The Interconnection Customer, the CAISO, and the Participating TO shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

- **30.12 No Partnership.** This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- **30.13 Joint and Several Obligations.** Except as otherwise provided in this LGIA, the obligations of the CAISO, the Participating TO, and the Interconnection Customer are several, and are neither joint nor joint and several.

IN WITNESS WHEREOF, the Parties have executed this LGIA in multiple originals, each of which shall constitute and be an original effective agreement among the Parties.

[Insert	name of Interconnection Customer]	
Ву:		
Title:		
Date:		
[Insert name of Participating TO]		
Ву:		
California Independent System Operator Corporation		
Ву:		
Title:		
Date:		

Appendices to LGIA

Appendix A	Interconnection Facilities, Network Upgrades and Distribution Upgrades
Appendix B	Milestones
Appendix C	Interconnection Details
Appendix D	Security Arrangements Details
Appendix E	Commercial Operation Date
Appendix F	Addresses for Delivery of Notices and Billings
Appendix G	Interconnection Customer's Share of Costs of Network Upgrades for Applicable Project Group

Appendix H Interconnection Requirements for an Asynchronous Generating Facility

Appendix A

Interconnection Facilities, Network Upgrades and Distribution Upgrades

(a) [insert Interconnection Customer's Interconnection Facilities]:		
(b) [insert Participating TO's Interconnection Facilities]:		
2. Network Upgrades:		
(a) [insert Stand Alone Network Upgrades]:		
(b) [insert Other Network Upgrades]:		
(i) [insert Participating TO's Reliability Network Upgrades]		
(ii) [insert Participating TO's Delivery Network Upgrades]		
3. Distribution Upgrades:		

1. Interconnection Facilities:

Appendix B

Milestones

Appendix C

Interconnection Details

Appendix D

Security Arrangements Details

Infrastructure security of CAISO Controlled Grid equipment and operations and control hardware and software is essential to ensure day-to-day CAISO Controlled Grid reliability and operational security. FERC will expect the CAISO, all Participating TOs, market participants, and Interconnection Customers interconnected to the CAISO Controlled Grid to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

The Interconnection Customer shall meet the requirements for security implemented pursuant to the CAISO Tariff, including the CAISO's standards for information security posted on the CAISO's internet web site at the following internet address: http://www.caiso.com/pubinfo/info-security/index.html.

Appendix E

Commercial Operation Date

[This Appendix E sets forth a form of letter to be provided by the Interconnection Customer to the CAISO and Participating TO to provide formal notice of the Commercial Operation of an Electric Generating Unit.]

[Date]				
[CAISO Address]				
[Participating TO Address]			
Re:Ele	ectric Generating Unit			
Dear:				
letter confirms that [Interconnection electric Generating Unit, effective as	Customer] has completed Trial Operation of Unit No This Customer] commenced Commercial Operation of Unit No at the of [Date plus one day] and that [Interconnection Customer] resonnel advance notice of its intended Commercial Operation Date or to that date.			
Thank you.				
[Signature]				
[Interconnection Customer Representative]				

Appendix F

Addresses for Delivery of Notices and Billings

Participating TO: [To be supplied.] Interconnection Customer: [To be supplied.] CAISO: [To be supplied.] Billings and Payments: Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

CAISO:

[To be supplied.]

Alternative Forms of Delivery of Notices (telephone, facsimile or e-mail):

Participating TO:		
[To be supplied.]		
Interconnection Customer:		
[To be supplied.]		
CAISO:		
[To be supplied.]		

Appendix G

Interconnection Customer's Share of Costs of Network Upgrades for Applicable Project Group
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Appendix H

INTERCONNECTION REQUIREMENTS FOR AN ASYNCHRONOUS GENERATING FACILITY

Appendix H sets forth interconnection requirements specific to all Asynchronous Generating Facilities. Existing individual generating units of an Asynchronous Generating Facility that are, or have been, interconnected to the CAISO Controlled Grid at the same location are exempt from the requirements of this Appendix H for the remaining life of the existing generating unit. Generating units that are replaced, however, shall meet the requirements of this Appendix H.

A. Technical Requirements Applicable to Asynchronous Generating Facilities

i. Low Voltage Ride-Through (LVRT) Capability

An Asynchronous Generating Facility shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the requirements below.

- 1. An Asynchronous Generating Facility shall remain online for the voltage disturbance caused by any fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, having a duration equal to the lesser of the normal three-phase fault clearing time (4-9 cycles) or one-hundred fifty (150) milliseconds, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage unless clearing the fault effectively disconnects the generator from the system. Clearing time shall be based on the maximum normal clearing time associated with any three-phase fault location that reduces the voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 2. An Asynchronous Generating Facility shall remain online for any voltage disturbance caused by a single-phase fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, with delayed clearing, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage unless clearing the fault effectively disconnects the generator from the system. Clearing time shall be based on the maximum backup clearing time associated with a single point of failure (protection or breaker failure) for any single-phase fault location that reduces any phase-to-ground or phase-to-phase voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 3. Remaining on-line shall be defined as continuous connection between the Point of Interconnection and the Asynchronous Generating Facility's units, without any mechanical isolation. Asynchronous Generating Facilities may cease to inject current into the transmission grid during a fault.
- 4. The Asynchronous Generating Facility is not required to remain on line during multi-phased faults exceeding the duration described in Section A.i.1 of this Appendix H or single-phase faults exceeding the duration described in Section A.i.2 of this Appendix H.
- 5. The requirements of this Section A.i. of this Appendix H do not apply to faults that occur between the Asynchronous Generating Facility's terminals and the high side of the step-up transformer to the high-voltage transmission system.
- 6. Asynchronous Generating Facilities may be tripped after the fault period if this action is intended as part of a special protection system.

- 7. Asynchronous Generating Facilities may meet the requirements of this Section A.i of this Appendix H through the performance of the generating units or by installing additional equipment within the Asynchronous Generating Facility, or by a combination of generating unit performance and additional equipment.
- 8. The provisions of this Section A.i of this Appendix H apply only if the voltage at the Point of Interconnection has remained within the range of 0.9 and 1.10 per-unit of nominal voltage for the preceding two seconds, excluding any sub-cycle transient deviations.

The requirements of this Section A.i in this Appendix H shall not apply to any Asynchronous Generating Facility that can demonstrate to the CAISO a binding commitment, as of July 3, 2010, to purchase inverters for thirty (30) percent or more of the Generating Facility's maximum Generating Facility Capacity that are incapable of complying with the requirements of this Section A.i in this Appendix H. The Interconnection Customer must include a statement from the inverter manufacturer confirming the inability to comply with this requirement in addition to any information requested by the CAISO to determine the applicability of this exemption.

ii. Frequency Disturbance Ride-Through Capability

An Asynchronous Generating Facility shall comply with the off nominal frequency requirements set forth in the WECC Under Frequency Load Shedding Relay Application Guide or successor requirements as they may be amended from time to time.

iii. Power Factor Design Criteria (Reactive Power)

An Asynchronous Generating Facility shall operate within a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA in order to maintain a specified voltage schedule, if the Phase II Interconnection Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two, if agreed to by the Participating TO and CAISO. The Interconnection Customer shall not disable power factor equipment while the Asynchronous Generating Facility is in operation. Asynchronous Generating Facilities shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Phase II Interconnection Study shows this to be required for system safety or reliability.

iv. Supervisory Control and Data Acquisition (SCADA) Capability

An Asynchronous Generating Facility shall provide SCADA capability to transmit data and receive instructions from the Participating TO and CAISO to protect system reliability. The Participating TO and CAISO and the Asynchronous Generating Facility Interconnection Customer shall determine what SCADA information is essential for the proposed Asynchronous Generating Facility, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability.

v. Power System Stabilizers (PSS)

Power system stabilizers are not required for Asynchronous Generating Facilities.

Attachment F - Clean SGIA Appendix FF

Generation Interconnection and Deliverability Allocation Procedures Amendment Filing

California Independent System Operator Corporation

Fifth Replacement FERC Electric Tariff

May 25, 2012

Appendix EE

Small Generator Interconnection Agreement for Interconnection Requests Processed Under the Generator Interconnection and Deliverability Allocation Procedures (Appendix DD to the CAISO Tariff)

This Small Generator Interconn		t ("Agreement") is	made and entered into	this
day of, 20 ("Participating TO"), the Califorr public benefit corporation organ	nia Independent S nized and existing	under the laws of	the State of California ("CAISO") and
hereinafter sometimes referred	to individually as	"Party" or referred	to collectively as the "P	arties."
Participating TO Information				
Participating TO:				
Attention:				
Address:				_
City:		State:	Zip:	
Phone:	Fax:			
Attention: Keith Johnson, Mana 151 Blue Ravine Road Folsom, CA 95630 Phone: 916-351-4400 Fax: E-mail: kjohnson@caiso.com		·	ts Department	
interconnection oustomer in	Officiation			
Interconnection Custom				_
Attention:				
Address:		01-1-		_
City: Phone:	Eov:	State:	Zip:	
E-mail Address:				
L IIIaii /1441633				
Interconnection Customer Appli	cation No:			

Article 1. Scope And Limitations Of Agreement

1.1 This Agreement shall be used for all Small Generating Facility Interconnection Requests submitted under the Generator Interconnection and Transmission Allocation Procedures (GIDAP) set forth in Appendix DD except for those submitted under the 10 kW Inverter Process contained in GIDAP Appendix 7. For those Interconnection Requests, GIDAP Appendix 7 contains the terms and conditions which serve as the Interconnection Agreement.

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Participating TO's Transmission System.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity in accordance with the CAISO Tariff.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between or among the Parties.

1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice. The Parties shall use the Large Generator Interconnection Agreement (CAISO Tariff Appendix CC) to interpret the responsibilities of the Parties under this Agreement.
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Participating TO shall construct, operate, and maintain its Interconnection Facilities and Upgrades in accordance with this Agreement, and with Good Utility Practice. The CAISO and the Participating TO shall cause the Participating TO's Transmission System to be operated and controlled in a safe and reliable manner and in accordance with this Agreement.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Participating TO and any Affected Systems. The Interconnection Customer shall comply with the Participating TO's Interconnection Handbook. In the event of a conflict between the terms of this Agreement and the terms of the Participating TO's Interconnection Handbook, the terms in this Agreement shall govern.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their

respective sides of the point of change of ownership. The Participating TO and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the CAISO Controlled Grid, the Participating TO's electric system, the Participating TO's personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

- 1.5.6 The Participating TO and the CAISO shall coordinate with Affected Systems to support the interconnection.
- 1.5.7 [This provision is intentionally omitted.]

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the CAISO Balancing Authority Area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the CAISO Tariff for the CAISO Controlled Grid and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power

- 1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the terminals of each generating unit at a power factor within the range of 0.95 leading to 0.90 lagging, unless the CAISO has established different requirements that apply to all similarly situated generators in the CAISO Balancing Authority Area on a comparable basis. The requirements of this paragraph shall not apply to wind generators and the requirements of Attachment 7 shall apply instead.
- 1.8.2 Payment to the Interconnection Customer for reactive power that the Small Generating Facility provides or absorbs when the CAISO requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1 will be made by the CAISO in accordance with the applicable provisions of the CAISO Tariff.
- 1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

1.10 TP Deliverability

To the extent that an Interconnection Customer is eligible for and has been allocated TP Deliverability pursuant to Section 8.9 of the GIDAP, the Interconnection Customer's right to retain

such allocated TP Deliverability shall be contingent upon satisfying the obligations set forth in Section 8.9.3 of the GIDAP.

Article 2. Inspection, Testing, Authorization, And Right Of Access

- 2.1 Equipment Testing and Inspection
 - 2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Participating TO and the CAISO of such activities no fewer than five (5) Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Participating TO and the CAISO may, at their own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Participating TO and the CAISO a written test report when such testing and inspection is completed.
 - 2.1.2 The Participating TO and the CAISO shall provide the Interconnection Customer written acknowledgment that they have received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Participating TO or the CAISO of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.
- 2.2 Authorization Required Prior to Parallel Operation
 - 2.2.1 The Participating TO and the CAISO shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Participating TO and the CAISO shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Participating TO and the CAISO shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
 - 2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Participating TO's Transmission System without prior written authorization of the Participating TO. The Participating TO will provide such authorization to the Interconnection Customer and the CAISO once the Participating TO receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access to Premises

2.3.1 Upon reasonable notice, the Participating TO and the CAISO may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required

testing), startup, and operation for a period of up to three (3) Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Participating TO and the CAISO at least five (5) Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

- 2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Participating TO and the CAISO shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.
- 2.3.3 Each Party shall be responsible for its own costs associated with following this article.

Article 3. Effective Date, Term, Termination, And Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Participating TO and the CAISO shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of _____ years from the Effective Date (term specified in individual agreements to be ten (10) years or such other longer period as the Interconnection Customer may request) and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Participating TO and the CAISO twenty (20) Business Days written notice.
- 3.3.2 Any Party may terminate this Agreement after Default pursuant to article 7.6.
- 3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the CAISO Controlled Grid. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.
- 3.3.4 The termination of this Agreement shall not relieve any Party of its liabilities and obligations, owed or continuing at the time of termination.
- 3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection of the Small Generating Facility or associated Interconnection Facilities shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 <u>Emergency Conditions</u>

"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; (2) that, in the case of the CAISO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the CAISO Controlled Grid or the electric systems of others to which the CAISO Controlled Grid is directly connected; (3) that, in the case of the Participating TO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Participating TO's Transmission System, the Participating TO's Interconnection Facilities, Distribution System, or the electric systems of others to which the Participating TO's electric system is directly connected; or (4) that, in the case of the Interconnection Customer, is imminently likely (as determined in a nondiscriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the CAISO or the Participating TO may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Participating TO or the CAISO shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall notify the Participating TO and the CAISO promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the CAISO Controlled Grid, the Participating TO's Interconnection Facilities, or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Interconnection Customer's or Participating TO's facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Participating TO or the CAISO may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the CAISO Controlled Grid when necessary for routine maintenance, construction, and repairs on the CAISO Controlled Grid or the Participating TO's electric system. The Party scheduling the interruption shall provide the Interconnection Customer with (5) five Business Days notice prior to such interruption. The Party scheduling the interruption shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

The Interconnection Customer shall update its planned maintenance schedules in accordance with the CAISO Tariff. The CAISO may request the Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the CAISO Controlled Grid in accordance with the CAISO Tariff. Such planned maintenance schedules and updates and changes to such schedules shall be provided by the

Interconnection Customer to the Participating TO concurrently with their submittal to the CAISO.

3.4.3 Forced Outages

During any forced outage, the Participating TO or the CAISO may suspend interconnection service to effect immediate repairs on the CAISO Controlled Grid or the Participating TO's electric system. The Participating TO or the CAISO shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Participating TO or the CAISO shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection. The Interconnection Customer shall notify CAISO, as soon as practicable, of all forced outages or reductions of the Small Generating Facility in accordance with the CAISO Tariff.

3.4.4 Adverse Operating Effects

The Participating TO or the CAISO shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the CAISO Controlled Grid, the Participating TO's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Participating TO or the CAISO may disconnect the Small Generating Facility. The Participating TO or the CAISO shall provide the Interconnection Customer with (5) five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 <u>Modification of the Small Generating Facility</u>

The Interconnection Customer must receive written authorization from the Participating TO and the CAISO before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the CAISO Controlled Grid or the Participating TO's electric system. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Participating TO's and the CAISO's prior written authorization, the Participating TO or the CAISO shall have the right to temporarily disconnect the Small Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, the Participating TO's electric system, and the CAISO Controlled Grid to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Costs for Interconnection Facilities & Distribution Upgrades

4.1 <u>Interconnection Facilities</u>

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Participating TO shall provide a best

estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, the CAISO, and the Participating TO.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Participating TO's Interconnection Facilities.

4.2 <u>Distribution Upgrades</u>

The Participating TO shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Participating TO and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility For Network Upgrades

5.1 Applicability

No portion of this Article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Participating TO shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement, except for Merchant Network Upgrades. If the Participating TO and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer. For costs associated with Area Delivery Network Upgrades, any cost estimates will be advisory in nature and will not be considered as definitive or as establishing a cap on the maximum cost responsibility of the Interconnection Customer for Area Delivery Network Upgrades.

5.2.1 <u>Merchant Network Upgrades</u>

If the Interconnection Customer is an Option (B) Interconnection Customer, the Interconnection Customer may elect to have a party other than the applicable Participating TO construct some or all of the LDNU and ADNU that the Interconnection Customer has the obligation to fund and that are not subject to reimbursement. Such LDNU and ADNU will be constructed and incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1 and 36.11.

5.3 Transmission Credits

No later than thirty (30) days prior to the Commercial Operation Date, the Interconnection Customer may make a one-time election by written notice to the CAISO and the Participating TO to receive Congestion Revenue Rights as defined in and as available under the CAISO Tariff at

the time of the election in accordance with the CAISO Tariff, in lieu of a repayment of the cost of Network Upgrades in accordance with Article 5.3.1.

5.3.1 Repayment of Amounts Advanced for Network Upgrades

5.3.1.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

Upon the Commercial Operation Date of a Generating Facility that is not a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades as follows:

- (a) For Reliability Network Upgrades, the Interconnection Customer shall be entitled to a repayment of the Interconnection Customer's assigned cost responsibility for Reliability Network Upgrades up to a maximum of \$60,000 per MW of generating capacity. For purposes of this determination, generating capacity will be based on the capacity of the Interconnection Customer's Generating Facility at the time it achieves Commercial Operation. To the extent that such repayment does not cover all of the costs of the Interconnection Customer's Reliability Network Upgrades, the Interconnection Customer shall receive CRRs for that portion of its Reliability Network Upgrades that are not covered by cash repayment.
- (b) For Local Delivery Network Upgrades:
 - i. If the Interconnection Customer is an Option (B) Interconnection Customer and has been allocated and continues to be eligible to receive TP Deliverability pursuant to the GIDAP, the Interconnection Customer shall be entitled to repayment of a portion of the total amount paid to the Participating TO for the cost of Local Delivery Network Upgrades for which it is responsible. The repayment amount shall be determined by dividing the amount of TP Deliverability received by the amount of deliverability requested by the Interconnection Customer, and multiplying that percentage by the total amount paid to the Participating TO by the Interconnection Customer for Local Delivery Network Upgrades.
 - ii. If the Interconnection Customer is an Option (B) Interconnection Customer and has not been allocated any TP Deliverability, the Interconnection Customer shall not be entitled to repayment for the cost of Local Delivery Network Upgrades.
 - (iii) If the Interconnection Customer is an Option (A) Interconnection Customer, the Interconnection Customer shall be entitled to a repayment equal to the total amount paid to the Participating TO for the costs of Local Delivery Network Upgrades for which it is responsible.

- (c) For Area Delivery Network Upgrades, the Interconnection Customer shall not be entitled to repayment for the costs of Area Delivery Network Upgrades.
- (d) If an Option (B) Interconnection Customer elects and is eligible to construct and own Merchant Network Upgrades as set forth in Article 5.2.1 of this SGIA, then the Interconnection Customer shall not be entitled to any repayment pursuant to this SGIA.

Such repayment amount shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this Agreement terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

5.3.1.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment equal to the amount paid to the Participating TO for the cost of Network Upgrades for that completed phase for which the Interconnection Customer is responsible, subject to the limitations specified in Article 5.3.1.1, if all of the following conditions are satisfied:

- (a) The Generating Facility is capable of being constructed in phases;
- (b) The Generating Facility is specified in the SGIA as being constructed in phases;
- (c) The completed phase corresponds to one of the phases specified in the SGIA:
- (d) The Interconnection Customer has tendered notice pursuant to the SGIA that the phase has achieved Commercial Operation;
- (e) All parties to the SGIA have agreed that the completed phase meets the requirements set forth in the SGIA and any other operating, metering, and interconnection requirements to permit generation output of the entire capacity of the completed phase as specified in the SGIA;

- (f) The Network Upgrades necessary for the completed phase to meet the desired level of deliverability are in service; and
- (g) The Interconnection Customer has posted one hundred (100) percent of the Interconnection Financial Security required for the Network Upgrades for all the phases of the Generating Facility.

Upon satisfaction of these conditions (a) through (g), the Interconnection Customer shall be entitled to receive a partial repayment of its financed cost responsibility, to the extent that it is otherwise eligible for such repayment pursuant to Article 5.3.1.1, in an amount equal to the percentage of the Generating Facility declared to be in Commercial Operation multiplied by the cost of the Network Upgrades associated with the completed phase. The Interconnection Customer shall be entitled to repayment in this manner for each completed phase until the entire Generating Facility is completed.

If the SGIA includes a partial termination provision and the partial termination right has been exercised with regard to a phase that has not been built, then the Interconnection Customer's eligibility for repayment under this Article as to the remaining phases shall not be diminished. If the Interconnection Customer completes one or more phases and then defaults on the SGIA, the Participating TO and the CAISO shall be entitled to offset any losses or damages resulting from the default against any repayments made for Network Upgrades related to the completed phases, provided that the party seeking to exercise the offset has complied with any requirements which may be required to apply the stream of payments utilized to make the repayment to the Interconnection Customer as an offset.

Any repayment amount for completion of a phase shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this Agreement terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

5.3.1.3 Interest Payments and Assignment Rights

Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. Interest shall continue to accrue on the repayment obligation so long as this Agreement is in effect. The Interconnection Customer may assign such repayment rights to any person.

5.3.1.4 Failure to Achieve Commercial Operation

5.3.2 <u>Special Provisions for Affected Systems</u>

The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid, as applicable, in accordance with the GIDAP. Such agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid. In no event shall the Participating TO be responsible for the repayment for any facilities that are not part of the Participating TO's Transmission System.

5.3.3 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

5.3.4 Compensation for Customer-Funded Upgrades Utilized by Subsequent Interconnection Customers. If the Interconnection Customer funds Network Upgrades for which it is not eligible for repayment, the Interconnection Customer will be entitled to direct compensation by any Interconnection Customers in later Queue Clusters that utilize such Network Upgrades. Such compensation will be determined based on the distribution flow factors of the Generating Facilities that will be using the Network Upgrades.

Article 6. Billing, Payment, Milestones, And Financial Security

6.1 <u>Billing and Payment Procedures and Final Accounting</u>

- 6.1.1 The Participating TO shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within thirty (30) calendar days of receipt, or as otherwise agreed to by the Parties. Notwithstanding the foregoing, any invoices between the CAISO and another Party shall be submitted and paid in accordance with the CAISO Tariff.
- 6.1.2 Within six (6) months of completing the construction and installation of the Participating TO's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Participating TO shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Participating TO for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Participating TO shall invoice the Interconnection Customer for

the amount due and the Interconnection Customer shall make payment to the Participating TO within thirty (30) calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Participating TO shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 <u>Milestones</u>

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, as defined in article 7.5.1, it shall immediately notify the other Parties of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) request appropriate amendments to Attachment 4. The Parties affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) they will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) they have reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 <u>Financial Security Arrangements for Small Generating Facilities Processed Under the Fast Track</u>
Process or Small Generating Facilities Processed under SGIP

The terms and conditions of this Article 6.3 shall apply only to Small Generating Facilities that are no larger than 5 MW that are processed under the Fast Track Process under the GIDAP, CAISO Tariff Appendix DD.

In such case, the terms of Article 6.4 below do not apply to this Agreement.

For easy reference, the Parties shall check the Box below when this Article 6.3 applies:

[] THIS ARTICLE 6.3 APPLIES

- 6.3.1 At least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Participating TO's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Participating TO, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Participating TO and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Participating TO's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Participating TO under this Agreement during its term.
- 6.3.2 If a guarantee is provided, the guarantee must be made by an entity that meets the creditworthiness requirements of the Participating TO, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

- 6.3.3 If a letter of credit or surety bond is provided, the letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Participating TO and must specify a reasonable expiration date.
- 6.4 Financial Security Arrangements for All Other Small Generating Facilities

The terms of this Article 6.4 apply to Small Generating Facilities that have been processed under either

- 1. the Cluster Study Process or
- 2. the Independent Study Track Process

of the GIDAP set forth in CAISO Tariff Appendix DD. In such case, the provisions of Article 6.3 do not apply to this Agreement.

In such case, the terms of Article 6.3 above do not apply to this Agreement.

For easy reference, the Parties shall check the Box below when this Article 6.4 applies:

[] THIS ARTICLE 6.4 APPLIES

- 6.4.1 The Interconnection Customer is obligated to provide all necessary Interconnection Financial Security required under Section 9 of the GIDAP in a manner acceptable under Section 9 of the GIDAP. Failure by the Interconnection Customer to timely satisfy the GIDAP's requirements for the provision of Interconnection Financial Security shall be deemed a breach of this Agreement and a condition of Default of this Agreement.
- 6.4.2 Notwithstanding any other provision in this Agreement for notice of Default and opportunity to cure such Default, the CAISO or the Participating TO shall provide Interconnection Customer with written notice of any Default due to timely failure to post Financial Security, and the Interconnection Customer shall have five (5) Business Days from the date of such notice to cure such Default by posting the required Financial Security. If the Interconnection Customer fails to cure the Default, then this Agreement shall be deemed terminated.

Article 7. Assignment, Liability, Indemnity, Force Majeure, And Default

7.1 Assignment

This Agreement may be assigned by any Party upon fifteen (15) Business Days prior written notice and opportunity to object by the other Parties; provided that:

- 7.1.1 Any Party may assign this Agreement without the consent of the other Parties to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Participating TO and the CAISO of any such assignment;
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Participating TO or the CAISO, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Participating TO and the CAISO of any such assignment.

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

Each Party's liability to the other Parties for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall any Party be liable to the other Parties for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

- 7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 7.2.
- 7.3.2 The Parties shall at all times indemnify, defend, and hold the other Parties harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.3.3 If an indemnified Party is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified Party may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.
- 7.3.5 Promptly after receipt by an indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

7.4 <u>Consequential Damages</u>

Other than as expressly provided for in this Agreement, no Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or

revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

- 7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing by the Party claiming Force Majeure."
- 7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Parties, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Parties informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

- 7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of another Party. Upon a Default, the affected non-defaulting Party(ies) shall give written notice of such Default to the defaulting Party. Except as provided in Article 7.6.2 and in Article 6.4.2, the defaulting Party shall have sixty (60) calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.
- 7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the affected non-defaulting Party(ies) shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not such Party(ies) terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

- 8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Participating TO or CAISO, except that the Interconnection Customer shall show proof of insurance to the Participating TO and CAISO no later than ten Business Days prior to the anticipated Commercial Operation Date. If the Interconnection Customer is of sufficient credit-worthiness, it may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.
- 8.2 The Participating TO agrees to maintain general liability insurance or self-insurance consistent with the Participating TO's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Participating TO's liabilities undertaken pursuant to this Agreement.
- 8.3 The CAISO agrees to maintain general liability insurance or self-insurance consistent with the CAISO's commercial practice. Such insurance shall not exclude coverage for the CAISO's liabilities undertaken pursuant to this Agreement.
- The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to another Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.
- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Parties and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
 - 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Parties as it employs to protect its own Confidential Information.

- 9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.
- 9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Parties to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 10. Disputes

All disputes arising out of or in connection with this Agreement whereby relief is sought by or from CAISO shall be settled in accordance with the provisions of Article 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Article 13 of the CAISO Tariff shall be read as reference to this Agreement. Disputes arising out of or in connection with this Agreement not subject to provisions of Article 13 of the CAISO Tariff shall be resolved as follows:

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at http://www.ferc.gov/legal/adr.asp.
- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- 10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

Article 11. Taxes

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other Parties to maintain the other Parties' tax status.

 Nothing in this Agreement is intended to adversely affect the Participating TO's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _______ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2 <u>Amendment</u>

The Parties may amend this Agreement by a written instrument duly executed by all of the Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

- 12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- 12.4.2 Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or Default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between or among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all transmission providers, market participants, and interconnection customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Parties, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Parties. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Parties copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

- 12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Participating TO or the CAISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The CAISO and Participating TO shall each have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following articles of this Agreement and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these articles:

Introductory Paragraph, 1.1, 1.2, 1.3, 1.4, 1.5.1, 1.5.2, 1.5.3, 1.5.4, 1.5.5, 1.5.6, 1.5.7, 1.6, 1.7, 1.8.1, 1.9, 2.1, 2.2.1, 2.3, 3, 4.1.1 (last sentence only), 5.1, 5.3, 6.2, 7, 8, 9, 11, 12, 13, Attachment 1, Attachment 4, Attachment 5, and Attachment 7.

The Participating TO shall have the exclusive right to make a unilateral filing with FERC to modify this Agreement pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following articles of this Agreement and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these articles:

2.2.2, 4.1.1 (all but the last sentence), 4.1.2, 4.2, 5.2, 6.1.1 (all but the last sentence), 6.1.2, 10 (all but preamble), Attachment 2, Attachment 3 and Attachment 6.

The CAISO shall have the exclusive right to make a unilateral filing with FERC to modify this Agreement pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following articles of this Agreement and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these articles:

1.8.2, 6.1.1 (last sentence only) and 10 (preamble only).

The Interconnection Customer, the CAISO, and the Participating TO shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise mutually agree as provided herein.

12.13 Annual Reassessment Process

If to the Interconnection Customer:

In accordance with Section 7.4 of the GIDAP, the CAISO will perform an annual reassessment in which it will update certain base case data prior to beginning the GIDAP Phase II Interconnection Studies. As set forth in Section 7.4 of the GIDAP, the CAISO may determine through this assessment that Delivery Network Upgrades already identified and included in executed Generator Interconnection Agreements should be modified in order to reflect the current circumstances of Interconnection Customers in the queue, including any withdrawals therefrom, and any additions and upgrades approved in the CAISO's most recent Transmission Planning Process cycle. To the extent that this determination modifies the scope or characteristics of, or the financial responsibility for, any Delivery Network Upgrades determined pursuant to this SGIA, such modification(s) will be reflected through an amendment to this SGIA.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

	Interconnection Customer:			
	Attention:			
	Address:			
	City:		State:	Zip:
	Phone:	_ Fax:		
If to	the Participating TO:			
	Participating TO:			
	Attention:			
	Address:			
	City:Phone:		State:	Zip:
	Phone:	_ Fax:		
If to	the CAISO:			
	California Independent Sys	tem Operator		
	Attention:			
	151 Blue Ravine Road			
	Folsom, CA 95630			
	Phone: 916-351-4400	Fax:		
3.2 <u>Billi</u>	ing and Payment			
Billi	ings and payments shall be sent	to the addresses	set out below:	
Inte	erconnection Customer:			
	Attention:			
	Address:			
	City:		State:	Zip:
Par	rticipating TO:			
	Attention:			-
	Address:			
	City:		State:	Zip:
	•			

13.3 <u>Alternative Forms of Notice</u>

13.4

Any notice or request required or permitted to be given by any Party to the other Parties and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and e-mail addresses set out below:

Interconne	ction Customer:			
Address:				
Citv:			State:	Zip:
Phone:		Fax:		
				- -
If to the Participatin	ng TO:			
Participatin	ng TO:			
Attention:				
Address:				
City:			State:	Zip:
Phone:		Fax:		
L maii add				=
If to the CAISO:				
	ndependent Sys			
Attention:_				
	Ravine Road			
Folsom, CA				
Phone: 916	6-351-4400	Fax:		
	lress:			
E-mail add Designated Operat The Parties may almay be necessary serve as the point of Interconnection Cu Interconnection: Address:	ting Representati so designate ope or convenient for of contact with re estomer's Operati ction Customer:	ive erating repres r the administ espect to oper ing Represent	entatives to conduration of this Agreations and mainte	uct the communications whement. This person will all enance of the Party's facilities.
E-mail add Designated Operat The Parties may almay be necessary serve as the point of Interconnection Cu Interconnection: Address: City:	ting Representation designate operation of contact with restormer's Operation Customer:	ive erating repres r the administ espect to oper ing Represent	entatives to conduration of this Agreations and mainte	ement. This person will all an ance of the Party's facilities
E-mail add Designated Operat The Parties may almay be necessary serve as the point of the connection Cu Interconnection Cu Interconnection: Address: City: Phone:	ting Representation so designate operation of contact with restormer's Operation Customer:	erating repres r the administ espect to oper ing Represent	entatives to conduration of this Agreations and mainte	ement. This person will all an ance of the Party's facilities
E-mail add Designated Operat The Parties may almay be necessary serve as the point of Interconnection Cu Interconnection: Address: City:	ting Representation so designate operation of contact with restormer's Operation Customer:	erating repres r the administ espect to oper ing Represent	entatives to conduration of this Agreations and mainte	ement. This person will all an ance of the Party's facilities
E-mail add Designated Operat The Parties may allowed as the point of	ting Representation so designate operation convenient for contact with restormer's Operation Customer: Operating Representation of the contact with restormer's Operation Customer:	erating represer the administ espect to opening Represent Fax:	entatives to conduration of this Agreations and mainte	ement. This person will all enance of the Party's facilities acidities.
E-mail add Designated Operat The Parties may allowed as the point of	ting Representation so designate operation convenient for contact with restorer's Operation Customer: Operating Representation of the contact with restorer's Operation Customer:	ive erating repres r the administ espect to oper ing Represent Fax: sentative:	entatives to conduration of this Agreations and mainte	ement. This person will all enance of the Party's facilities acidities.
E-mail add Designated Operat The Parties may allowed as the point of	ting Representation so designate operation convenient for contact with restorer's Operation Customer: Operating Representation of the contact with restorer's Operation Customer:	erating represer the administ espect to open ing Represent Fax:	entatives to conduration of this Agreations and mainte	ement. This person will all enance of the Party's facilities
E-mail add Designated Operat The Parties may allow as the point of th	ting Representation so designate operation convenient for contact with restorer's Operation Customer: Operating Representation of the contact with restorer's Operation Customer:	represent the administ espect to open ing Represent Fax:	entatives to conduration of this Agreations and mainte	ement. This person will all enance of the Party's facilities acidities. Zip:

CAISO's Operating Representative

California Independent System Operator Attention: 151 Blue Ravine Road Folsom, CA 95630 Phone: 916-351-4400 Fax:	
Changes to the Notice Information	
14. Signatures	
NESS WHEREOF, the Parties have caused this Agre thorized representatives.	eement to be executed by their respective
California Independent System Operator	
	_
Participating TO	
	_
Interconnection Customer	
	_
	Attention:

Attachment 1 Glossary Of Terms

Affected System – An electric system other than the CAISO Controlled Grid that may be affected by the proposed interconnection, including the Participating TO's electric system that is not part of the CAISO Controlled Grid.

Applicable Laws and Regulations – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Area Deliverability Constraint – A previously identified transmission system operating limit, based on a CAISO interconnection study or transmission planning study and listed on the CAISO website, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

Area Delivery Network Upgrade (ADNU) – A transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

Balancing Authority Area - The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Business Day – Monday through Friday, excluding federal holidays and the day after Thanksgiving Day.

Commercial Operation Date – The date on which a Small Generating Facility commenced generating electricity for sale as agreed upon by the Participating TO and the Interconnection Customer and in accordance with any implementation plan agreed to by the Participating TO and the CAISO for multiple individual generating units or project phases at a Small Generating Facility where an Interconnection Customer intends to establish separate Commercial Operation Dates for those generating units or project phases.

Default – The failure of a breaching Party to cure its breach under this Agreement.

Distribution System – Those non-CAISO-controlled transmission and distribution facilities owned by the Participating TO.

Distribution Upgrades – The additions, modifications, and upgrades to the Participating TO's Distribution System. Distribution Upgrades do not include Interconnection Facilities.

Generator Interconnection and Deliverability Allocation Procedures (GIDAP) – The CAISO protocol that sets forth the interconnection and allocation procedures applicable to an Interconnection Request pertaining to a Small Generating Facility that is included in CAISO Tariff Appendix DD.

Good Utility Practice – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, Participating TO, or any affiliate thereof.

Interconnection Facilities – The Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Participating TO's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

Interconnection Financial Security – Any of the financial instruments listed in Section 10.1 of the GIDAP that are posted by an Interconnection Customer.

Interconnection Handbook – A handbook, developed by the Participating TO and posted on the Participating TO's website or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's Transmission System, as such handbook may be modified or superseded from time to time. The Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and applicable reliability standards.

Interconnection Request – A request, in accordance with the CAISO Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the CAISO Controlled Grid

Interconnection Study -

- (i) For Interconnection Requests processed under the Cluster Study Process described in the GIDAP, any of the following: the Phase I Interconnection Study conducted or caused to be performed by the CAISO, the reassessment of the Phase I Interconnection Study Base Case conducted or caused to be performed by the CAISO prior to the commencement of the Phase II Interconnection Study, or the Phase II Interconnection Study conducted or caused to be performed by the CAISO, pursuant to the GIDAP.
- (ii) For Interconnection Requests processed under the Independent Study Process described in the GIDAP, the governing study(ies) conducted or caused to be performed by the CAISO pursuant to the GIDAP, which shall consist primarily of a Facilities Study as described in Section 4.5 of the GIDAP, a System Impact Study as described in Section 4.4 of the GIDAP, and, as applicable to Full Capacity Deliverability Status or Partial Deliverability Status, Phase I and Phase Interconnection Studies as described in Section 2.4.3 of the GIDAP.

Local Deliverability Constraint – A transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign full capacity or partial capacity deliverability status to one or more additional generating facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

Local Delivery Network Upgrade (LDNU) – A transmission upgrade or addition identified by the CAISO in the GIDAP study process to relieve a Local Deliverability Constraint.

CAISO Controlled Grid – The system of transmission lines and associated facilities of the parties to a Transmission Control Agreement that have been placed under the CAISO's Operational Control.

CAISO Tariff – The CAISO's tariff, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

Material Modification – A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

Merchant Network Upgrades – Network Upgrades constructed and owned by an Interconnection Customer pursuant to Article 5.2.1 of this SGIA, Section 13.3 of the GIDAP, and Sections 24.4.6.1 and 36.11 of the CAISO Tariff.

Network Upgrades – Additions, modifications, and upgrades to the Participating TO's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the CAISO Controlled Grid to accommodate the interconnection of the Small Generating Facility with the CAISO Controlled Grid. Network Upgrades do not include Distribution Upgrades.

Operational Control – The rights of the CAISO under a Transmission Control Agreement and the CAISO Tariff to direct the parties to the Transmission Control Agreement how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting applicable reliability criteria.

Operating Requirements – Any operating and technical requirements that may be applicable due to the CAISO, Western Electricity Coordinating Council, Balancing Authority Area, or the Participating TO's requirements, including those set forth in this Agreement.

Option (A) Interconnection Customer – An Interconnection Customer that elects to interconnect pursuant to Option (A) as set forth in Section 7.2 of the GIDAP.

Option (B) Interconnection Customer – An Interconnection Customer that elects to interconnect pursuant to Option (B) as set forth in Section 7.2 of the GIDAP.

Party or Parties – The Participating TO, CAISO, Interconnection Customer or the applicable combination of the above.

Phased Generating Facility – A Generating Facility that is structured to be completed and to achieve Commercial Operation in two or more successive sequences that are specified in this SGIA, such that each sequence comprises a portion of the total megawatt generation capacity of the entire Generating Facility.

Point of Interconnection – The point where the Interconnection Facilities connect with the Participating TO's Transmission System.

Reasonable Efforts – With respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Reliability Network Upgrades (RNU) – The transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Generating Facility(ies) safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or system operating limits. Reliability Network Upgrades shall only be deemed necessary for system operating limits, occurring under any system condition, which such system operating limits cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Generating Facility's interconnection may have on a path's WECC rating.

Small Generating Facility – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

TP Deliverability – The capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

Transmission Control Agreement - CAISO FERC Electric Tariff No. 7.

Transmission System – The facilities owned and operated by the Participating TO and that have been placed under the CAISO's Operational Control, which facilities form part of the CAISO Controlled Grid.

Upgrades – The required additions and modifications to the Participating TO's Transmission System and Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Attachment 2

Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Participating TO. The Participating TO will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

Attachment 3

One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

Attachment 4 Milestones

In-Service Date:	
Critical milestones and responsibility as agree	d to by the Parties:
Milestone/Date	Responsible Party
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
Agreed to by:	
For the CAISO	Date
For the Participating TO	Date
For the Interconnection Customer	Date

Attachment 5

Additional Operating Requirements for the CAISO Controlled Grid and Affected Systems Needed to Support

the Interconnection Customer's Needs

The Participating TO and the CAISO shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the CAISO Controlled Grid.

Attachment 6 Participating TO's Description of its Upgrades and Best Estimate of Upgrade Costs

The Participating TO shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Participating TO shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

Attachment 7

Interconnection Requirements for an Asynchronous Generating Facility

Attachment 7 sets forth requirements and provisions specific to all Asynchronous Generating Facilities. All other requirements of this Agreement continue to apply to all Asynchronous Generating Facility interconnections.

A. Technical Standards Applicable to Asynchronous Generating Facilities

i. Low Voltage Ride-Through (LVRT) Capability

A Asynchronous Generating Facility shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the requirements below.

- 1. An Asynchronous Generating Facility shall remain online for the voltage disturbance caused by any fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, having a duration equal to the lesser of the normal three-phase fault clearing time (4-9 cycles) or one-hundred fifty (150) milliseconds, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage. Clearing time shall be based on the maximum normal clearing time associated with any three-phase fault location that reduces the voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 2. An Asynchronous Generating Facility shall remain online for any voltage disturbance caused by a single-phase fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, with delayed clearing, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage. Clearing time shall be based on the maximum backup clearing time associated with a single point of failure (protection or breaker failure) for any single-phase fault location that reduces any phase-to-ground or phase-to-phase voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- Remaining on-line shall be defined as continuous connection between the Point of Interconnection and the Asynchronous Generating Facility's units, without any mechanical isolation. Asynchronous Generating Facilities may cease to inject current into the transmission grid during a fault.
- 4. The Asynchronous Generating Facility is not required to remain on line during multi-phased faults exceeding the duration described in Section A.i.1 of this Appendix H or single-phase faults exceeding the duration described in Section A.i.2 of this Appendix H.
- 5. The requirements of this Section A.i. of this Appendix H do not apply to faults that occur between the Asynchronous Generating Facility's terminals and the high side of the step-up transformer to the high-voltage transmission system.
- 6. Asynchronous Generating Facilities may be tripped after the fault period if this action is intended as part of a special protection system.
- 7. Asynchronous Generating Facilities may meet the of this Section A of this Appendix H through the performance of the generating units or by installing additional equipment within

- the Asynchronous Generating Facility or by a combination of generating unit performance and additional equipment.
- 8. The provisions of this Section A.i of this Appendix H apply only if the voltage at the Point of Interconnection has remained within the range of 0.9 and 1.10 per-unit of nominal voltage for the preceding two seconds, excluding any sub-cycle transient deviations.

ii. Frequency Disturbance Ride-Through Capacity

An Asynchronous Generating Facility shall comply with the off nominal frequency requirements set forth in the WECC Under Frequency Load Shedding Relay Application Guide or successor requirements as they may be amended from time to time.

iii. Power Factor Design and Operating Requirements (Reactive Power)

An Asynchronous Generating Facility shall operate within a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this SGIA in order to maintain a specified voltage schedule, if the Phase II Interconnection Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two, if agreed to by the Participating TO and CAISO. The Interconnection Customer shall not disable power factor equipment while the Asynchronous Generating Facility is in operation. Asynchronous Generating Facilities shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Phase II Interconnection Study shows this to be required for system safety or reliability.

iv. Supervisory Control and Data Acquisition (SCADA) Capability

An Asynchronous Generating Facility shall provide SCADA capability to transmit data and receive instructions from the Participating TO and CAISO to protect system reliability. The Participating TO and CAISO and the Asynchronous Generating Facility Interconnection Customer shall determine what SCADA information is essential for the proposed Asynchronous Generating Facility, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability.

v. Power System Stabilizers (PSS)

Power system stabilizers are not required for Asynchronous Generating Facilities.

Attachment 8 [This Attachment is Intentionally Omitted] Version: 0.0.0

Attachment G - Marked Tariff Language

Generation Interconnection and Deliverability Allocation Procedures

Amendment Filing

California Independent System Operator Corporation

Fifth Replacement FERC Electric Tariff

May 25, 2012

Attachment H - Marked LGIA Appendix EE

Generation Interconnection and Deliverability Allocation Procedures

Amendment Filing

California Independent System Operator Corporation

Fifth Replacement FERC Electric Tariff

May 25, 2012

Appendix EE

Large Generator Interconnection Agreement

for Interconnection Requests Processed under the Generator Interconnection and Deliverability

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LARGE GENERATOR INTERCONNECTION AGREEMENT

[INTERCONNECTION CUSTOMER]

[PARTICIPATING TO]

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

THIS LARGE GENERATOR INTERCONNECTION AGREEMENT ("LGIA") is made and entered into this day of 20 , by and among , a organized and existing under the laws of the State/Commonwealth of ("Interconnection Customer" with a Large Generating Facility), , a corporation organized and existing under the laws of the State of California ("Participating TO"), and California Independent System

Operator Corporation, a California nonprofit public benefit corporation organized and existing under the laws of the State of California ("CAISO"). Interconnection Customer, Participating TO, and CAISO each may be referred to as a "Party" or collectively as the "Parties."

RECITALS

WHEREAS, CAISO exercises Operational Control over the CAISO Controlled Grid; and

WHEREAS, the Participating TO owns, operates, and maintains the Participating TO's Transmission System; and

WHEREAS, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this LGIA; and

WHEREAS, Interconnection Customer, Participating TO, and CAISO have agreed to enter into this LGIA for the purpose of interconnecting the Large Generating Facility with the Participating TO's Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this LGIA, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used.

Article 1. Definitions

ADNU shall mean Area Delivery Network Upgrade.

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric system other than the CAISO Controlled Grid that may be affected by the proposed interconnection, including the Participating TO's electric system that is not part of the CAISO Controlled Grid.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Applicable Reliability Council shall mean the Western Electricity Coordinating Council or its successor.

Applicable Reliability Standards shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Balancing Authority Area of the Participating TO's Transmission System to which the Generating Facility is directly connected, including requirements adopted pursuant to Section 215 of the Federal Power Act.

Area Deliverability Constraint shall mean a previously identified transmission system operating limit, based on a CAISO interconnection study or transmission planning study and listed on the CAISO website, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

Area Delivery Network Upgrade shall mean a transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

Asynchronous Generating Facility shall mean an induction, doubly-fed, or electronic power generating unit(s) that produces 60 Hz (nominal) alternating current.

Balancing Authority shall mean the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.

<u>Balancing Authority Area</u> shall mean the collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Base Case shall mean the base case power flow, short circuit, and stability databases used for the Interconnection Studies.

Breach shall mean the failure of a Party to perform or observe any material term or condition of this LGIA.

Breaching Party shall mean a Party that is in Breach of this LGIA.

Business Day shall mean Monday through Friday, excluding federal holidays and the day after Thanksgiving Day.

<u>CAISO Controlled Grid</u> shall mean the system of transmission lines and associated facilities of the parties to the Transmission Control Agreement that have been placed under the CAISO's Operational Control.

<u>CAISO Tariff</u> shall mean the CAISO's tariff, as filed with FERC, and as amended or <u>supplemented from time to time, or any successor tariff.</u>

Calendar Day shall mean any day including Saturday, Sunday or a federal holiday.

<u>Commercial Operation</u> shall mean the status of an Electric Generating Unit or project phase at a <u>Generating Facility that has commenced generating electricity for sale, excluding electricity generated</u> during Trial Operation. Commercial Operation Date of an Electric Generating Unit or project phase shall mean the date on which the Electric Generating Unit or project phase at the Generating Facility commences Commercial Operation as agreed to by the applicable Participating TO, the CAISO, and the Interconnection Customer pursuant to Appendix E to this LGIA, and in accordance with the implementation plan agreed to by the Participating TO and the CAISO for multiple individual Electric Generating Units or project phases at a Generating Facility where an Interconnection Customer intends to establish separate Commercial Operation Dates for those Electric Generating Units or project phases.

Confidential Information shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, subject to Article 22.1.2.

Deliverability shall mean (1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability Assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an Intertie which specifies the amount of resource adequacy capacity measured in MW, that load-serving entities collectively can procure from imports at that Intertie to meet their resource adequacy requirements.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of this LGIA.

<u>Distribution System shall mean those non-CAISO-controlled transmission and distribution facilities owned by the Participating TO.</u>

<u>Distribution Upgrades</u> shall mean the additions, modifications, and upgrades to the Participating TO's Distribution System. Distribution Upgrades do not include Interconnection Facilities.

<u>Effective Date</u> shall mean the date on which this LGIA becomes effective upon execution by all Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

<u>Electric Generating Unit shall mean an individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered.</u>

Emergency Condition shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the CAISO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the CAISO Controlled Grid or the electric systems of others to which the CAISO Controlled Grid is directly connected; (3) that, in the case of the Participating TO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Participating TO's Transmission System, Participating TO's Interconnection Facilities, Distribution System, or the electric systems of others to which the Participating TO's electric system is directly connected; or (4) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.

<u>Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.</u>

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seg.

FERC shall mean the Federal Energy Regulatory Commission or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean the Interconnection Customer's Electric Generating Unit(s) used for the production of electricity identified in the Interconnection Customer's Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Generator Interconnection and Deliverability Allocation Procedures (GIDAP) shall mean the CAISO protocol that sets forth the interconnection and allocation procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in CAISO Tariff Appendix DD.

<u>Generator Interconnection Study Process Agreement</u> shall mean the agreement between the <u>Interconnection Customer and the CAISO for the conduct of the Interconnection Studies.</u>

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, Participating TO, or any Affiliate thereof.

Governing Independent Study Process Interconnection Studies shall mean the engineering study(ies) conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), that evaluates the impact of the proposed interconnection on the safety and reliability of the Participating TO's Transmission System and, if applicable, an Affected System, which shall consist primarily of a Facilities Study as described in Section 4.5 of the Generation Interconnection Procedures, a System Impact Study as described in Section 4.4 of the Generation Interconnection Procedures, a Facilities Study as described in Section 4.5 of the GIDAP, or a System Impact Study as described in Section 4.4 of the GIDAP.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

<u>Initial Synchronization Date</u> shall mean the date upon which an Electric Generating Unit is initially synchronized and upon which Trial Operation begins.

<u>In-Service Date</u> shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Participating TO's Interconnection Facilities to obtain back feed power.

Interconnection Customer's Interconnection Facilities shall mean all facilities and equipment, as identified in Appendix A of this LGIA, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Participating TO's Transmission System. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Participating TO's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

<u>Interconnection Financial Security</u> shall mean any of the financial instruments listed in Section 11.1 of the GIDAP that are posted by an Interconnection Customer.

Interconnection Handbook shall mean a handbook, developed by the Participating TO and posted on the Participating TO's web site or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's portion of the CAISO Controlled Grid, as such handbook may be modified or superseded from time to time. Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Standards. In the event of a conflict between the terms of this LGIA and the terms of the Participating TO's Interconnection Handbook, the terms in this LGIA shall apply.

<u>Interconnection Request</u> shall mean a request, in the form of Appendix 1 to the GIDAP, in accordance with the CAISO Tariff.

Interconnection Service shall mean the service provided by the Participating TO and CAISO associated with interconnecting the Interconnection Customer's Generating Facility to the Participating TO's Transmission System and enabling the CAISO Controlled Grid to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of this LGIA, the Participating TO's Transmission Owner Tariff, and the CAISO Tariff.

Interconnection Study shall mean

- (i) For Interconnection Requests processed under the Cluster Study Process described in the GIDAP, any of the following: the Phase I Interconnection Study conducted or caused to be performed by the CAISO, the reassessment of the Phase I Interconnection Study Base Case conducted or caused to be performed by the CAISO prior to the commencement of the Phase II Interconnection Study, or the Phase II Interconnection Study conducted or caused to be performed by the CAISO, pursuant to the GIDAP.
- (ii) For Interconnection Requests processed under the Independent Study Process described in the GIDAP, the governing study(ies) conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), pursuant to the GIDAP, which shall consist primarily of a Facilities Study as described in Section 4.5 of the GIDAP or a System Impact Study as described in Section 4.4 of the GIDAP.

IRS shall mean the Internal Revenue Service.

<u>Large Generating Facility</u> shall mean a Generating Facility having a Generating Facility <u>Capacity of more than 20 MW.</u>

LDNU shall mean Local Delivery Network Upgrades.

Local Deliverability Constraint shall mean a transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign full capacity or partial capacity deliverability status to one or more additional generating facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

<u>Local Delivery Network Upgrade</u> shall mean a transmission upgrade or addition identified by the CAISO in the GIDAP study process to relieve a Local Deliverability Constraint.

Loss shall mean any and all damages, losses, and claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

<u>Merchant Network Upgrades</u> – Network Upgrades constructed and owned by an <u>Interconnection Customer or a third party pursuant to Article 5.1.5 of this LGIA, Section 14.3 of the GIDAP, and Sections 24.4.6.1 and 36.11 of the CAISO Tariff.</u>

Metering Equipment shall mean all metering equipment installed or to be installed for measuring the output of the Generating Facility pursuant to this LGIA at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

Network Upgrades shall be Participating TO's Delivery Network Upgrades and Participating TO's Reliability Network Upgrades.

Operational Control shall mean the rights of the CAISO under the Transmission Control

Agreement and the CAISO Tariff to direct the parties to the Transmission Control Agreement how to
operate their transmission lines and facilities and other electric plant affecting the reliability of those lines
and facilities for the purpose of affording comparable non-discriminatory transmission access and
meeting applicable reliability criteria.

Option (A) Generating Facilities shall mean a Generating Facility for which the Interconnection Customer has selected Option (A) as the Deliverability option under Section 7.2 of the GIDAP.

Option (B) Generating Facilities shall mean a Generating Facility for which the Interconnection Customer has selected Option (B) as the Deliverability option under Section 7.2 of the GIDAP.

Participating TO's Delivery Network Upgrades shall mean the additions, modifications, and upgrades to the Participating TO's Transmission System at or beyond the Point of Interconnection, other than Reliability Network Upgrades, identified in the Interconnection Studies, as identified in Appendix A, to relieve constraints on the CAISO Controlled Grid. Participating TO Delivery Network Upgrades can be either ADNU or LDNU.

Participating TO's Interconnection Facilities shall mean all facilities and equipment owned, controlled or operated by the Participating TO from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to this LGIA, including any modifications, additions or upgrades to such facilities and equipment. Participating TO's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Participating TO's Reliability Network Upgrades shall mean the additions, modifications, and upgrades to the Participating TO's Transmission System at or beyond the Point of Interconnection, identified in the Interconnection Studies, as identified in Appendix A, necessary to interconnect the Large Generating Facility safely and reliably to the Participating TO's Transmission System, which would not have been necessary but for the interconnection of the Large Generating Facility, including additions, modifications, and upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the Participating TO's Transmission System.

Participating TO's Reliability Network Upgrades also include, consistent with Applicable Reliability Standards and Applicable Reliability Council practice, the Participating TO's facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's Applicable Reliability Council rating. Participating TO's Reliability Network Upgrades do not include any Participating TO's Delivery Network Upgrades.

<u>Participating TO's Transmission System</u> shall mean the facilities owned and operated by the <u>Participating TO and that have been placed under the CAISO's Operational Control, which facilities form part of the CAISO Controlled Grid.</u>

<u>Party or Parties shall mean the Participating TO, CAISO, Interconnection Customer or the</u> applicable combination of the above.

Phase I Interconnection Study shall mean the engineering study conducted or caused to be performed by the CAISO, in coordination with the applicable Participating TO(s), that evaluates the impact of the proposed interconnection on the safety and reliability of the Participating TO's Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility(ies) were interconnected without identified project modifications or system modifications, as provided in the On-Peak Deliverability Assessment (as defined in the CAISO Tariff), and other potential impacts, including but not limited to those identified in the Scoping Meeting as described in the GIDAP. The study will also identify the approximate total costs, based on per unit costs, of mitigating these impacts, along with an equitable allocation of those costs to Interconnection Customers for their individual Generating Facilities.

Phase II Interconnection Study shall mean an engineering and operational study conducted or caused to be performed by the CAISO in coordination with the applicable Participating TO(s), to determine the Point of Interconnection and a list of facilities (including the Participating TO's Interconnection Facilities, Network Upgrades, Distribution Upgrades, and Stand Alone Network Upgrades), the cost of those facilities, and the time required to interconnect the Generating Facility(ies) with the Participating TO's Transmission System.

Phased Generating Facility shall mean a Generating Facility that is structured to be completed and to achieve Commercial Operation in two or more successive sequences that are specified in this LGIA, such that each sequence comprises a portion of the total megawatt generation capacity of the entire Generating Facility.

<u>Point of Change of Ownership</u> shall mean the point, as set forth in Appendix A to this LGIA, where the Interconnection Customer's Interconnection Facilities connect to the Participating TO's <u>Interconnection Facilities</u>.

<u>Point of Interconnection</u> shall mean the point, as set forth in Appendix A to this LGIA, where the <u>Interconnection Facilities connect to the Participating TO's Transmission System.</u>

QF PGA shall mean a Qualifying Facility Participating Generator Agreement specifying the special provisions for the operating relationship between a Qualifying Facility and the CAISO, a pro forma version of which is set forth in Appendix B.3 of the CAISO Tariff.

Qualifying Facility shall mean a qualifying cogeneration facility or qualifying small power production facility, as defined in the Code of Federal Regulations, Title 18, Part 292 (18 C.F.R. §292).

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under this LGIA, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

RNU shall mean Reliability Network Upgrades.

Reliability Network Upgrades shall mean the transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Generating Facility(ies) safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for system operating limits, occurring under any system condition, which such system operating limits cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Generating Facility's interconnection may have on a path's WECC rating.

Scoping Meeting shall mean the meeting among representatives of the Interconnection

Customer, the Participating TO(s), other Affected Systems, and the CAISO conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Stand Alone Network Upgrades shall mean Network Upgrades, that the Interconnection Customer may construct without affecting day-to-day operations of the CAISO Controlled Grid or Affected Systems during their construction. The Participating TO, the CAISO, and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to this LGIA. (

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, that protects (1) the Participating TO's Transmission System, Participating TO's Interconnection Facilities, CAISO Controlled Grid, and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the CAISO Controlled Grid, Participating TO's Interconnection Facilities, and Affected Systems or on other delivery systems or other generating systems to which the CAISO Controlled Grid is directly connected.

TP Deliverability shall mean the capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

<u>Transmission Control Agreement shall mean CAISO FERC Electric Tariff No. 7.</u>

<u>Trial Operation</u> shall mean the period during which the Interconnection Customer is engaged in on-site test operations and commissioning of an Electric Generating Unit prior to Commercial Operation.

Article 2. Effective Date, Term and Termination

- 2.1 Effective Date. This LGIA shall become effective upon execution by all Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. The CAISO and Participating TO shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.
- Term of Agreement. Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of years from the Effective Date (Term Specified in Individual Agreements to be ten (10) years or such other longer period as the Interconnection Customer may request) and shall be automatically renewed for each successive one-year period thereafter.

2.3 Termination Procedures.

- 2.3.1 Written Notice. This LGIA may be terminated by the Interconnection Customer after giving the CAISO and the Participating TO ninety (90) Calendar Days advance written notice, or by the CAISO and the Participating TO notifying FERC after the Generating Facility permanently ceases Commercial Operation.
- **2.3.2 Default.** A Party may terminate this LGIA in accordance with Article 17.
- 2.3.3 Suspension of Work. This LGIA may be deemed terminated in accordance with Article 5.16.
- 2.3.4 Notwithstanding Articles 2.3.1, 2.3.2, and 2.3.3, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA (if applicable), which notice has been accepted for filing by FERC, and the Interconnection Customer has fulfilled its termination cost obligations under Article 2.4.
- 2.4 Termination Costs. Immediately upon the other Parties' receipt of a notice of the termination of this LGIA pursuant to Article 2.3 above, the CAISO and the Participating TO will determine the total cost responsibility of the Interconnection Customer. If, as of the date of the other Parties' receipt of the notice of termination, the Interconnection Customer has not already paid its share of Network Upgrade costs, as set forth in Appendix G to this LGIA, the Participating TO will liquidate the Interconnection Customer's Interconnection Financial Security associated with its cost responsibility for Network Upgrades, in accordance with Section 11.4 of the GIDAP.

The Interconnection Customer will also be responsible for all costs incurred or irrevocably committed to be incurred in association with the construction of the Participating TO's Interconnection Facilities (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) and other such expenses, including any Distribution Upgrades for which the Participating TO or CAISO has incurred expenses or has irrevocably committed to incur expenses and has not been reimbursed by the Interconnection Customer, as of the date of the other Parties' receipt of the notice of termination, subject to the limitations set forth in this Article 2.4. Nothing in this Article 2.4 shall limit the Parties' rights under Article 17. If, as of the date of the other Parties' receipt of the notice of termination, the Interconnection Customer has not already reimbursed the Participating TO and the CAISO for costs incurred to construct the Participating TO's Interconnection Facilities, the Participating TO will liquidate the Interconnection Customer's Interconnection Financial Security associated with the construction of the Participating TO's Interconnection Facilities, in accordance with Section 11.4 of the GIDAP. If the amount of the Interconnection Financial Security liquidated by the Participating TO under this Article 2.4 is insufficient to compensate the CAISO and the Participating TO for actual costs

associated with the construction of the Participating TO's Interconnection Facilities contemplated in this Article, any additional amounts will be the responsibility of the Interconnection Customer, subject to the provisions of Section 11.4 of the GIDAP. Any such additional amounts due from the Interconnection Customer beyond the amounts covered by its Interconnection Financial Security will be due to the Participating TO immediately upon termination of this LGIA in accordance with Section 11.4 of the GIDAP.

If the amount of the Interconnection Financial Security exceeds the Interconnection Customer's cost responsibility under Section 11.4 of the GIDAP, any excess amount will be released to the Interconnection Customer in accordance with Section 11.4 of the GIDAP.

- 2.4.1 Notwithstanding the foregoing, in the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages, and charges arising as a consequence of termination. With respect to any portion of the Participating TO's Interconnection Facilities that have not yet been constructed or installed, the Participating TO shall to the extent possible and with the Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event the Interconnection Customer elects not to authorize such cancellation, the Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the Participating TO shall deliver such material and equipment, and, if necessary, assign such contracts, to the Interconnection Customer as soon as practicable, at the Interconnection Customer's expense. To the extent that the Interconnection Customer has already paid the Participating TO for any or all such costs of materials or equipment not taken by the Interconnection Customer, the Participating TO shall promptly refund such amounts to the Interconnection Customer, less any costs, including penalties, incurred by the Participating TO to cancel any pending orders of or return such materials, equipment, or contracts.
- 2.4.2 The Participating TO may, at its option, retain any portion of such materials, equipment, or facilities that the Interconnection Customer chooses not to accept delivery of, in which case the Participating TO shall be responsible for all costs associated with procuring such materials, equipment, or facilities.
- 2.4.3 With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.
- 2.5 Disconnection. Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Participating TO's Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.
- Survival. This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Parties pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

Article 3. Regulatory Filings and CAISO Tariff Compliance

3.1 Filing. The Participating TO and the CAISO shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority(ies), if required. The Interconnection Customer may

request that any information so provided be subject to the confidentiality provisions of Article 22. If the Interconnection Customer has executed this LGIA, or any amendment thereto, the Interconnection Customer shall reasonably cooperate with the Participating TO and CAISO with respect to such filing and to provide any information reasonably requested by the Participating TO or CAISO needed to comply with applicable regulatory requirements.

- 3.2 Agreement Subject to CAISO Tariff. The Interconnection Customer will comply with all applicable provisions of the CAISO Tariff, including the GIDAP.
- 3.3 Relationship Between this LGIA and the CAISO Tariff. With regard to rights and obligations between the Participating TO and the Interconnection Customer, if and to the extent a matter is specifically addressed by a provision of this LGIA (including any appendices, schedules or other attachments to this LGIA), the provisions of this LGIA shall govern. If and to the extent a provision of this LGIA is inconsistent with the CAISO Tariff and dictates rights and obligations between the CAISO and the Participating TO or the CAISO and the Interconnection Customer, the CAISO Tariff shall govern.
- 3.4 Relationship Between this LGIA and the QF PGA. With regard to the rights and obligations of a Qualifying Facility that has entered into a QF PGA with the CAISO and has entered into this LGIA, if and to the extent a matter is specifically addressed by a provision of the QF PGA that is inconsistent with this LGIA, the terms of the QF PGA shall govern.

Article 4. Scope of Service

4.1 Interconnection Service. Interconnection Service allows the Interconnection Customer to connect the Large Generating Facility to the Participating TO's Transmission System and be eligible to deliver the Large Generating Facility's output using the available capacity of the CAISO Controlled Grid. To the extent the Interconnection Customer wants to receive Interconnection Service, the Participating TO shall construct facilities identified in Appendices A and C that the Participating TO is responsible to construct.

Interconnection Service does not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the CAISO Controlled Grid without incurring congestion costs. In the event of transmission constraints on the CAISO Controlled Grid, the Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in the CAISO Tariff in the same manner as all other resources.

- 4.2 Provision of Service. The Participating TO and the CAISO shall provide Interconnection Service for the Large Generating Facility.
- 4.3 Performance Standards. Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is the CAISO or Participating TO, then that Party shall amend the LGIA and submit the amendment to FERC for approval.

- 4.4 No Transmission Service. The execution of this LGIA does not constitute a request for, nor the provision of, any transmission service under the CAISO Tariff, and does not convey any right to deliver electricity to any specific customer or point of delivery.
- 4.5 Interconnection Customer Provided Services. The services provided by Interconnection
 Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1. Interconnection
 Customer shall be paid for such services in accordance with Article 11.6.
- 4.6 TP Deliverability. To the extent that an Interconnection Customer is eligible for and has been allocated TP Deliverability pursuant to Section 8.9 of the GIDAP, the Interconnection Customer's retention of such allocated TP Deliverability shall be contingent upon satisfying the obligations set forth in Section 8.9.3 of the GIDAP. In the event that the Interconnection does not retain allocated TP Deliverability with regard to any portion of the Generating Facility, such portion of the Generating Facility shall be deemed to receive Interconnection Service under this LGIA as Energy Only Deliverability Status.

ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION

Interconnection Facilities, Network Upgrades, and Distribution Upgrades shall be studied, designed, and constructed pursuant to Good Utility Practice. Such studies, design and construction shall be based on the assumed accuracy and completeness of all technical information received by the Participating TO and the CAISO from the Interconnection Customer associated with interconnecting the Large Generating Facility.

- 5.1 Options. Unless otherwise mutually agreed among the Parties, the Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option, Alternate Option, or, if eligible, Merchant Option, set forth below for completion of the Participating TO's Interconnection Facilities and Network Upgrades as set forth in Appendix A, Interconnection Facilities, Network Upgrades, and Distribution Upgrades, and such dates and selected option shall be set forth in Appendix B, Milestones.
 - 5.1.1 Standard Option. The Participating TO shall design, procure, and construct the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, using Reasonable Efforts to complete the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades by the dates set forth in Appendix B, Milestones. The Participating TO shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event the Participating TO reasonably expects that it will not be able to complete the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades by the specified dates, the Participating TO shall promptly provide written notice to the Interconnection Customer and the CAISO and shall undertake Reasonable Efforts to meet the earliest dates thereafter.
 - 5.1.2 Alternate Option. If the dates designated by the Interconnection Customer are acceptable to the Participating TO, the Participating TO shall so notify the Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities by the designated dates.

If the Participating TO subsequently fails to complete the Participating TO's
Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; the Participating TO shall pay the Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by the Interconnection Customer shall be extended day for day for each day that the CAISO refuses to grant clearances to install equipment.

- 5.1.3 Option to Build. If the dates designated by the Interconnection Customer are not acceptable to the Participating TO, the Participating TO shall so notify the Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, the Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades. If the Interconnection Customer elects to exercise its option to assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, it shall so notify the Participating TO within thirty (30) Calendar Days of receipt of the Participating TO's notification that the designated dates are not acceptable to the Participating TO. The Participating TO, CAISO, and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A to this LGIA. Except for Stand Alone Network Upgrades, the Interconnection Customer shall have no right to construct Network Upgrades under this option.
- 5.1.4 Negotiated Option. If the Interconnection Customer elects not to exercise its option under Article 5.1.3, Option to Build, the Interconnection Customer shall so notify the Participating TO within thirty (30) Calendar Days of receipt of the Participating TO's notification that the designated dates are not acceptable to the Participating TO, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades by the Interconnection Customer) pursuant to which the Participating TO is responsible for the design, procurement and construction of the Participating TO's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, the Participating TO shall assume responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Network Upgrades pursuant to Article 5.1.1, Standard Option.
- 5.1.5 Merchant Option. In addition to any Option to Build set forth in Article 5.1.3 of this LGIA, an Interconnection Customer having an Option (B) Generating Facility may elect to have a party other than the applicable Participating TO construct some or all of the LDNU and ADNU for which the Interconnection Customer has the obligation to fund and which are not subject to reimbursement. Such LDNU and ADNU will be constructed and incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1 and 36.11

- 5.2 General Conditions Applicable to Option to Build. If the Interconnection Customer assumes responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades,
 - (1) the Interconnection Customer shall engineer, procure equipment, and construct the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Participating TO;
 - (2) The Interconnection Customer's engineering, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which the Participating TO would be subject in the engineering, procurement or construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;
 - (3) the Participating TO shall review, and the Interconnection Customer shall obtain the Participating TO's approval of, the engineering design, equipment acceptance tests, and the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, which approval shall not be unreasonably withheld, and the CAISO may, at its option, review the engineering design, equipment acceptance tests, and the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;
 - (4) prior to commencement of construction, the Interconnection Customer shall provide to the Participating TO, with a copy to the CAISO for informational purposes, a schedule for construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from the Participating TO;
 - (5) at any time during construction, the Participating TO shall have the right to gain unrestricted access to the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;
 - (6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by the Participating TO, the Interconnection Customer shall be obligated to remedy deficiencies in that portion of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades;
 - (7) the Interconnection Customer shall indemnify the CAISO and Participating TO for claims arising from the Interconnection Customer's construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity;
 - (8) The Interconnection Customer shall transfer control of the Participating TO's Interconnection Facilities to the Participating TO and shall transfer Operational Control of Stand Alone Network Upgrades to the CAISO;
 - (9) Unless the Parties otherwise agree, the Interconnection Customer shall transfer ownership of the Participating TO's Interconnection Facilities and Stand Alone Network

Upgrades to the Participating TO. As soon as reasonably practicable, but within twelve months after completion of the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades, the Interconnection Customer shall provide an invoice of the final cost of the construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the Participating TO, which invoice shall set forth such costs in sufficient detail to enable the Participating TO to reflect the proper costs of such facilities in its transmission rate base and to identify the investment upon which refunds will be provided;

- (10) the Participating TO shall accept for operation and maintenance the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and
- (11) The Interconnection Customer's engineering, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of the "Option to Build" conditions set forth in Appendix C. Interconnection Customer shall deliver to the Participating TO "as-built" drawings, information, and any other documents that are reasonably required by the Participating TO to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by the Participating TO.
- <u>Participating TO's Interconnection Facilities or Network Upgrades are not completed by the dates designated by the Interconnection Customer and accepted by the Participating TO pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Participating TO to the Interconnection Customer in the event that the Participating TO does not complete any portion of the Participating TO's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of the Participating TO's Interconnection Facilities and Network Upgrades, in the aggregate, for which the Participating TO has assumed responsibility to design, procure and construct.</u>

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Participating TO's Interconnection Facilities and Network Upgrades for which the Participating TO has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Participating TO to the Interconnection Customer as just compensation for the damages caused to the Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Participating TO's failure to meet its schedule.

No liquidated damages shall be paid to the Interconnection Customer if: (1) the Interconnection Customer is not ready to commence use of the Participating TO's Interconnection Facilities or Network Upgrades to take the delivery of power for the Electric Generating Unit's Trial Operation or to export power from the Electric Generating Unit on the specified dates, unless the Interconnection Customer would have been able to commence use of the Participating TO's Interconnection Facilities or Network Upgrades to take the delivery of power for Electric Generating Unit's Trial Operation or to export power from the Electric Generating Unit, but for the

Participating TO's delay; (2) the Participating TO's failure to meet the specified dates is the result of the action or inaction of the Interconnection Customer or any other interconnection customer who has entered into an interconnection agreement with the CAISO and/or Participating TO, action or inaction by the CAISO, or any cause beyond the Participating TO's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

In no event shall the CAISO have any responsibility or liability to the Interconnection Customer for liquidated damages pursuant to the provisions of this Article 5.3.

- Power System Stabilizers. The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with Applicable Reliability Standards, the guidelines and procedures established by the Applicable Reliability Council, and the provisions of Section 4.6.5.1 of the CAISO Tariff. The CAISO reserves the right to establish reasonable minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, the Interconnection Customer shall immediately notify the CAISO and the Participating TO and restore the Power System Stabilizers to operation as soon as possible. The CAISO shall have the right to order the reduction in output or disconnection of the Large Generating Facility if the reliability of the CAISO Controlled Grid would be adversely affected as a result of improperly tuned Power System Stabilizers. The requirements of this Article 5.4 shall apply to Asynchronous Generating Facilities in accordance with Appendix H.
- Equipment Procurement. If responsibility for construction of the Participating TO's
 Interconnection Facilities or Network Upgrades is to be borne by the Participating TO, then the Participating TO shall commence design of the Participating TO's Interconnection Facilities or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:
 - 5.5.1 The CAISO, in coordination with the applicable Participating TO(s), has completed the Phase II Interconnection Study or Governing Independent Study Interconnection Study pursuant to the applicable Generator Interconnection Facilities Study Process Agreement or other applicable study process agreement;
 - 5.5.2 The Participating TO has received written authorization to proceed with design and procurement from the Interconnection Customer by the date specified in Appendix B, Milestones; and
 - 5.5.3 The Interconnection Customer has provided security to the Participating TO in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.
- <u>Construction Commencement.</u> The Participating TO shall commence construction of the Participating TO's Interconnection Facilities and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:
 - 5.6.1 Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

- 5.6.2 Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Participating TO's Interconnection Facilities and Network Upgrades;
- 5.6.3 The Participating TO has received written authorization to proceed with construction from the Interconnection Customer by the date specified in Appendix B, Milestones; and
- 5.6.4 The Interconnection Customer has provided payment and security to the Participating TO in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.
- 5.7 Work Progress. The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Any Party may, at any time, request a progress report from another Party. If, at any time, the Interconnection Customer determines that the completion of the Participating TO's Interconnection Facilities will not be required until after the specified In-Service Date, the Interconnection Customer will provide written notice to the Participating TO and CAISO of such later date upon which the completion of the Participating TO's Interconnection Facilities will be required.
- 5.8 Information Exchange. As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Interconnection Customer's Interconnection Facilities and Participating TO's Interconnection Facilities and compatibility of the Interconnection Facilities with the Participating TO's Transmission System, and shall work diligently and in good faith to make any necessary design changes.
- Limited Operation. If any of the Participating TO's Interconnection Facilities or Network

 Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date
 of the Electric Generating Unit, the Participating TO and/or CAISO, as applicable, shall, upon the
 request and at the expense of the Interconnection Customer, perform operating studies on a
 timely basis to determine the extent to which the Electric Generating Unit and the Interconnection
 Customer's Interconnection Facilities may operate prior to the completion of the Participating
 TO's Interconnection Facilities or Network Upgrades consistent with Applicable Laws and
 Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. The
 Participating TO and CAISO shall permit Interconnection Customer to operate the Electric
 Generating Unit and the Interconnection Customer's Interconnection Facilities in accordance with
 the results of such studies.
- 5.10 Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall,
 at its expense, design, procure, construct, own and install the Interconnection Customer's
 Interconnection Facilities, as set forth in Appendix A.
 - 5.10.1 Large Generating Facility and Interconnection Customer's Interconnection

 Facilities Specifications. In addition to the Interconnection Customer's responsibility to submit technical data with its Interconnection Request as required by Section 3.5.1 of the GIDAP, the Interconnection Customer shall submit all remaining necessary specifications for the Interconnection Customer's Interconnection Facilities and Large Generating Facility, including System Protection Facilities, to the Participating TO and the CAISO at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. The Participating TO and the CAISO shall review such specifications pursuant to this LGIA and the GIDAP to ensure that the

Interconnection Customer's Interconnection Facilities and Large Generating Facility are compatible with the technical specifications, operational control, safety requirements, and any other applicable requirements of the Participating TO and the CAISO and comment on such specifications within thirty (30) Calendar Days of the Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

- 5.10.2 Participating TO's and CAISO's Review. The Participating TO's and the CAISO's review of the Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall make such changes to the Interconnection Customer's Interconnection Facilities as may reasonably be required by the Participating TO or the CAISO, in accordance with Good Utility Practice, to ensure that the Interconnection Customer's Interconnection Facilities are compatible with the technical specifications, Operational Control, and safety requirements of the Participating TO or the CAISO.
- 5.10.3 Interconnection Customer's Interconnection Facilities Construction. The Interconnection Customer's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Participating TO and Interconnection Customer agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Participating TO and CAISO "as-built" drawings, information and documents for the Interconnection Customer's Interconnection Facilities and the Electric Generating Unit(s), such as: a one-line diagram, a site plan showing the Large Generating Facility and the Interconnection Customer's Interconnection Facilities, plan and elevation drawings showing the layout of the Interconnection Customer's Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the Interconnection Customer's Interconnection Facilities, and the impedances (determined by factory tests) for the associated step-up transformers and the Electric Generating Units. The Interconnection Customer shall provide the Participating TO and the CAISO specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable. Any deviations from the relay settings, machine specifications, and other specifications originally submitted by the Interconnection Customer shall be assessed by the Participating TO and the CAISO pursuant to the appropriate provisions of this LGIA and the GIDAP.
- 5.10.4 Interconnection Customer to Meet Requirements of the Participating TO's

 Interconnection Handbook. The Interconnection Customer shall comply with the Participating TO's Interconnection Handbook.
- 5.11 Participating TO's Interconnection Facilities Construction. The Participating TO's
 Interconnection Facilities shall be designed and constructed in accordance with Good Utility
 Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial
 Operation Date, unless the Participating TO and Interconnection Customer agree on another
 mutually acceptable deadline, the Participating TO shall deliver to the Interconnection Customer

and the CAISO the following "as-built" drawings, information and documents for the Participating TO's Interconnection Facilities [include appropriate drawings and relay diagrams].

The Participating TO will obtain control for operating and maintenance purposes of the Participating TO's Interconnection Facilities and Stand Alone Network Upgrades upon completion of such facilities. Pursuant to Article 5.2, the CAISO will obtain Operational Control of the Stand Alone Network Upgrades prior to the Commercial Operation Date.

- 5.12 Access Rights. Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Participating TO's Transmission System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Participating TO's Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.
- 5.13 Lands of Other Property Owners. If any part of the Participating TO's Interconnection Facilities and/or Network Upgrades are to be installed on property owned by persons other than the Interconnection Customer or Participating TO, the Participating TO shall at the Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Participating TO's Interconnection Facilities and/or Network Upgrades upon such property.
- <u>5.14 Permits.</u> Participating TO and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorization that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, the Participating TO shall provide permitting assistance to the Interconnection Customer comparable to that provided to the Participating TO's own, or an Affiliate's generation.
- <u>Participating TO to construct, and the Participating TO shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades required for Interconnection Customer to be interconnected to the Participating TO's Transmission System which are included in the Base Case of the Interconnection Studies for the Interconnection Customer, and which also are required to be constructed for another interconnection customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.</u>
- 5.16 Suspension. The Interconnection Customer reserves the right, upon written notice to theParticipating TO and the CAISO, to suspend at any time all work associated with the construction

and installation of the Participating TO's Interconnection Facilities, Network Upgrades, and/or Distribution Upgrades required under this LGIA, other than Network Upgrades identified in the Phase II Interconnection Study as common to multiple Generating Facilities, with the condition that the Participating TO's electrical system and the CAISO Controlled Grid shall be left in a safe and reliable condition in accordance with Good Utility Practice and the Participating TO's safety and reliability criteria and the CAISO's Applicable Reliability Standards. In such event, the Interconnection Customer shall be responsible for all reasonable and necessary costs which the Participating TO (i) has incurred pursuant to this LGIA prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Participating TO's electric system during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which the Participating TO cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, the Participating TO shall obtain Interconnection Customer's authorization to do so.

Network Upgrades common to multiple Generating Facilities, and to which the Interconnection Customer's right of suspension shall not extend, consist of Network Upgrades identified for:

- (i) Generating Facilities which are the subject of all Interconnection Requests made prior to the Interconnection Customer's Interconnection Request;
- (ii) Generating Facilities which are the subject of Interconnection Requests within the Interconnection Customer's queue cluster; and
- (iii) Generating Facilities that are the subject of Interconnection Requests that were made after the Interconnection Customer's Interconnection Request but no later than the date on which the Interconnection Customer's Phase II Study Report is issued, and have been modeled in the Base Case at the time the Interconnection Customer seeks to exercise its suspension rights under this Section.

The Participating TO shall invoice the Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work required under this LGIA pursuant to this Article 5.16, and has not requested the Participating TO to recommence the work or has not itself recommenced work required under this LGIA in time to ensure that the new projected Commercial Operation Date for the full Generating Facility Capacity of the Large Generating Facility is no more than three (3) years from the Commercial Operation Date identified in Appendix B hereto, this LGIA shall be deemed terminated and the Interconnection Customer's responsibility for costs will be determined in accordance with Article 2.4 of this LGIA. The suspension period shall begin on the date the suspension is requested, or the date of the written notice to the Participating TO and the CAISO, if no effective date is specified.

5.17 Taxes.

- 5.17.1 Interconnection Customer Payments Not Taxable. The Parties intend that all payments or property transfers made by the Interconnection Customer to the Participating TO for the installation of the Participating TO's Interconnection Facilities and the Network Upgrades shall be non-taxable, either as contributions to capital, or as a refundable advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.
- 5.17.2 Representations And Covenants. In accordance with IRS Notice 2001-82 and IRS Notice 88-129, the Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the CAISO Controlled Grid, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to the Participating TO for the Participating TO's Interconnection Facilities will be capitalized by the Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Participating TO's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At the Participating TO's request, the Interconnection Customer shall provide the Participating TO with a report from an independent engineer confirming its representation in clause (iii), above. The Participating TO represents and covenants that the cost of the Participating TO's Interconnection Facilities paid for by the Interconnection Customer without the possibility of refund or credit will have no net effect on the base upon which rates are determined.

5.17.3 Indemnification for the Cost Consequence of Current Tax Liability Imposed Upon
the Participating TO. Notwithstanding Article 5.17.1, the Interconnection Customer shall
protect, indemnify and hold harmless the Participating TO from the cost consequences of
any current tax liability imposed against the Participating TO as the result of payments or
property transfers made by the Interconnection Customer to the Participating TO under
this LGIA for Interconnection Facilities, as well as any interest and penalties, other than
interest and penalties attributable to any delay caused by the Participating TO.

The Participating TO shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges the Interconnection Customer under this LGIA unless (i) the Participating TO has determined, in good faith, that the payments or property transfers made by the Interconnection Customer to the Participating TO should be reported as income subject to taxation or (ii) any Governmental Authority directs the Participating TO to report payments or property as income subject to taxation; provided, however, that the Participating TO may require the Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to the Participating TO (such as a parental guarantee or a letter of credit), in an amount equal to the cost

consequences of any current tax liability under this Article 5.17. The Interconnection Customer shall reimburse the Participating TO for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from the Participating TO of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by the Participating TO upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. The Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that the Interconnection Customer will pay the Participating TO, in addition to the amount paid for the Interconnection Facilities and Network Upgrades, an amount equal to (1) the current taxes imposed on the Participating TO ("Current Taxes") on the excess of (a) the gross income realized by the Participating TO as a result of payments or property transfers made by the Interconnection Customer to the Participating TO under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit the Participating TO to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on the Participating TO's composite federal and state tax rates at the time the payments or property transfers are received and the Participating TO will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Participating TO's anticipated tax depreciation deductions as a result of such payments or property transfers by the Participating TO's current weighted average cost of capital. Thus, the formula for calculating the Interconnection Customer's liability to the Participating TO pursuant to this Article 5.17.4 can be expressed as follows: (Current Tax Rate x (Gross Income Amount – Present Value of Tax Depreciation))/(1-Current Tax Rate). Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

<u>S.17.5 Private Letter Ruling or Change or Clarification of Law.</u> At the Interconnection Customer's request and expense, the Participating TO shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by the Interconnection Customer to the Participating TO under this LGIA are subject to federal income taxation. The Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of the Interconnection Customer's knowledge. The Participating TO and Interconnection Customer shall cooperate in good faith with respect to the submission of such request, provided, however, the Interconnection Customer and the Participating TO explicitly acknowledge

(and nothing herein is intended to alter) Participating TO's obligation under law to certify that the facts presented in the ruling request are true, correct and complete.

The Participating TO shall keep the Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes the Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. The Participating TO shall allow the Interconnection Customer to attend all meetings with IRS officials about the request and shall permit the Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

- 5.17.6 Subsequent Taxable Events. If, within 10 years from the date on which the relevant Participating TO's Interconnection Facilities are placed in service, (i) the Interconnection Customer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this LGIA terminates and the Participating TO retains ownership of the Interconnection Facilities and Network Upgrades, the Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on the Participating TO, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.
- **5.17.7 Contests.** In the event any Governmental Authority determines that the Participating TO's receipt of payments or property constitutes income that is subject to taxation, the Participating TO shall notify the Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by the Interconnection Customer and at the Interconnection Customer's sole expense, the Participating TO may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon the Interconnection Customer's written request and sole expense, the Participating TO may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. The Participating TO reserve the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but the Participating TO shall keep the Interconnection Customer informed, shall consider in good faith suggestions from the Interconnection Customer about the conduct of the contest, and shall reasonably permit the Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

The Interconnection Customer shall pay to the Participating TO on a periodic basis, as invoiced by the Participating TO, the Participating TO's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest, including any costs associated with obtaining the opinion of independent tax counsel described in this Article 5.17.7. The Participating TO may abandon any contest if the Interconnection Customer fails to provide payment to the Participating TO within thirty (30) Calendar Days of receiving such invoice.

At any time during the contest, the Participating TO may agree to a settlement either with the Interconnection Customer's consent or, if such consent is refused, after obtaining written advice from independent nationally-recognized tax counsel, selected by the

Participating TO, but reasonably acceptable to the Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. The Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by the Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding paragraph. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. The Participating TO may also settle any tax controversy without receiving the Interconnection Customer's consent or any such written advice; however, any such settlement will relieve the Interconnection Customer from any obligation to indemnify the Participating TO for the tax at issue in the contest (unless the failure to obtain written advice is attributable to the Interconnection Customer's unreasonable refusal to the appointment of independent tax counsel).

5.17.8 Refund. In the event that (a) a private letter ruling is issued to the Participating TO which holds that any amount paid or the value of any property transferred by the Interconnection Customer to the Participating TO under the terms of this LGIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to the Participating TO in good faith that any amount paid or the value of any property transferred by the Interconnection Customer to the Participating TO under the terms of this LGIA is not taxable to the Participating TO, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by the Interconnection Customer to the Participating TO are not subject to federal income tax, or (d) if the Participating TO receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by the Interconnection Customer to the Participating TO pursuant to this LGIA, the Participating TO shall promptly refund to the Interconnection Customer the following:

(i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,

(ii) interest on any amounts paid by the Interconnection Customer to the Participating TO for such taxes which the Participating TO did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date payment was made by the Interconnection Customer to the date the Participating TO refunds such payment to the Interconnection Customer, and

(iii) with respect to any such taxes paid by the Participating TO, any refund or credit the Participating TO receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Participating TO for such overpayment of taxes (including any reduction in interest otherwise payable by the Participating TO to any Governmental Authority resulting from an offset or credit); provided, however, that the Participating TO will remit such amount promptly to the Interconnection Customer only after and to the extent that the Participating TO has received a tax refund, credit or offset from any

Governmental Authority for any applicable overpayment of income tax related to the Participating TO's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

- **5.17.9** Taxes Other Than Income Taxes. Upon the timely request by the Interconnection Customer, and at the Interconnection Customer's sole expense, the CAISO or Participating TO may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the CAISO or Participating TO for which the Interconnection Customer may be required to reimburse the CAISO or Participating TO under the terms of this LGIA. The Interconnection Customer shall pay to the Participating TO on a periodic basis, as invoiced by the Participating TO, the Participating TO's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The Interconnection Customer, the CAISO, and the Participating TO shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the Interconnection Customer to the CAISO or Participating TO for such taxes until they are assessed by a final, nonappealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, the Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Participating TO.
- <u>5.18 Tax Status.</u> Each Party shall cooperate with the others to maintain the other Parties' tax status.
 Nothing in this LGIA is intended to adversely affect the CAISO's or any Participating TO's tax
 exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. The Interconnection Customer or the Participating TO may undertake modifications to its facilities, subject to the provisions of this LGIA and the CAISO Tariff. If a Party plans to undertake a modification that reasonably may be expected to affect the other Parties' facilities, that Party shall provide to the other Parties sufficient information regarding such modification so that the other Parties may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Parties at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require the Interconnection Customer to submit an Interconnection Request, the CAISO or Participating TO shall provide, within thirty (30) Calendar Days (or such other time as the

Parties may agree), an estimate of any additional modifications to the CAISO Controlled Grid, Participating TO's Interconnection Facilities, Network Upgrades or Distribution Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof. The Participating TO and the CAISO shall determine if a Large Generating Facility modification is a Material Modification in accordance with the GIDAP.

- 5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.
- 5.19.3 Modification Costs. The Interconnection Customer shall not be directly assigned the costs of any additions, modifications, or replacements that the Participating TO makes to the Participating TO's Interconnection Facilities or the Participating TO's Transmission System to facilitate the interconnection of a third party to the Participating TO's Interconnection Facilities or the Participating TO's Transmission System, or to provide transmission service to a third party under the CAISO Tariff. The Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.
- 5.19.4 Permitted Reductions in output capacity (MW generating capacity) of the

 Generating Facility. An Interconnection Customer may reduce the MW capacity of the
 Generating Facility by up to five percent (5%) for any reason, during the time period
 between the Effective Date of this LGIA and the Commercial Operation Date. The five
 percent (5%) value shall be established by reference to the MW generating capacity as
 set forth in the "Interconnection Customer's Data Form To Be Provided by the
 Interconnection Customer Prior to Commencement of the Phase II Interconnection Study"
 (Appendix B to Appendix 3 of the GIDAP).
 - The CAISO (in consultation with the applicable Participating TO(s) will consider an Interconnection Customer's request for a reduction in the MW generating capacity greater than five percent (5%) under limited conditions where the Interconnection Customer reasonably demonstrates to the Participating TO and CAISO that the MW generation capacity reduction is warranted due to reasons beyond the control of the Interconnection Customer. Reasons beyond the control of the Interconnection Customer shall consist of any one or more of the following:
 - (i) the Interconnection Customer's failure to secure required permits and other governmental approvals to construct the Generating Facility at its total MW generating capacity as specified in its Interconnection Request after the Interconnection Customer has made diligent effort to secure such permits or approvals;
 - the Interconnection Customer's receipt of a written statement from the permitting or approval authority (such as a draft environmental impact report) indicating that construction of a Generating Facility of the total MW generating capacity size specified in the Interconnection Request will likely result in disapproval due to a significant environmental or other impact that cannot be mitigated;

(iii) failure to obtain the legal right of use of the full site acreage necessary to construct and/or operate the total MW generating capacity size for the entire Generating Facility, after the Interconnection Customer has made a diligent attempt to secure such legal right of use. This subsection (iii) applies only where an Interconnection Customer has previously demonstrated and maintained its demonstration of Site Exclusivity prior to invoking this subsection as a reason for downsizing.

If relying on subsections (i) or (ii) above, in order to be eligible for a capacity reduction greater than five percent (5%), the Interconnection Customer must also demonstrate to the CAISO that a reduction of MW generating capacity of the Generating Facility to the reduced size that the Interconnection Customer proposes will likely overcome the objections of the permitting/approving authority or otherwise cause the permitting/approving authority to grant the permit or approval. The Interconnection Customer may satisfy this demonstration requirement by submitting to the CAISO either a writing from the permitting/approving authority to this effect or other evidence of a commitment by the permitting/approving authority that the MW capacity reduction will remove the objections of the authority to the permit/approval application.

If relying on subsection (iii) above, the Interconnection Customer must also reasonably demonstrate to the CAISO that the proposed reduced-capacity Generating Facility can be constructed on the site over which the Interconnection Customer has been able to obtain legal rights of use.

Upon such demonstration to the reasonable satisfaction of the CAISO (after consultation with the applicable Participating TO) the CAISO will permit such reduction. No permitted reduction of MW generation capacity under this Article shall operate to diminish the Interconnection Customer's cost responsibility for Network Upgrades or to diminish the Interconnection Customer's right to repayment for financing of Network Upgrades under this LGIA.

5.20 Annual Reassessment Process. In accordance with Section 7.4 of the GIDAP, the CAISO will perform an annual reassessment, as part of a queue cluster interconnection study cycle, in which it will update certain base case data prior to beginning the GIDAP Phase II Interconnection Studies. As set forth in Section 7.4, the CAISO may determine through this assessment that Delivery Network Upgrades already identified and included in executed generator interconnection agreements should be modified in order to reflect the current circumstances of interconnection customers in the queue, including any withdrawals therefrom, and any additions and upgrades approved in the CAISO's most recent TPP cycle. To the extent that this determination modifies the scope or characteristics of, or the cost responsibility for, any Delivery Network Upgrades set forth in Appendix A to this LGIA, such modification(s) will be reflected through an amendment to this LGIA.

Article 6. Testing and Inspection

Operation Date, the Participating TO shall test the Participating TO's Interconnection Facilities.

Network Upgrades, and Distribution Upgrades and the Interconnection Customer shall test the Large Generating Facility and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. The Interconnection Customer shall bear the cost of all such testing and modifications. The Interconnection Customer shall not commence initial parallel operation of an

Electric Generating Unit with the Participating TO's Transmission System until the Participating TO provides prior written approval, which approval shall not be unreasonably withheld, for operation of such Electric Generating Unit. The Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.

- 6.2 Post-Commercial Operation Date Testing and Modifications. Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Participating TO's Transmission System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.
- 6.3 Right to Observe Testing. Each Party shall notify the other Parties at least fourteen (14)

 Calendar Days in advance of its performance of tests of its Interconnection Facilities or

 Generating Facility. The other Parties have the right, at their own expense, to observe such testing.
- A Right to Inspect. Each Party shall have the right, but shall have no obligation to: (i) observe another Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of another Party's System Protection Facilities and other protective equipment; and (iii) review another Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

Article 7. Metering

- Reliability Council requirements. The Interconnection Customer and CAISO shall comply with the provisions of the CAISO Tariff regarding metering, including Section 10 of the CAISO Tariff.

 Unless otherwise agreed by the Participating TO and the Interconnection Customer, the Participating TO may install additional Metering Equipment at the Point of Interconnection prior to any operation of any Electric Generating Unit and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at the CAISO's or Participating TO's option for its respective Metering Equipment, compensated to, the Point of Interconnection. The CAISO shall provide metering quantities to the Interconnection Customer upon request in accordance with the CAISO Tariff by directly polling the CAISO's meter data acquisition system. The Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.
- 7.2 Check Meters. The Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check the CAISO-polled meters or the Participating TO's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except in the case that no other means are available on a temporary basis at the option of the CAISO or the Participating TO. The check meters shall be subject at all reasonable times to inspection and examination by the CAISO or Participating TO or their designees. The installation, operation and maintenance thereof shall be performed entirely by the Interconnection Customer in accordance with Good Utility Practice.

7.3 Participating TO Retail Metering. The Participating TO may install retail revenue quality meters and associated equipment, pursuant to the Participating TO's applicable retail tariffs.

Article 8. Communications

- Interconnection Customer Obligations. The Interconnection Customer shall maintain 8.1 satisfactory operating communications with the CAISO in accordance with the provisions of the CAISO Tariff and with the Participating TO's dispatcher or representative designated by the Participating TO. The Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. The Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to the CAISO and Participating TO as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by the CAISO and Participating TO. Any required maintenance of such communications equipment shall be performed by the Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.
- 8.2 Remote Terminal Unit. Prior to the Initial Synchronization Date of each Electric Generating Unit, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by the Interconnection Customer, or by the Participating TO at the Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by the CAISO and by the Participating TO through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1.

Telemetry to the CAISO shall be provided in accordance with the CAISO's technical standards for direct telemetry. For telemetry to the Participating TO, the communication protocol for the data circuit(s) shall be specified by the Participating TO. Instantaneous bi-directional real power and reactive power flow and any other required information must be telemetered directly to the location(s) specified by the Participating TO.

Each Party will promptly advise the other Parties if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by another Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

8.3 No Annexation. Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

Article 9. Operations

- General. Each Party shall comply with Applicable Reliability Standards and the Applicable
 Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Balancing Authority Area Notification. At least three months before Initial Synchronization Date, the Interconnection Customer shall notify the CAISO and Participating TO in writing of the Balancing Authority Area in which the Large Generating Facility intends to be located. If the Interconnection Customer intends to locate the Large Generating Facility in a Balancing Authority Area other than the Balancing Authority Area within whose electrically metered boundaries the Large Generating Facility is located, and if permitted to do so by the relevant transmission tariffs,

all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Balancing Authority Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Balancing Authority Area.

- Quite Participating TO Obligations. The CAISO and Participating TO shall cause the Participating TO's Transmission System to be operated and controlled in a safe and reliable manner and in accordance with this LGIA. The Participating TO at the Interconnection Customer's expense shall cause the Participating TO's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. The CAISO and Participating TO may provide operating instructions to the Interconnection Customer consistent with this LGIA and Participating TO and CAISO operating protocols and procedures as they may change from time to time. The Participating TO and CAISO will consider changes to their operating protocols and procedures proposed by the Interconnection Customer.
- expense operate, maintain and control the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. The Interconnection Customer shall operate the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Balancing Authority Area of which it is part, including such requirements as set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. A Party may request that another Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA. The Interconnection Customer shall not commence Commercial Operation of an Electric Generating Unit with the Participating TO's Transmission System until the Participating TO provides prior written approval, which approval shall not be unreasonably withheld, for operation of such Electric Generating Unit.
- 9.5 Start-Up and Synchronization. Consistent with the Parties' mutually acceptable procedures, the Interconnection Customer is responsible for the proper synchronization of each Electric Generating Unit to the CAISO Controlled Grid.

9.6 Reactive Power.

- 9.6.1 Power Factor Design Criteria. For all Generating Facilities other than Asynchronous Generating Facilities, the Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the terminals of the Electric Generating Unit at a power factor within the range of 0.95 leading to 0.90 lagging, unless the CAISO has established different requirements that apply to all generators in the Balancing Authority Area on a comparable basis. For Asynchronous Generating Facilities, the Interconnection Customer shall design the Large Generating Facility to maintain power factor criteria in accordance with Appendix H of this LGIA.
- 9.6.2 Voltage Schedules. Once the Interconnection Customer has synchronized an Electric Generating Unit with the CAISO Controlled Grid, the CAISO or Participating TO shall require the Interconnection Customer to maintain a voltage schedule by operating the Electric Generating Unit to produce or absorb reactive power within the design limitations of the Electric Generating Unit set forth in Article 9.6.1 (Power Factor Design Criteria). CAISO's voltage schedules shall treat all sources of reactive power in the Balancing Authority Area in an equitable and not unduly discriminatory manner. The Participating TO shall exercise Reasonable Efforts to provide the Interconnection Customer with such schedules at least one (1) day in advance, and the CAISO or Participating TO may make changes to such schedules as necessary to maintain the reliability of the CAISO Controlled Grid or the Participating TO's electric system. The Interconnection Customer

shall operate the Electric Generating Unit to maintain the specified output voltage or power factor within the design limitations of the Electric Generating Unit set forth in Article 9.6.1 (Power Factor Design Criteria), and as may be required by the CAISO to operate the Electric Generating Unit at a specific voltage schedule within the design limitations set forth in Article 9.6.1. If the Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the CAISO and the Participating TO.

- **9.6.2.1 Governors and Regulators.** Whenever an Electric Generating Unit is operated in parallel with the CAISO Controlled Grid and the speed governors (if installed on the Electric Generating Unit pursuant to Good Utility Practice) and voltage regulators are capable of operation, the Interconnection Customer shall operate the Electric Generating Unit with its speed governors and voltage regulators in automatic operation. If the Electric Generating Unit's speed governors and voltage regulators are not capable of such automatic operation, the Interconnection Customer shall immediately notify the CAISO and the Participating TO and ensure that the Electric Generating Unit operates as specified in Article 9.6.2 through manual operation and that such Electric Generating Unit's reactive power production or absorption (measured in MVARs) are within the design capability of the Electric Generating Unit(s) and steady state stability limits. The Interconnection Customer shall restore the speed governors and voltage regulators to automatic operation as soon as possible. If the Large Generating Facility's speed governors and voltage regulators are improperly tuned or malfunctioning, the CAISO shall have the right to order the reduction in output or disconnection of the Large Generating Facility if the reliability of the CAISO Controlled Grid would be adversely affected. The Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the CAISO Controlled Grid or trip any Electric Generating Unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Balancing Authority Area on a comparable basis.
- Payment for Reactive Power. CAISO is required to pay the Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from an Electric Generating Unit when the CAISO requests the Interconnection Customer to operate its Electric Generating Unit outside the range specified in Article 9.6.1, provided that if the CAISO pays other generators for reactive power service within the specified range, it must also pay the Interconnection Customer. Payments shall be pursuant to Article 11.6 or such other agreement to which the CAISO and Interconnection Customer have otherwise agreed.

9.7 Outages and Interruptions.

9.7.1 **Outages**.

9.7.1.1 Outage Authority and Coordination. Each Party may in accordance with Good Utility Practice in coordination with the other Parties remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact another Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to all Parties. In all circumstances any Party planning to remove such facility(ies) from

service shall use Reasonable Efforts to minimize the effect on the other Parties of such removal.

- 9.7.1.2 Outage Schedules. The CAISO shall post scheduled outages of CAISO Controlled Grid facilities in accordance with the provisions of the CAISO Tariff. The Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to the CAISO in accordance with the CAISO Tariff. The Interconnection Customer shall update its planned maintenance schedules in accordance with the CAISO Tariff. The CAISO may request the Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the CAISO Controlled Grid in accordance with the CAISO Tariff. Such planned maintenance schedules and updates and changes to such schedules shall be provided by the Interconnection Customer to the Participating TO concurrently with their submittal to the CAISO. The CAISO shall compensate the Interconnection Customer for any additional direct costs that the Interconnection Customer incurs as a result of having to reschedule maintenance in accordance with the CAISO Tariff. The Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, the Interconnection Customer had modified its schedule of maintenance activities.
- 9.7.1.3 Outage Restoration. If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects another Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Parties, to the extent such information is known, information on the nature of the Emergency Condition, if the outage is caused by an Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage, if requested by a Party, which may be provided by e-mail or facsimile.
- 9.7.2 Interruption of Service. If required by Good Utility Practice to do so, the CAISO or the Participating TO may require the Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect the CAISO's or the Participating TO's ability to perform such activities as are necessary to safely and reliably operate and maintain the Participating TO's electric system or the CAISO Controlled Grid. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:
 - **9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;
 - 9.7.2.2 Any such interruption or reduction shall be made on an equitable, nondiscriminatory basis with respect to all generating facilities directly connected to the CAISO Controlled Grid, subject to any conditions specified in this LGIA;
 - 9.7.2.3 When the interruption or reduction must be made under circumstances which do not allow for advance notice, the CAISO or Participating TO, as applicable, shall notify the Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification, if requested by the Interconnection Customer, as soon as practicable;

- 9.7.2.4 Except during the existence of an Emergency Condition, the CAISO or Participating TO shall notify the Interconnection Customer in advance regarding the timing of such interruption or reduction and further notify the Interconnection Customer of the expected duration. The CAISO or Participating TO shall coordinate with the Interconnection Customer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to the Interconnection Customer, the CAISO, and the Participating TO;
- 9.7.2.5 The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, the Participating TO's Transmission System, and the CAISO Controlled Grid to their normal operating state, consistent with system conditions and Good Utility Practice.
- 9.7.3 Under-Frequency and Over Frequency Conditions. The CAISO Controlled Grid is designed to automatically activate a load-shed program as required by Applicable Reliability Standards and the Applicable Reliability Council in the event of an under-frequency system disturbance. The Interconnection Customer shall implement under-frequency and over-frequency protection set points for the Large Generating Facility as required by Applicable Reliability Standards and the Applicable Reliability Council to ensure "ride through" capability. Large Generating Facility response to frequency deviations of pre-determined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with the Participating TO and CAISO in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the CAISO Controlled Grid during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice. . Asynchronous Generating Facilities shall be subject to frequency ride through capability requirements in accordance with Appendix H to this LGIA.

9.7.4 System Protection and Other Control Requirements.

- 9.7.4.1 System Protection Facilities. The Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Participating TO shall install at the Interconnection Customer's expense any System Protection Facilities that may be required on the Participating TO's Interconnection Facilities or the Participating TO's Transmission System as a result of the interconnection of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities.
- 9.7.4.2 The Participating TO's and Interconnection Customer's protection facilities shall be designed and coordinated with other systems in accordance with Applicable Reliability Standards, Applicable Reliability Council criteria, and Good Utility Practice.
- **9.7.4.3** The Participating TO and Interconnection Customer shall each be responsible for protection of its facilities consistent with Good Utility Practice.
- 9.7.4.4 The Participating TO's and Interconnection Customer's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and

- causing unnecessary breaker operations and/or the tripping of the Interconnection Customer's Electric Generating Units.
- 9.7.4.5 The Participating TO and Interconnection Customer will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice and, if applicable, the requirements of the Participating TO's Interconnection Handbook.
- 9.7.4.6 Prior to the in-service date, and again prior to the Commercial Operation Date, the Participating TO and Interconnection Customer or their agents shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice, the standards and procedures of the Participating TO, including, if applicable, the requirements of the Participating TO's Interconnection Handbook, and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.
- Requirements for Protection. In compliance with Good Utility Practice and, if applicable, the requirements of the Participating TO's Interconnection Handbook, the Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Participating TO's Transmission System not otherwise isolated by the Participating TO's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Participating TO's Transmission System. Such protective equipment shall include, without limitation, a disconnecting device with fault current-interrupting capability located between the Large Generating Facility and the Participating TO's Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. The Interconnection Customer shall be responsible for protection of the Large Generating Facility and the Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. The Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and the Interconnection Customer's other equipment if conditions on the CAISO Controlled Grid could adversely affect the Large Generating Facility.
- 9.7.6 Power Quality. Neither the Participating TO's nor the Interconnection Customer's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, any applicable superseding electric industry standard, or any alternative Applicable Reliability Standard or Applicable Reliability Council standard. In the event of a conflict among ANSI Standard C84.1-1989, any applicable superseding electric industry standard, or any alternative Applicable Reliability Standard or Applicable Reliability Council standard, the alternative Applicable Reliability Standard or Applicable Reliability Council standard shall control.
- 9.8 Switching and Tagging Rules. Each Party shall provide the other Parties a copy of its switching and tagging rules that are applicable to the other Parties' activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.
- 9.9 Use of Interconnection Facilities by Third Parties.

- 9.9.1 Purpose of Interconnection Facilities. Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Participating TO's Transmission System and shall be used for no other purpose.
- Third Party Users. If required by Applicable Laws and Regulations or if the Parties 9.9.2 mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Participating TO's Interconnection Facilities, or any part thereof, the Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by the Participating TO, all third party users, and the Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between the Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by the Participating TO, all third party users, and the Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.
- 9.10 Disturbance Analysis Data Exchange. The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or the CAISO Controlled Grid by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

Article 10. Maintenance

- 10.1 Participating TO Obligations. The Participating TO shall maintain the Participating TO's Transmission System and the Participating TO's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- 10.2 Interconnection Customer Obligations. The Interconnection Customer shall maintain the Large Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- 10.3 Coordination. The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.
- 10.4 Secondary Systems. The Participating TO and Interconnection Customer shall cooperate with the other Parties in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Parties. Each Party shall provide advance notice to the other Parties before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.
- 10.5 Operating and Maintenance Expenses. Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such

third party pays for such expenses, the Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing the Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of the Participating TO's Interconnection Facilities.

Article 11. Performance Obligation

- 11.1 Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A at its sole expense.
- Participating TO's Interconnection Facilities. The Participating TO shall design, procure, construct, install, own and/or control the Participating TO's Interconnection Facilities described in Appendix A at the sole expense of the Interconnection Customer. Unless the Participating TO elects to fund the capital for the Participating TO's Interconnection Facilities, they shall be solely funded by the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades. The Participating TO shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, except for Stand Alone Network Upgrades, which will be constructed, and if agreed to by the Parties owned by the Interconnection Customer, and Merchant Network Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Network Upgrades shall be funded by the Interconnection Customer, which for Interconnection Customers processed under Section 6 of the GIDAP (in queue clusters) shall be in an amount determined pursuant to the methodology set forth in Section 6.3 of the GIDAP. This specific amount is set forth in Appendix G to this LGIA. For costs associated with Area Delivery Network Upgrades, any amounts set forth in Appendix G will be advisory estimates only, and will not operate to establishing any cap or maximum cost responsibility limit on the cost responsibility of the Interconnection Customer for Area Delivery Network Upgrades.
- 11.4 Transmission Credits. No later than thirty (30) Calendar Days prior to the Commercial

 Operation Date, the Interconnection Customer may make a one-time election by written notice to the CAISO and the Participating TO to receive Congestion Revenue Rights as defined in and as available under the CAISO Tariff at the time of the election in accordance with the CAISO Tariff, in lieu of a repayment of the cost of Network Upgrades in accordance with Article 11.4.1.
 - 11.4.1 Repayment of Amounts Advanced for Network Upgrades.

11.4.1.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

Upon the Commercial Operation Date of a Generating Facility that is not a Phased Generating Facility, and the in-service date of the corresponding Network Upgrades, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades as follows:

(a) For Reliability Network Upgrades, the Interconnection Customer shall be entitled to a repayment of the Interconnection Customer's assigned cost responsibility for Reliability Network Upgrades as set forth in Appendix G, up to a maximum of \$60,000 per MW of generating capacity. For purposes of this determination, generating capacity will be based on the capacity of the Interconnection Customer's Generating Facility at the time it achieves Commercial Operation. To the extent that such repayment does not cover all of the costs of Interconnection Customer's Reliability Network Upgrades, the Interconnection Customer shall receive CRRs for that portion of its Reliability Network Upgrades that are not covered by cash repayment.

(b) For Local Delivery Network Upgrades:

- i. If the Interconnection Customer is an Option (B) Interconnection
 Customer and has been allocated and continues to be eligible to receive
 TP Deliverability pursuant to the GIDAP, the Interconnection Customer
 shall be entitled to repayment of a portion of the total amount paid to the
 Participating TO for the costs of Local Delivery Network Upgrades for
 which it is responsible, as set forth in Appendix G, The repayment
 amount shall be determined by dividing the amount of TP deliverability
 received by the amount of deliverability requested by the Interconnection
 Customer, and multiplying that percentage by the total amount paid to
 the Participating TO by the Interconnection Customer for Local Delivery
 Network Upgrades
- ii. If the Generating Facility is an Option (B) Generating Facility and has not been allocated any TP Deliverability, the Interconnection Customer shall not be entitled to repayment for the costs of Local Delivery Network Upgrades.
- iii. If the Generating Facility is an Option (A) Generating Facility, , the

 Interconnection Customer shall be entitled to a repayment equal to the
 total amount paid to the Participating TO for the costs of Local Delivery
 Network Upgrades for which it is responsible, as set forth in Appendix G.
- (c) For Area Delivery Network Upgrades, the Interconnection Customer shall not be entitled to repayment for the costs of Area Delivery Network Upgrades.
- (d) If an Interconnection Customer having a Option (B) Generating Facility, and is eligible, to construct and own Network Upgrades pursuant to the Merchant Option set forth in Article 5.15 of this LGIA, then the Interconnection Customer shall not be entitled to any repayment pursuant to this LGIA.

Such repayment amount shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer pursuant to Article 5.17.8 or otherwise, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this LGIA terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

11.4.1.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment equal to the Interconnection Customer's contribution to the cost of Network Upgrades for that completed phase for which the Interconnection Customer is responsible, as set forth in Appendix G, subject to the limitations specified in Article 11.4.1.1, if all of the following conditions are satisfied:

(a) The Generating Facility is capable of being constructed in phases;

- (b) The Generating Facility is specified in the LGIA as being constructed in phases;
- (c) The completed phase corresponds to one of the phases specified in the LGIA;
- (d) The phase has achieved Commercial Operation and the Interconnection Customer has tendered notice of the same pursuant to this LGIA;
- (e) All parties to the LGIA have confirmed that the completed phase meets the requirements set forth in this LGIA and any other operating, metering, and interconnection requirements to permit generation output of the entire capacity of the completed phase as specified in this LGIA;
- (f) The Network Upgrades necessary for the completed phase to meet the desired level of deliverability are in service; and
- (g) The Interconnection Customer has posted one hundred (100) percent of the Interconnection Financial Security required for the Network Upgrades for all the phases of the Generating Facility (or if less than one hundred (100) percent has been posted, then all required Financial Security Instruments to the date of commencement of repayment).

Upon satisfaction of these conditions (a) through (g), the Interconnection Customer shall be entitled to receive a partial repayment of its financed cost responsibility, to the extent that it is otherwise eligible for such repayment per Article 11.4.1.1, in an amount equal to the percentage of the Generating Facility declared to be in Commercial Operation multiplied by the cost of the Network Upgrades associated with the completed phase. The Interconnection Customer shall be entitled to repayment in this manner for each completed phase until the entire Generating Facility is completed.

A reduction in the electrical output (MW capacity) of the Generating Facility pursuant to LGIA Article 5.19.4 shall not diminish the Interconnection Customer's right to repayment pursuant to this LGIA Article 11.4.1. If the LGIA includes a partial termination provision and the partial termination right has been exercised with regard to a phase that has not been built, then the Interconnection Customer's eligibility for repayment under this Article as to the remaining phases shall not be diminished. If the Interconnection Customer completes one or more phases and then breaches the LGIA, the Participating TO and the CAISO shall be entitled to offset any losses or damages resulting from the breach against any repayments made for Network Upgrades related to the completed phases.

Any repayment amount for completion of a phase shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer pursuant to Article 5.17.8 or otherwise, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the date b which the requirements of items (a) through (g) have been fulfilled; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this LGIA terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

11.4.1.3. Interest Payments and Assignment Rights

Any phased or non-phased repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. Interest shall continue to accrue on the repayment obligation so long as this LGIA is in effect. The Interconnection Customer may assign such repayment rights to any person.

11.4.1.4 Failure to Achieve Commercial Operation

If the Large Generating Facility fails to achieve Commercial Operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, the Participating TO shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying and demonstrating to the Participating TO the appropriate entity to which reimbursement must be made in order to implement the intent of this reimbursement obligation.

- into an agreement with the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid, as applicable, in accordance with the GIDAP. Such agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid as well as the repayment by the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid. In no event shall the Participating TO be responsible for the repayment for any facilities that are not part of the Participating TO's Transmission System. In the event the Participating TO is a joint owner with an Affected System or with any other co-owner of a facility affected by the Large Generating Facility, the Participating TO's obligation to reimburse the Interconnection Customer for payments made to address the impacts of the Large Generating Facility on the system shall not exceed the proportionate amount of the cost of any upgrades attributable to the proportion of the jointly-owned facility owned by the Participating TO.
- 11.4.3 Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, Congestion Revenue Rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements, merchant transmission Congestion Revenue Rights in accordance with Section 36.11 of the CAISO Tariff, or transmission credits for transmission service that is not associated with the Large Generating Facility.
- Provision of Interconnection Financial Security. The Interconnection Customer is obligated to provide all necessary Interconnection Financial Security required under Section 11 of the GIDAP in a manner acceptable under Section 11 of the GIDAP. Failure by the Interconnection Customer to timely satisfy the GIDAP's requirements for the provision of Interconnection Financial Security shall be deemed a breach of this Agreement and a condition of Default of this Agreement.
 - 11.5.1 Notwithstanding any other provision of this Agreement for notice of Default and opportunity to cure such Default, the CAISO or the Participating TO shall provide the Interconnection Customer with written notice of any Default due to timely failure to post Financial Security, and the Interconnection Customer shall have five (5) Business Days

from the date of such notice to cure such Default by posting the required Financial Security. If the Interconnection Customer fails to cure the Default, then this Agreement shall be deemed terminated.

- Interconnection Customer Compensation. If the CAISO requests or directs the Interconnection Customer to provide a service pursuant to Articles 9.6.3 (Payment for Reactive Power) or 13.5.1 of this LGIA, the CAISO shall compensate the Interconnection Customer in accordance with the CAISO Tariff.
 - 11.6.1 Interconnection Customer Compensation for Actions During Emergency

 Condition. The CAISO shall compensate the Interconnection Customer in accordance with the CAISO Tariff for its provision of real and reactive power and other Emergency Condition services that the Interconnection Customer provides to support the CAISO Controlled Grid during an Emergency Condition in accordance with Article 11.6.

Article 12. Invoice

- 12.1 General. The Participating TO shall submit to the Interconnection Customer, on a monthly basis, invoices of amounts due pursuant to this LGIA for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party. Notwithstanding the foregoing, any invoices between the CAISO and another Party shall be submitted and paid in accordance with the CAISO Tariff.
- Final Invoice. As soon as reasonably practicable, but within twelve months after completion of 12.2 the construction of the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, the Participating TO shall provide an invoice of the final cost of the construction of the Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades, and shall set forth such costs in sufficient detail to enable the Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. With respect to costs associated with the Participating TO's Interconnection Facilities and Distribution Upgrades, the Participating TO shall refund to the Interconnection Customer any amount by which the actual payment by the Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice; or, in the event the actual costs of construction exceed the Interconnection Customer's actual payment for estimated costs, then the Interconnection Customer shall pay to the Participating TO any amount by which the actual costs of construction exceed the actual payment by the Interconnection Customer for estimated costs within thirty (30) Calendar Days of the issuance of such final construction invoice. With respect to costs associated with Network Upgrades, the Participating TO shall refund to the Interconnection Customer any amount by which the actual payment by the Interconnection Customer for estimated costs exceeds the actual costs of construction multiplied by the Interconnection Customer's percentage share of those costs, as set forth in Appendix G to this LGIA within thirty (30) Calendar Days of the issuance of such final construction invoice. In the event the actual costs of construction multiplied by the Interconnection Customer's percentage share of those costs exceed the Interconnection Customer's actual payment for estimated costs, then the Participating TO shall recover such difference through its transmission service rates.
- Payment. Invoices shall be rendered to the Interconnection Customer at the address specified in Appendix F. The Interconnection Customer shall pay, or Participating TO shall refund, the amounts due within thirty (30) Calendar Days of the Interconnection Customer's receipt of the invoice. All payments shall be made in immediately available funds payable to the

Interconnection Customer or Participating TO, or by wire transfer to a bank named and account designated by the invoicing Interconnection Customer or Participating TO. Payment of invoices by any Party will not constitute a waiver of any rights or claims any Party may have under this LGIA.

Participating TO, the Participating TO and the CAISO shall continue to provide Interconnection
Service under this LGIA as long as the Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to the Participating TO or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the Interconnection Customer fails to meet these two requirements for continuation of service, then the Participating TO may provide notice to the Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accordance with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Notwithstanding the foregoing, any billing dispute between the CAISO and another Party shall be resolved in accordance with the provisions of Article 27 of this LGIA.

Article 13. Emergencies

13.1 [Reserved]

- 13.2 Obligations. Each Party shall comply with the Emergency Condition procedures of the CAISO, NERC, the Applicable Reliability Council, Applicable Reliability Standards, Applicable Laws and Regulations, and any emergency procedures set forth in this LGIA.
- Notice. The Participating TO or the CAISO shall notify the Interconnection Customer promptly 13.3 when it becomes aware of an Emergency Condition that affects the Participating TO's Interconnection Facilities or Distribution System or the CAISO Controlled Grid, respectively, that may reasonably be expected to affect the Interconnection Customer's operation of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall notify the Participating TO and the CAISO promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the CAISO Controlled Grid or the Participating TO's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Interconnection Customer's or Participating TO's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice, if requested by a Party, which may be provided by electronic mail or facsimile, or in the case of the CAISO may be publicly posted on the CAISO's internet web site.
- 13.4 Immediate Action. Unless, in the Interconnection Customer's reasonable judgment, immediate action is required, the Interconnection Customer shall obtain the consent of the CAISO and the Participating TO, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition declared by the Participating TO or CAISO or in response to any other emergency condition.

13.5 CAISO and Participating TO Authority.

13.5.1 General. The CAISO and Participating TO may take whatever actions or inactions, including issuance of dispatch instructions, with regard to the CAISO Controlled Grid or the Participating TO's Interconnection Facilities or Distribution System they deem necessary during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the CAISO Controlled Grid or the Participating TO's

Interconnection Facilities or Distribution System, and (iii) limit or prevent damage, and (iv) expedite restoration of service.

The Participating TO and the CAISO shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or the Interconnection Customer's Interconnection Facilities. The Participating TO or the CAISO may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing the Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing the Interconnection Customer to assist with black start (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of the CAISO's and Participating TO's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

- 13.5.2 Reduction and Disconnection. The Participating TO or the CAISO may reduce Interconnection Service or disconnect the Large Generating Facility or the Interconnection Customer's Interconnection Facilities when such reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of the CAISO pursuant to the CAISO Tariff. When the CAISO or Participating TO can schedule the reduction or disconnection in advance, the CAISO or Participating TO shall notify the Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. The CAISO or Participating TO shall coordinate with the Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to the Interconnection Customer and the CAISO and Participating TO. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the CAISO Controlled Grid to their normal operating state as soon as practicable consistent with Good Utility Practice.
- 13.6 Interconnection Customer Authority. Consistent with Good Utility Practice, this LGIA, and the CAISO Tariff, the Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or the Interconnection Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the CAISO Controlled Grid and the Participating TO's Interconnection Facilities. The CAISO and Participating TO shall use Reasonable Efforts to assist Interconnection Customer in such actions.
- 13.7 Limited Liability. Except as otherwise provided in Article 11.6.1 of this LGIA, no Party shall be liable to any other Party for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

Article 14. Regulatory Requirements and Governing Laws

14.1 Regulatory Requirements. Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings

with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require the Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978, or the Energy Policy Act of 2005.

14.2 Governing Law.

- 14.2.1 The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- **14.2.2** This LGIA is subject to all Applicable Laws and Regulations.
- **14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

Article 15. Notices

General. Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by a Party to another and any instrument required or permitted to be tendered or delivered by a Party in writing to another shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

A Party must update the information in Appendix F as information changes. A Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change. Such changes shall not constitute an amendment to this LGIA.

- **15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.
- 15.3 Alternative Forms of Notice. Any notice or request required or permitted to be given by a Party to another and not required by this LGIA to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out in Appendix F.
- Operations and Maintenance Notice. Each Party shall notify the other Parties in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

Article 16. Force Majeure

16.1 Force Majeure.

- **16.1.1** Economic hardship is not considered a Force Majeure event.
- 16.1.2 No Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full

particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

Article 17. Default

17.1 Default.

- 17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this LGIA or the result of an act or omission of the other Party. Upon a Breach, the affected non-Breaching Party(ies) shall give written notice of such Breach to the Breaching Party. Except as provided in Articles 11.5.1 and 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.
- 17.1.2 Right to Terminate. If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the affected non-Breaching Party(ies) shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not such Party(ies) terminates this LGIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this LGIA.

Article 18. Indemnity, Consequential Damages, and Insurance

- Indemnity. Each Party shall at all times indemnify, defend, and hold the other Parties harmless from, any and all Losses arising out of or resulting from another Party's action or inactions of its obligations under this LGIA on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.
 - 18.1.1 Indemnified Party. If an Indemnified Party is entitled to indemnification under this Article

 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
 - 18.1.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 18, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.
 - 18.1.3 Indemnity Procedures. Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed.

- 18.2 Consequential Damages. Other than the liquidated damages heretofore described in Article 5.3, in no event shall any Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.
- Insurance. As indicated below, the designated Party shall, at its own expense, maintain in force throughout the periods noted in this LGIA, and until released by the other Parties, the following minimum insurance coverages, with insurers rated no less than A- (with a minimum size rating of VII) by Bests' Insurance Guide and Key Ratings and authorized to do business in the state where the Point of Interconnection is located, except in the case of any insurance required to be carried by the CAISO, the State of California:
 - 18.3.1 Employer's Liability and Workers' Compensation Insurance. The Participating TO and the Interconnection Customer shall maintain such coverage from the commencement of any Construction Activities providing statutory benefits for workers compensation coverage and coverage amounts of no less than One Million Dollars (\$1,000,000) for employer's liability in accordance with the laws and regulations of the state in which the Point of Interconnection is located. The Participating TO shall provide the Interconnection Customer with evidence of such insurance within thirty (30) days of any request by the Interconnection Customer. The Interconnection Customer shall provide evidence of such insurance thirty (30) days prior to entry by any employee or contractor or other person acting on the Interconnection Customer's behalf onto any construction site to perform any work related to the Interconnection Facilities or Generating Facility.
 - 18.3.2 Commercial General Liability Insurance. The Participating TO and the Interconnection Customer shall maintain commercial general liability insurance commencing within thirty (30) days of the effective date of this LGIA, including

premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification), products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage. If the activities of the Interconnection Customer are being conducted through the actions of an Affiliate, then the Interconnection Customer may satisfy the insurance requirements of this Section 18.3.2 by providing evidence of insurance coverage carried by such Affiliate and showing the Participating TO as an additional insured, together with the Interconnection Customer's written representation to the Participating TO and the CAISO that the insured Affiliate is conducting all of the necessary preconstruction work. Within thirty (30) days prior to the entry of any person on behalf of the Interconnection Customer onto any construction site to perform work related to the Interconnection Facilities or Generating Facility, the Interconnection Customer shall replace any evidence of Affiliate Insurance with evidence of such insurance carried by the Interconnection Customer, naming the Participating TO as additional insured.

- 18.3.3 Business Automobile Liability Insurance. Prior to the entry of any such vehicles on any construction site in connection with work done by or on behalf of the Interconnection Customer, the Interconnection Customer shall provide evidence of coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage. Upon the request of the Participating TO, the Interconnection Customer shall name the Participating TO as an additional insured on any such policies.
- 18.3.4 Excess Public Liability Insurance. Commencing at the time of entry of any person on its behalf upon any construction site for the Network Upgrades, Interconnection Facilities, or Generating Facility, the Participating TO and the Interconnection Customer shall maintain excess public liability insurance over and above the Employer's Liability Commercial General Liability and Business Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate. Such insurance carried by the Participating TO shall name the Interconnection Customer as an additional insured, and such insurance carried by the Interconnection Customer shall name the Participating TO as an additional insured.
- 18.3.5 The Commercial General Liability Insurance, Business Automobile Insurance and Excess Public Liability Insurance policies shall name the other Parties identified in the sections above, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group of cancellation in coverage or condition. If any Party can reasonably demonstrate that coverage policies containing provisions for insurer waiver of subrogation rights, or advance written notice are not commercially available, then the Parties shall meet and confer and mutually determine to (i) establish replacement or equivalent terms in lieu of subrogation or notice or (ii) waive the requirements that coverage(s) include such subrogation provision or require advance written notice from such insurers.

- The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.
- 18.3.7 The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.
- 18.3.8 The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.
- 18.3.9 Within ten (10) Calendar Days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.
- **18.3.10** Notwithstanding the foregoing, each Party may self-insure
 - a) to meet the insurance requirements of Article 18.3.1, to the extent that it maintains a self-insurance program that is a qualified self insurer within the state in which the Point of Interconnection is located, under the laws and regulations of such state; and
- b) to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior unsecured debt or issuer rating is BBB-, or better, as rated by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior unsecured debt rating and issuer rating are both unrated by Standard & Poor's or are both rated at less than BBB- by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9.
 - c) In the event that a Party is permitted to self-insure pursuant to this Article 18.3.10, it shall notify the other Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.
- 18.3.11 The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.

Article 19. Assignment

19.1 Assignment. This LGIA may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this LGIA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that the Interconnection Customer shall have the right to assign this LGIA,

without the consent of the CAISO or Participating TO, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will promptly notify the CAISO and Participating TO of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the CAISO and Participating TO of the date and particulars of any such exercise of assignment right(s), including providing the CAISO and Participating TO with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

Article 20. Severability

20.1 Severability. If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if the Interconnection Customer (or any third party, but only if such third party is not acting at the direction of the Participating TO or CAISO) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of the provisions of Article 5.1.2 or 5.1.4 shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

Article 21. Comparability

21.1 Comparability. The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

Article 22. Confidentiality

22.1 Confidentiality. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by any of the Parties to the other Parties prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Parties receiving the information that the information is confidential.

If requested by any Party, the other Parties shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

- 22.1.1 Term. During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.
- 22.1.2 Scope. Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the

receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of this LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

- 22.1.3 Release of Confidential Information. No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by the Standards of Conduct requirements set forth in Part 358 of FERC's Regulations, 18 C.F.R. 358), subcontractors, or to parties who may be or considering providing financing to or equity participation with the Interconnection Customer, or to potential purchasers or assignees of the Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.
- 22.1.4 Rights. Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Parties. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- 22.1.5 No Warranties. The mere fact that a Party has provided Confidential Information does not constitute a warranty or representation as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.
- 22.1.6 Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under this LGIA or its regulatory requirements.
- 22.1.7 Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.
- 22.1.8 Termination of Agreement. Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from another Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without

retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

- 22.1.9 Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.
- 22.1.10 Disclosure to FERC, its Staff, or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Parties to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.
- 22.1.11 Subject to the exception in Article 22.1.10, Confidential Information shall not be disclosed by the other Parties to any person not employed or retained by the other Parties, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Parties, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Balancing Authority including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Parties in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

Article 23. Environmental Releases

Each Party shall notify the other Parties, first orally and then in writing, of the release of any
 Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation
 activities related to the Large Generating Facility or the Interconnection Facilities, each of which

may reasonably be expected to affect the other Parties. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

Article 24. Information Requirements

- **24.1** Information Acquisition. The Participating TO and the Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Participating TO. The initial information submission by the Participating TO shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include the Participating TO's Transmission System information necessary to allow the Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Participating TO and the Interconnection Customer. On a monthly basis the Participating TO shall provide the Interconnection Customer and the CAISO a status report on the construction and installation of the Participating TO's Interconnection Facilities and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer. The updated information submission by the Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. The Interconnection Customer shall submit a completed copy of the Electric Generating Unit data requirements contained in Appendix 1 to the GIDAP. It shall also include any additional information provided to the Participating TO and the CAISO for the Interconnection Studies. Information in this submission shall be the most current Electric Generating Unit design or expected performance data. Information submitted for stability models shall be compatible with the Participating TO and CAISO standard models. If there is no compatible model, the Interconnection Customer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.
 - If the Interconnection Customer's data is materially different from what was originally provided to the Participating TO and the CAISO for the Interconnection Studies, then the Participating TO and the CAISO will conduct appropriate studies pursuant to the GIDAP to determine the impact on the Participating TO's Transmission System and affected portions of the CAISO Controlled Grid based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed and all other requirements of this LGIA are satisfied.
- 24.4 Information Supplementation. Prior to the Trial Operation date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Electric Generating Unit information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Electric Generating Unit as required by Good Utility Practice such as an open circuit "step voltage" test on the Electric Generating Unit to verify proper operation of the Electric Generating Unit's automatic voltage regulator.

<u>Unless otherwise agreed, the test conditions shall include: (1) Electric Generating Unit at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent (5 percent) change in Electric Generating Unit terminal voltage initiated by a change in the voltage regulators reference voltage. The Interconnection Customer shall provide validated</u>

test recordings showing the responses of Electric Generating Unit terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Electric Generating Unit's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Electric Generating Unit terminal or field voltages is provided. Electric Generating Unit testing shall be conducted and results provided to the Participating TO and the CAISO for each individual Electric Generating Unit in a station.

Subsequent to the Commercial Operation Date, the Interconnection Customer shall provide the Participating TO and the CAISO any information changes due to equipment replacement, repair, or adjustment. The Participating TO shall provide the Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Participating TO-owned substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information pursuant to Article 5.19.

Article 25. Information Access and Audit Rights

- 25.1 Information Access. Each Party (the "disclosing Party") shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA. Nothing in this Article 25 shall obligate the CAISO to make available to a Party any third party information in its possession or control if making such third party information available would violate a CAISO Tariff restriction on the use or disclosure of such third party information.
- 25.2 Reporting of Non-Force Majeure Events. Each Party (the "notifying Party") shall notify the other Parties when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.
- 25.3 Audit Rights. Subject to the requirements of confidentiality under Article 22 of this LGIA, the Parties' audit rights shall include audits of a Party's costs pertaining to such Party's performance or satisfaction of obligations owed to the other Party under this LGIA, calculation of invoiced amounts, the CAISO's efforts to allocate responsibility for the provision of reactive support to the CAISO Controlled Grid, the CAISO's efforts to allocate responsibility for interruption or reduction of generation on the CAISO Controlled Grid, and each such Party's actions in an Emergency Condition.
 - 25.3.1 The Interconnection Customer and the Participating TO shall each have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts and records pertaining to either such Party's performance or either such Party's satisfaction of obligations owed to the other Party under this LGIA. Subject to Article 25.3.2, any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each such Party's performance and satisfaction of obligations under this LGIA. Each such Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.3.2 Notwithstanding anything to the contrary in Article 25.3, each Party's rights to audit the CAISO's accounts and records shall be as set forth in Section 22.1 of the CAISO Tariff.

25.4 Audit Rights Periods.

- 25.4.1 Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Participating TO's Interconnection Facilities, Network Upgrades, and Distribution Upgrades constructed by the Participating TO shall be subject to audit for a period of twenty-four months following the Participating TO's issuance of a final invoice in accordance with Article 12.2. Accounts and records related to the design, engineering, procurement, and construction of Participating TO's Interconnection Facilities and/or Stand Alone Network Upgrades constructed by the Interconnection Customer shall be subject to audit and verification by the Participating TO and the CAISO for a period of twenty-four months following the Interconnection Customer's issuance of a final invoice in accordance with Article 5.2(8).
- 25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to a Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought; provided that each Party's rights to audit the CAISO's accounts and records shall be as set forth in Section 22.1 of the CAISO Tariff.
- 25.5 Audit Results. If an audit by the Interconnection Customer or the Participating TO determines that an overpayment or an underpayment has occurred with respect to the other Party, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which supports such determination. The Party that is owed payment shall render an invoice to the other Party and such invoice shall be paid pursuant to Article 12 hereof.
 - 25.5.1 Notwithstanding anything to the contrary in Article 25.5, the Interconnection Customer's and Participating TO's rights to audit the CAISO's accounts and records shall be as set forth in Section 22.1 of the CAISO Tariff, and the CAISO's process for remedying an overpayment or underpayment shall be as set forth in the CAISO Tariff.

Article 26. Subcontractors

- 26.1 General. Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the CAISO or Participating TO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

26.3 No Limitation by Insurance. The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27. Disputes

All disputes arising out of or in connection with this LGIA whereby relief is sought by or from the CAISO shall be settled in accordance with the provisions of Article 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Article 13 of the CAISO Tariff shall be read as references to this LGIA.

Disputes arising out of or in connection with this LGIA not subject to provisions of Article 13 of the CAISO Tariff shall be resolved as follows:

- 27.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.
- External Arbitration Procedures. Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.
- 27.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator(s) must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.
- 27.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

Article 28. Representations, Warranties and Covenants

- **28.1 General.** Each Party makes the following representations, warranties and covenants:
 - 28.1.1 Good Standing. Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.
 - Authority. Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).
 - 28.1.3 No Conflict. The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.
 - 28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

Article 29. [Reserved]

Article 30. Miscellaneous

- **30.1 Binding Effect.** This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 30.2 Conflicts. In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.
- and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to

- this LGIA, or such Section to the GIDAP or such Appendix to the GIDAP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 20.4 Entire Agreement. This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between or among the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this LGIA.
- 30.5 No Third Party Beneficiaries. This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 30.6 Waiver. The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
 - Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this LGIA. Termination or Default of this LGIA for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO. Any waiver of this LGIA shall, if requested, be provided in writing.
- 30.7 Headings. The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.
- **30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 30.9 Amendment. The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.
- 30.10 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.
- 30.11 Reservation of Rights. The CAISO and Participating TO shall each have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles and Appendices of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles and Appendices:

Recitals, 1, 2.1, 2.2, 2.3, 2.4, 2.6, 3.1, 3.3, 4.1, 4.2, 4.3, 4.4, 5 preamble, 5.4, 5.7, 5.8, 5.9, 5.12, 5.13, 5.18, 5.19.1, 7.1, 7.2, 8, 9.1, 9.2, 9.3, 9.5, 9.6, 9.7, 9.8, 9.10, 10.3, 11.4, 12.1, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.3, 24.4, 25.1, 25.2, 25.3 (excluding

subparts), 25.4.2, 26, 28, 29, 30, Appendix D, Appendix F, Appendix G, and any other Article not reserved exclusively to the Participating TO or the CAISO below.

The Participating TO shall have the exclusive right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles and Appendices of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles and Appendices:

2.5, 5.1, 5.2, 5.3, 5.5, 5.6, 5.10, 5.11, 5.14, 5.15, 5.16, 5.17, 5.19 (excluding 5.19.1), 6, 7.3, 9.4, 9.9, 10.1, 10.2, 10.4, 10.5, 11.1, 11.2, 11.3, 11.5, 12.2, 12.3, 12.4, 24.1, 24.2, 25.3.1, 25.4.1, 25.5 (excluding 25.5.1), 27 (excluding preamble), Appendix A, Appendix B, Appendix C, and Appendix E.

The CAISO shall have the exclusive right to make a unilateral filing with FERC to modify this LGIA pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following Articles of this LGIA and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these Articles:

3.2, 4.5, 11.6, 25.3.2, 25.5.1, and 27 preamble.

The Interconnection Customer, the CAISO, and the Participating TO shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

- 30.12 No Partnership. This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 30.13 Joint and Several Obligations. Except as otherwise provided in this LGIA, the obligations of the CAISO, the Participating TO, and the Interconnection Customer are several, and are neither joint nor joint and several.

IN WITNESS WHEREOF, the Parties have executed this LGIA in multiple originals, each of which shall constitute and be an original effective agreement among the Parties.

[Insert name of Interconnection Custor	ner]
<u>By:</u>	
Title:	
Date:	
[Insert name of Participating TO]	
<u>By:</u>	
Title:	
Date:	
California Independent System Operato	r Corporation
<u>By:</u>	
Title:	
Date:	

Appendices to LGIA

Appendix A	Interconnection Facilities, Network Upgrades and Distribution Upgrades
Appendix B	Milestones
Appendix C	Interconnection Details
Appendix D	Security Arrangements Details
Appendix E	Commercial Operation Date
Appendix F	Addresses for Delivery of Notices and Billings
Appendix G	Interconnection Customer's Share of Costs of Network Upgrades for Applicable Project Group

Appendix H Interconnection Requirements for an Asynchronous Generating Facility

Appendix A

Interconnection Facilities, Network Upgrades and Distribution Upgrades

- 1. Interconnection Facilities:
 - (a) [insert Interconnection Customer's Interconnection Facilities]:
 - (b) [insert Participating TO's Interconnection Facilities]:
- 2. Network Upgrades:
 - (a) [insert Stand Alone Network Upgrades]:
 - (b) [insert Other Network Upgrades]:
 - (i) [insert Participating TO's Reliability Network Upgrades]
 - (ii) [insert Participating TO's Delivery Network Upgrades]
- 3. Distribution Upgrades:

Appendix B

Milestones

Appendix C

Interconnection Details

Appendix D

Security Arrangements Details

Infrastructure security of CAISO Controlled Grid equipment and operations and control hardware and software is essential to ensure day-to-day CAISO Controlled Grid reliability and operational security. FERC will expect the CAISO, all Participating TOs, market participants, and Interconnection Customers interconnected to the CAISO Controlled Grid to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

The Interconnection Customer shall meet the requirements for security implemented pursuant to the CAISO Tariff, including the CAISO's standards for information security posted on the CAISO's internet web site at the following internet address: http://www.caiso.com/pubinfo/info-security/index.html.

Appendix E

Commercial Operation Date

[This Appendix E sets forth a form of letter to be provided by the Interconnection Customer to the CAISO

and Participating TO to provide formal notice of the Commercial Operation of an Electric Generating Unit.]
[Date]
[CAISO Address]
[Participating TO Address]
Re: Electric Generating Unit
Dear :
On [Date] [Interconnection Customer] has completed Trial Operation of Unit No This letter confirms that [Interconnection Customer] commenced Commercial Operation of Unit No at the Electric Generating Unit, effective as of [Date plus one day] and that [Interconnection Customer] provided the CAISO's operations personnel advance notice of its intended Commercial Operation Date no less than five Business Days prior to that date.
Thank you.
[Signature]
[Interconnection Customer Representative]

Appendix F

Addresses for Delivery of Notices and Billings

Notices:

Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

CAISO:

[To be supplied.]

Billings and Payments:

Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

CAISO:

[To be supplied.]

Alternative Forms of Delivery of Notices (telephone, facsimile or e-mail):

Participating TO:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

CAISO:

[To be supplied.]

Appendix G

Interconnection Customer's Share of Costs of Network Upgrades for Applicable Project Group

Appendix H

INTERCONNECTION REQUIREMENTS FOR AN ASYNCHRONOUS GENERATING FACILITY

Appendix H sets forth interconnection requirements specific to all Asynchronous Generating Facilities. Existing individual generating units of an Asynchronous Generating Facility that are, or have been, interconnected to the CAISO Controlled Grid at the same location are exempt from the requirements of this Appendix H for the remaining life of the existing generating unit. Generating units that are replaced, however, shall meet the requirements of this Appendix H.

A. Technical Requirements Applicable to Asynchronous Generating Facilities

i. Low Voltage Ride-Through (LVRT) Capability

An Asynchronous Generating Facility shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the requirements below.

- An Asynchronous Generating Facility shall remain online for the voltage disturbance caused by any fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, having a duration equal to the lesser of the normal three-phase fault clearing time (4-9 cycles) or one-hundred fifty (150) milliseconds, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage unless clearing the fault effectively disconnects the generator from the system. Clearing time shall be based on the maximum normal clearing time associated with any three-phase fault location that reduces the voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 2. An Asynchronous Generating Facility shall remain online for any voltage disturbance caused by a single-phase fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, with delayed clearing, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage unless clearing the fault effectively disconnects the generator from the system. Clearing time shall be based on the maximum backup clearing time associated with a single point of failure (protection or breaker failure) for any single-phase fault location that reduces any phase-to-ground or phase-to-phase voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 3. Remaining on-line shall be defined as continuous connection between the Point of

 Interconnection and the Asynchronous Generating Facility's units, without any mechanical
 isolation. Asynchronous Generating Facilities may cease to inject current into the transmission
 grid during a fault.
- 4. The Asynchronous Generating Facility is not required to remain on line during multi-phased faults exceeding the duration described in Section A.i.1 of this Appendix H or single-phase faults exceeding the duration described in Section A.i.2 of this Appendix H.
- 5. The requirements of this Section A.i. of this Appendix H do not apply to faults that occur between the Asynchronous Generating Facility's terminals and the high side of the step-up transformer to the high-voltage transmission system.
- 6. Asynchronous Generating Facilities may be tripped after the fault period if this action is intended as part of a special protection system.

- 7. Asynchronous Generating Facilities may meet the requirements of this Section A.i of this

 Appendix H through the performance of the generating units or by installing additional equipment

 within the Asynchronous Generating Facility, or by a combination of generating unit performance
 and additional equipment.
- 8. The provisions of this Section A.i of this Appendix H apply only if the voltage at the Point of Interconnection has remained within the range of 0.9 and 1.10 per-unit of nominal voltage for the preceding two seconds, excluding any sub-cycle transient deviations.

The requirements of this Section A.i in this Appendix H shall not apply to any Asynchronous Generating Facility that can demonstrate to the CAISO a binding commitment, as of July 3, 2010, to purchase inverters for thirty (30) percent or more of the Generating Facility's maximum Generating Facility Capacity that are incapable of complying with the requirements of this Section A.i in this Appendix H. The Interconnection Customer must include a statement from the inverter manufacturer confirming the inability to comply with this requirement in addition to any information requested by the CAISO to determine the applicability of this exemption.

ii. Frequency Disturbance Ride-Through Capability

An Asynchronous Generating Facility shall comply with the off nominal frequency requirements set forth in the WECC Under Frequency Load Shedding Relay Application Guide or successor requirements as they may be amended from time to time.

iii. Power Factor Design Criteria (Reactive Power)

An Asynchronous Generating Facility shall operate within a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA in order to maintain a specified voltage schedule, if the Phase II Interconnection Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two, if agreed to by the Participating TO and CAISO. The Interconnection Customer shall not disable power factor equipment while the Asynchronous Generating Facility is in operation.

Asynchronous Generating Facilities shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Phase II Interconnection Study shows this to be required for system safety or reliability.

iv. Supervisory Control and Data Acquisition (SCADA) Capability

An Asynchronous Generating Facility shall provide SCADA capability to transmit data and receive instructions from the Participating TO and CAISO to protect system reliability. The Participating TO and CAISO and the Asynchronous Generating Facility Interconnection Customer shall determine what SCADA information is essential for the proposed Asynchronous Generating Facility, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability.

v. Power System Stabilizers (PSS)

Power system stabilizers are not required for Asynchronous Generating Facilities.

* * *

Appendix A Master Definition Supplement

* * *

- ADNU

Area Delivery Network Upgrade.

* * *

- Area Delivery Network Upgrade

A transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

* * *

- Area Deliverability Constraint

A transmission system operating limit, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable Transmission Planning Process portfolio for the entire portfolio area. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

* * *

Deliverability

(1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability

Assessment and measured in MW, which specifies the amount of resource adequacy capacity the

Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an Intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load-Serving Entities collectively can procure from imports at that Intertie to meet their resource adequacy requirements.

* *

- Deliverability Assessment

An evaluation <u>performed pursuant toby</u> the <u>Participating TO</u>, CAISO <u>On-Peak Deliverability Assessment posted oner a third party consultant for the <u>CAISO website</u>, <u>Interconnection Customer</u> to determine <u>ifa list of facilities</u>, the cost of those facilities, and the time required to construct these facilities, that would</u>

ensure a Generating Facility or a group of Generating Facilities could provide Energy to the CAISO Controlled Grid and be delivered to the aggregate of Load on the CAISO Controlled Grid at peak Load, under a variety of severely stressed conditions. , such that the aggregate of Generation in the local area can be delivered to the aggregate of Load on the CAISO Controlled Grid, consistent with the CAISO's reliability criteria and procedures.

* * *

- Deliverability Status

An attribute of a Generating Facility that is requested by an Interconnection Customer for the Generating Facility, assigned by the CAISO to the Generating Facility through the GIP, GIDAP or other process specified in the CAISO tariff, and that affects the maximum Net Qualifying Capacity to which the Generating Facility could be entitled.

* * *

- Fast Track Process

The GIP or GIDAP procedure for evaluating an Interconnection Request for a certified Small Generating Facility no larger than 5 MW that includes application of screens, customer options meetings, and optional supplemental review.

* * *

- Force Majeure

Force Majeure" shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

* *

- Full Capacity Deliverability Status

Full Capacity Deliverability Status entitles a Generating Facility to a Net Qualifying Capacity amount that could be as large as its Qualifying Capacity and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO. The condition whereby a Large Generating Facility interconnected with the CAISO Controlled Grid, under coincident CAISO Balancing Authority Area peak Demand and a variety of severely stressed system conditions, can deliver the Large Generating Facility's full output to the aggregate of Load on the CAISO Controlled Grid, consistent with the CAISO's Reliability Criteria and procedures and the CAISO On-Peak Deliverability Assessment.

* * *

- Generator Interconnection and Deliverability Allocation Procedures

The Interconnection procedures applicable to an Interconnection Request pertaining to a Generating Facility processed under Appendix DD.

* * *

- GIDAP

Generator Interconnection and Deliverability Allocation Procedures

* * *

- Governmental Authority

Any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, or Participating TO, or any Affiliate thereof.

* * *

-Interconnection Study Cycle

All requirements, actions, and respective obligations of the CAISO, Participating TO, and Interconnection Customer under the GIP set forth in Appendix Y or the GIDAP set forth in Appendix DD applicable to an Interconnection Request submitted in the applicable one of the two annual Cluster Application Windows and including through execution by the parties or submission to FERC by one or more parties of a GIA.

* * *

- Independent Study Process

The GIP or GIDAP procedure for evaluating an Interconnection Request for a Generating Facility independently of the process applicable to a Generating Facility assigned to a Queue Cluster or the Fast Track Process.

* * *

<u>- LDNU</u>

Local Delivery Network Upgrade.

* * *

- Local Deliverability Constraint

A transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign Full Capacity Deliverability Status or Partial Capacity Deliverability Status to one or

more additional Generating Facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

* *

- Local Delivery Network Upgrade

A transmission upgrade or addition identified by the CAISO in the GIDAP interconnection study process to relieve a Local Deliverability Constraint.

* * *

- On-Peak Deliverability Assessment

The technical study performed under GIP Section 6.3.2.1 set forth in Appendix Y or GIDAP Section 6.3.2.1 set forth in Appendix DD.

* * *

Option (A) Generating Facility

A Generating Facility for which the Interconnection Customer has selected Option (A) as the Deliverability option under GIDAP Section 7.2 set forth in Appendix DD.

* * *

Option (B) Generating Facility

Generating Facilities for which the Interconnection Customer has selected Option (B) as the Deliverability option under GIDAP Section 7.2 set forth in Appendix DD.

* * *

- Partial Capacity Deliverability Status

Partial Capacity Deliverability Status entitles a generating facility to a Net Qualifying Capacity amount that cannot be larger than a specified fraction of its Qualifying Capacity, and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO. An Interconnection Customer requesting Partial Capacity Deliverability Status must specify the fraction of Full Capacity Deliverability Status it is seeking in its Interconnection Request.

* * *

- Phased Generating Facility

A Generating Facility that is structured to be completed and to achieve Commercial Operation in two or more successive phases that are specified in a GIA, such that each phase comprises a portion of the total megawatt generation capacity of the entire Generating Facility.

* * *

- Qualifying Capacity

The maximum Resource Adequacy eCapacity of that a Resource Adequacy Resource may be eligible to provide. The criteria and methodology for calculating the Qualifying Capacity from of resources Resource Adequacy Resources may be established by the CPUC or other applicable Local Regulatory Authority and provided to the CAISO. A resource's eligibility to provide Resource Adequacy Capacity may be reduced below its Qualifying Capacity through the CAISO's assessment of Net Qualifying Capacity.

* * *

- Queue Cluster

A set of Interconnection Requests processed in an Interconnection Study Cycle pursuant to Appendix Y or Appendix DD other than pursuant to the Fast Track Process or the Independent Study Process set forth in Appendix Y or Appendix DD.

* * *

- Reasonable Efforts

With respect to an action required to be attempted or taken by a party under the GIDAP, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a party would use to protect its own interests.

* * *

- Reliability Network Upgrades

The transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Large-Generating Facility(ies) safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Large Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for system operating limitsthermal overloads, occurring under any system condition, which where such system operating limitsthermal overloads cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Large-Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Large-Generating Facility's interconnection may have on a path's WECC rating.

* * *

- RNU

Reliability Network Upgrades.

* * *

- Roles and Responsibilities Agreement

The Agreement for the Allocation of Responsibilities with Regard to Generator Interconnection

Procedures and Interconnection Study Agreements, a pro forma version of which is attached to GIP

Appendix Y and GIDAP Appendix DD.

* * *

- TPD

Transmission Plan Deliverability.

* * *

- TP Deliverability

The capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions modeled or identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

* * *

* * *

Appendix DD

Generator Interconnection and Deliverability Allocation Procedures (GIDAP)

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15.7 Change In CAISO Operational Control

Appendix 1 Interconnection Request

Attachment A Generating Facility Data

Appendix 2 [Intentionally Omitted]

Appendix 3 Generator Interconnection Study Process Agreement for Queue Clusters

Appendix A Assumptions Used in Conducting the Phase I Interconnection Study

Appendix B Data Form to Be Provided by the Interconnection Customer Prior to Commencement of the Phase II Interconnection Study

Appendix 4 Agreement for the Allocation of Responsibilities with Regard to Generator Interconnection Procedures and Interconnection Study Agreements

Attachment A Interconnection Study Responsibility Allocation

Attachment B Contacts for Notices

Appendix 5 Schedule for Release and Review of Per Unit Costs

Appendix 6 GIDAP Agreement for Independent Study Process

Appendix A Assumptions Used in Conduction the System Impact Study

Appendix B Data Form to Be Provided by the Interconnection Customer Prior to Commencement of the Phase II Interconnection Study

Appendix 7 Application, Procedures, and Terms and Conditions for Interconnecting a Certified

Inverter-Based Small Generating Facility No Larger than 10kW ('10 kW Inverter

Process")

Section 1 Objectives And Applicability

1.1 Objectives And Applicability

The objective of this Generation Interconnection and Deliverability Allocation Procedures (GIDAP) is to implement the requirements for both Small and Large Generating Facility interconnections to the CAISO Controlled Grid and to provide a process for allocating Transmission Plan Deliverability for Interconnection Requests starting with Queue Cluster 5 and for subsequent Queue Clusters. This GIDAP applies to Interconnection Requests that are either assigned to Queue Cluster 5 and subsequent Queue Clusters, or submitted for the Independent Study Process, or Fast Track Process after [effective date of tariff amendment].

Section 2 Scope And Application

2.1 Application Of Generator Interconnection Procedures

Sections 2 through 15 apply to processing an Interconnection Request pertaining to a Generating Facility that is either: (i) assigned to Queue Clusters 5 and subsequent Queue Clusters, or (ii) included in the Independent Study Process, or (iii) included in the Fast Track Process, after July 25, 2012 pursuant to the terms of this CAISO Tariff for the performance of its Interconnection Studies.

2.2 Comparability

The CAISO shall receive, process, and analyze Interconnection Requests in a timely manner as set forth in this GIDAP. The CAISO will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers as set forth in this GIDAP, whether the Generating Facilities are owned by a Participating TO, its subsidiaries, or Affiliates or others.

2.3 Interconnection Base Case Data

For each Interconnection Study Cycle, the CAISO, in coordination with applicable Participating TO(s), shall publish updated Interconnection Base Case Data, including, as applicable, separate Interconnection Base Case Data for each Group Study to reflect system conditions particular to the Group Study, to a secured section of the CAISO Website: (1) prior to the Phase I Interconnection Study with the Generation reflected in valid Interconnection Requests for the Interconnection Study Cycle, as well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions; (2) after the Phase I Interconnection Study with the Generation reflected in valid Interconnection Requests submitted in the Cluster Application Window for the Interconnection Study Cycle, and the identified preliminary transmission upgrades or additions, as well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions; (3) prior to the Phase II Interconnection Study, including all remaining Generation from the Phase I Interconnection Study for the Interconnection Study Cycle, as well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection gueue prior to the creation of the Base Case, along with any associated transmission upgrades or additions; and (4) after the Phase II Interconnection Study, including all remaining Generation from the applicable Phase I Interconnection Study and the identified transmission upgrades and additions for the Interconnection Study Cycle, as

well as all Generation reflected in the Interconnection Requests in the Independent Study Process that entered the CAISO's interconnection queue prior to the creation of the Base Case, along with any associated transmission upgrades or additions.

Interconnection Base Case Data shall include information subject to the confidentiality provisions in Section 15.1.

The CAISO shall require current and former Interconnection Customers, Market Participants, and electric utility regulatory agencies within California to sign a CAISO confidentiality agreement and, where the current or former Interconnection Customer or Market Participant is not a member of WECC, or its successor, an appropriate form of agreement with WECC, or its successor, as necessary. All other entities or persons seeking Interconnection Base Case Data must satisfy the foregoing requirements as well as all requirements under 18 C.F.R. Section 388.113 for obtaining the release of Critical Energy Infrastructure Information (as that term is defined by FERC).

2.4 Interconnection Service And Studies

2.4.1 No Applicability to Transmission Service.

Nothing in this GIDAP shall constitute a request for transmission service or confer upon an Interconnection Customer any right to receive transmission service.

2.4.2 The Product.

Interconnection Service allows the Interconnection Customer to connect the Generating Facility to the CAISO Controlled Grid and be eligible to deliver the Generating Facility's output using the available capacity of the CAISO Controlled Grid. Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or point of delivery or rights to any specific MW of available capacity on the CAISO Controlled Grid.

2.4.3 The Interconnection Studies.

For Interconnection Requests in Queue Cluster 5 and subsequent Queue Clusters, the Interconnection Studies consist of a Phase I Interconnection Study, a reassessment conducted prior to the commencement of a Phase II Interconnection Study, a Phase II Interconnection Study, and an update to the Phase II Interconnection Study report to reflect the results of a reassessment conducted after the TP Deliverability allocation process for the Queue Cluster.

For Interconnection Requests processed under the Independent Study Process, the Interconnection Studies consist of a System Impact Study, a Facilities Study, and, as applicable to Full Capacity or Partial Capacity Deliverability Status, Phase I and Phase II Interconnection Studies and a reassessment.

2.4.3.1 The Phase I Interconnection Studies

The Phase I Interconnection Studies for Queue Cluster Generating Facilities will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The Phase I Interconnection Studies will identify direct Interconnection Facilities and required Reliability Network Upgrades necessary to interconnect the

Generating Facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested Interconnection Service. The Phase I Interconnection Studies will also identify LDNU for Generating Facilities, including those being processed under the Independent Study Process, that have selected Full Capacity or Partial Capacity Deliverability Status. Such LDNU shall be identified in accordance with the On-Peak Deliverability Assessment set forth in Section 6.3.2. The Phase I Interconnection Studies will also provide cost estimates for ADNUs, as described in Section 6.3.2.1.2. The Phase I Interconnection Study report shall include cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall, as applicable, establish the basis for the initial Interconnection Financial Security postings under Section 11.2.

2.4.3.2 The Reassessment Prior to Phase II Interconnection Studies

Before undertaking the Phase II Interconnection Studies, the CAISO will conduct a reassessment, as specified in Section 7.4, to conform the Base Case and Interconnection Base Case Data to account for later conditions since the CAISO performed the Phase II Interconnection Study in the prior Interconnection Study Cycle,

2.4.3.3 The Phase II Interconnection Studies

The Phase II Interconnection Studies will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses, and will identify direct Interconnection Facilities and required RNUs necessary to interconnect the Generating Facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested Interconnection Service. The Phase II Interconnection Studies shall identify LDNUs for Generating Facilities participating in Phase II (including those being processed under the Independent Study Process) that have elected Full Capacity or Partial Capacity Deliverability Status, and ADNUs for Interconnection Customers selecting Option (B) in accordance with Section 7.2.

The Phase II Interconnection Study report shall also set forth the applicable cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall, as applicable, establish the basis for the second and third Interconnection Financial Security postings under Section 11.3.

Where an Interconnection Study report identifies specific transmission facilities for Network Upgrade or Interconnection Facilities, the cost estimates determined in accordance with Section 6.4 will be set forth in present dollar costs as well as time-adjusted dollar costs, adjusted to the estimated year of expenditure for construction of the components being constructed.

2.4.3.4 Update Following TP Deliverability Allocation Process

Following the completion of Phase II Interconnection Studies for the Queue Cluster and provision by the ISO of the results to Interconnection Customers in the Queue Cluster, the ISO will perform the allocation of TP Deliverability to eligible Generating Facilities in accordance with Section 8.9. Based on the results of the allocation process and the responses to those results as reported by affected Interconnection Customers to the ISO, the ISO will provide updates where needed to the Phase II Interconnection Study reports

of affected Interconnection Customers. The update to the Phase II Interconnection Study report provided under this section shall not extend the time for the second Interconnection Financial Security posting under Section 11.3.

Section 3 Interconnection Requests

3.1 General

Pursuant to CAISO Tariff Section 25.1, an Interconnection Customer shall submit to the CAISO an Interconnection Request in the form of Appendix 1 to this GIDAP. The CAISO will forward a copy of the Interconnection Request to the applicable Participating TO within five (5) Business Days of receipt.

The Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. The Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

3.2 Roles And Responsibilities

- (a) Each Interconnection Request will be subject to the direction and oversight of the CAISO.

 The CAISO will conduct or cause to be performed the required Interconnection Studies and any additional studies the CAISO determines to be reasonably necessary, and will direct the applicable Participating TO to perform portions of studies where the Participating TO has specific and non-transferable expertise or data and can conduct the studies more efficiently and cost effectively than the CAISO. The CAISO will coordinate with Affected System Operators in accordance with Section 3.7.
- (b) The CAISO will complete or cause to be completed all studies as required within the timelines provided in this. Any portion of the studies performed at the direction of the CAISO by the Participating TOs or by a third party shall also be completed within timelines provided in this GIDAP.
- (c) The CAISO has established a pro forma Roles and Responsibilities Agreement, attached hereto as Appendix 4 and incorporated herein by reference, for execution by the CAISO and the applicable Participating TOs.
- (d) Each Interconnection Customer shall pay the actual costs of all Interconnection Studies, and any additional studies the CAISO determines to be reasonably necessary in response to the Interconnection Request. The CAISO shall reimburse the Participating TO for the actual cost of any portion of all Interconnection Studies that such Participating TO performs at the direction of the CAISO.

3.3 Timing for Submitting Interconnection Requests

3.3.1 Timing for Submitting Interconnection Requests for a Queue Cluster

Except for Interconnection Customers requesting processing under the Independent Study Process or Fast Track Process, Interconnection Requests must be submitted during a Cluster Application Window. The Cluster Application Windows for Queue Cluster 5 were open from October 15, 2011 to November 15, 2011 and March 1, 2012 to March 31, 2012. Starting with Queue Cluster 6, a single Cluster Application Window will

open on April 1 and close on April 30 of each year. If any date set forth in this section is not a Business Day, then the applicable date shall be the next Business Day.

3.3.2 Timing for Submitting Interconnection Requests for Independent Study Process and Fast Track Process

Interconnection Customers may submit Interconnection Requests for processing under the Independent Study Process or the Fast Track Process at any time during the year.

3.4 [Not Used]

3.5 Processing of Interconnection Requests

3.5.1 Initiating an Interconnection Request.

To initiate an Interconnection Request, except as set forth for the Fast Track Process in Section 5, and have the Interconnection Request considered for validation under Section 3.5.2, the Interconnection Customer must submit all of the following during the Cluster Application Window, or at any time during the year for proposed Generating Facilities applying for processing under the Independent Study Process:

- (i) An Interconnection Study Deposit equal to \$50,000 plus \$1,000 per MW of electrical output of the Generating Facility, up to a maximum of \$250,000.
- (ii) A completed application in the form of Appendix 1, including requested

 Deliverability status, requested study process (either Queue Cluster or

 Independent Study Process), preferred Point of Interconnection and voltage
 level, and all other required technical data.
- (iii) Demonstration of Site Exclusivity or, for Interconnection Requests in a Queue Cluster, a posting of a Site Exclusivity Deposit of \$100,000 for a Small Generating Facility or \$250,000 for a Large Generating Facility. The demonstration of Site Exclusivity, at a minimum, must be through the Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility.

3.5.1.1 Use of Interconnection Study Deposit.

The CAISO shall deposit all Interconnection Study Deposits in an interest bearing account at a bank or financial institution designated by the CAISO. The Interconnection Study Deposit shall be applied to pay for prudent costs incurred by the CAISO, the Participating TOs, or third parties at the direction of the CAISO or Participating TOs, as applicable, to perform and administer the Interconnection Studies and to meet and otherwise communicate with Interconnection Customers with respect to their Interconnection Requests.

Except for proposed Generating Facilities processed under the Fast Track Process set forth in Section 5, the Interconnection Study Deposits shall be refundable as follows:

(a) Should an Interconnection Request be withdrawn by the Interconnection

Customer or be deemed withdrawn by the CAISO by written notice under

Section 3.8 on or before thirty (30) calendar days following the Scoping Meeting, the CAISO shall refund to the Interconnection Customer any portion of the

Interconnection Customer's Interconnection Study Deposit, including interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal, that exceed the costs the CAISO, Participating TOs, and third parties have incurred on the Interconnection Customer's behalf.

- (b) Should an Interconnection Request made under Section 3.5.1 be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under Section 3.8 more than thirty (30) calendar days after the Scoping Meeting, but on or before thirty (30) calendar days following the Results Meeting (or the latest date permitted under this for a Results Meeting if a customer elects not to have a Results Meeting) for the Phase I Interconnection Study or the System Impact Study for Generating Facilities processed under the Independent Study Process, the CAISO shall refund to the Interconnection Customer the difference between (i) the Interconnection Customer's Interconnection Study Deposit and (ii) the greater of the costs the CAISO and Participating TOs have incurred on the Interconnection Customer's behalf or one-half of the original Interconnection Study Deposit up to a maximum of \$100,000, including interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal.
- Interconnection Customers in Queue Cluster 5 who have provided the Study

 Deposit may receive a refund of the Interconnection Study Deposit, less actual

 costs expended on the Interconnection Studies to date, by withdrawing from the

 Queue within ten (10) calendar days after July 25, 2012.
- (c) Should an Interconnection Request be withdrawn by the Interconnection

 Customer or be deemed withdrawn by the CAISO by written notice under

 Section 3.8 at any time more than thirty (30) calendar days after the Results

 Meeting (or the latest date permitted for a Results Meeting if a customer elects
 not to have a Results Meeting) for the Phase I Interconnection Study, or the

 System Impact Study for proposed Generating Facilities processed under the
 Independent Study Process, the Interconnection Study Deposit shall be nonrefundable.
- (d) Upon execution of a GIA by an Interconnection Customer, the CAISO and the applicable Participating TOs, or the approval by FERC of an unexecuted GIA, the CAISO shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit, including interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal, that exceeds the costs the CAISO, Participating TOs, and third parties have incurred on the Interconnection Customer's behalf.

Notwithstanding the foregoing, an Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request during an Interconnection Study Cycle shall be obligated to pay to the CAISO all costs in excess of the Interconnection Study Deposit that have been prudently incurred or irrevocably have been committed to be incurred with respect to that Interconnection Request prior to withdrawal. The CAISO will reimburse the applicable Participating TO(s) or third parties, as applicable, for all work performed on behalf of the withdrawn Interconnection Request at the CAISO's direction.

The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

All non-refundable portions of the Interconnection Study Deposit that exceed the costs the CAISO, Participating TOs, or third parties have incurred on the Interconnection Customer's behalf shall be treated in accordance with CAISO Tariff Section 37.9.4.

3.5.1.2 Obligation for Study Costs.

Except as otherwise provided in Section 3.5.1.1, the CAISO shall charge and the Interconnection Customer(s) shall pay the actual costs of the Interconnection Studies. Where an Interconnection Study is performed by means of a Group Study, the cost of the Group Study will be charged pro rata to each Interconnection Request assigned to the Group Study. The cost of Interconnection Studies performed for an individual Interconnection Request, not part of a Group Study, will be charged solely to the Interconnection Customer that submitted the Interconnection Request.

The Participating TO and any third parties performing work on the Interconnection Customer's behalf shall invoice the CAISO for such work, and the CAISO shall issue invoices for Interconnection Studies that shall include a detailed and itemized accounting of the cost of each Interconnection Study. The CAISO shall draw from the Interconnection Study Deposit any undisputed costs within thirty (30) calendar days of issuance of an invoice. Whenever the actual cost of performing the Interconnection Studies exceeds the Interconnection Study Deposit, the Interconnection Customer shall pay the undisputed difference in accordance with the CAISO issued invoice within thirty (30) calendar days. The CAISO shall not be obligated to continue to have any studies conducted unless the Interconnection Customer has paid all undisputed amounts in compliance herewith. In the event an Interconnection Study, or portions thereof, is performed by the CAISO, the Interconnection Customer shall pay only the costs of those activities performed by the Participating TO to adequately review or validate that Interconnection Study or portions thereof.

3.5.1.3 Use of Site Exclusivity Deposit.

The CAISO shall deposit all Site Exclusivity Deposits in an interest bearing account at a bank or financial institution designated by the CAISO. The Site Exclusivity Deposit shall be refundable to the Interconnection Customer at any time upon demonstration of Site Exclusivity or the Interconnection Request is withdrawn by the Interconnection Customer or deemed withdrawn by the CAISO by written notice under Section 3.8. The refund of the Site Exclusivity Deposit shall include interest earned at the rate provided for in the interest-bearing account from the date of deposit to the date of withdrawal. The Site Exclusivity Deposit shall continue to be required after the Interconnection Customer either executes a GIA or requests the filing of an unexecuted GIA under Section 13 if Site Exclusivity has not been demonstrated.

3.5.1.4 Proposed Commercial Operation Date.

The proposed Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility shall not exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates, and the applicable Participating TO(s) and the CAISO agree.

such agreement not to be unreasonably withheld, that engineering, permitting and construction of the new Generating Facility or increase in capacity of the existing Generating Facility will take longer than the seven year period. The CAISO's agreement to an extension of the proposed Commercial Operation Date does not relieve the Interconnection Customer from compliance with the requirements of any of the criteria in Section 8.9.3 for retention of TP Deliverability.

3.5.2 Validation of Interconnection Request.

3.5.2.1 Acknowledgment of Interconnection Request.

The CAISO shall notify the Interconnection Customer within ten (10) Business Days of receipt of the Interconnection Request, which notice shall state whether the Interconnection Request is deemed complete, valid, and ready to be studied.

3.5.2.2 Deficiencies in Interconnection Request.

An Interconnection Request will not be considered to be a valid request until the CAISO determines that the information contained in the Interconnection Request is complete and the Interconnection Customer has provided all items in satisfaction of Section 3.5.1. If an Interconnection Request fails to meet the requirements set forth in Section 3.5.1, the CAISO shall include in its notification to the Interconnection Customer under Section 3.5.2.1 the reasons for such failure and that the Interconnection Request does not constitute a valid request. The Interconnection Customer shall provide the CAISO the additional requested information needed to constitute a valid request. Whenever additional requested information is provided by the Interconnection Customer, the CAISO shall notify the Interconnection Customer within five (5) Business Days of receipt of the additional requested information whether the Interconnection Request is valid. If the Interconnection Request continues to fail to meet the requirements set forth in Section 3.5.1, the CAISO shall include in its notification to the Interconnection Customer the reasons for such failure. If an Interconnection Request has not been deemed valid, the Interconnection Customer must submit all information necessary to meet the requirements of Section 3.5.1 no later than twenty (20) Business Days after the close of the applicable Cluster Application Window or ten (10) Business Days after the CAISO first provided notice that the Interconnection Request was not valid, whichever is later. Interconnection Requests that have not met the requirements of Section 3.5.1 within twenty (20) Business Days after the close of the applicable Cluster Application Window or ten (10) Business Days after the CAISO first provided notice that the Interconnection Request was not valid, whichever is later, will be deemed invalid and will not be included in Interconnection Study Cycle or otherwise studied.

Interconnection Requests deemed invalid under this Section 3.5.2.2 are not subject to Section 3.8. Interconnection Customers with invalid Interconnection Request under this Section 3.5.2.2 may seek relief under Section 14.5 by so notifying the CAISO within two (2) Business Days of the notice of invalidity.

3.6 Internet Posting

The CAISO will maintain on the CAISO Website a list of all Interconnection Requests.

The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or

transmission line or lines where the interconnection will be made; (iv) the most recent projected Commercial Operation Date; (v) the status of the Interconnection Request, including whether it is active or withdrawn; (vi) the availability of any studies related to the Interconnection Request; (vii) the date of the Interconnection Request; (viii) the type of Generating Facility to be constructed (e.g., combined cycle, combustion turbine, wind turbine, and fuel type); and (ix) requested Deliverability status.

Except in the case of an Affiliate, the list will not disclose the identity of the Interconnection Customer until the Interconnection Customer executes a GIA or requests that the applicable Participating TO(s) and the CAISO file an unexecuted GIA with FERC. The CAISO shall post on the CAISO Website an advance notice whenever a Scoping Meeting will be held with an Affiliate of a Participating TO.

The CAISO shall post to the CAISO Website any deviations from the study timelines set forth herein. The CAISO shall further post to the secure CAISO Website portions of the Phase I Interconnection Study that do not contain customer-specific information following the final Results Meeting and portions of the Phase II Interconnection Study that do not contain customer-specific information no later than publication of the final Transmission Plan under CAISO Tariff Section 24.2.5.2 (such posted information to be placed on the secure CAISO Website to protect any Critical Energy Infrastructure Information contained therein). The CAISO shall post to the secure CAISO Website any documents or other materials posted pursuant to this or a Business Practice Manual that contain Critical Energy Infrastructure Information.

3.7 Coordination With Affected Systems

The CAISO will notify the Affected System Operators that are potentially affected by the Interconnection Customer's Interconnection Request or Group Study within which the Interconnection Customer's Interconnection Request will be studied. The CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators, to the extent possible, and, if possible, the CAISO will include those results (if available) in its applicable Interconnection Study within the time frame specified in this GIDAP. The CAISO will include such Affected System Operators in all meetings held with the Interconnection Customer as required by this GIDAP. The Interconnection Customer will cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems, including providing consent to CAISO's identification to Interconnection Customer's name, Generating Facility project name, and release of information which the Interconnection Customer provided as part of its Interconnection Request to the Affected System, participating in any coordinating activities and communications undertaken by the Affected System or CAISO, signing separate study agreements with Affected System owners and paying for necessary studies. An entity which may be an Affected System shall cooperate with the CAISO in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

3.8 Withdrawal

The Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to the CAISO, and the CAISO will notify the applicable Participating TO(s) and Affected System Operators, if any, within three (3) Business Days of receipt of such a notice. In addition, after confirmation by the CAISO of a valid

Interconnection Request under Section 3.5.2, if the Interconnection Customer fails to adhere to all requirements of this GIDAP, except as provided in Section 14.3 (Disputes), the CAISO shall deem the Interconnection Request to be withdrawn and shall provide written notice to the Interconnection Customer within five (5) Business Days of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, the Interconnection Customer shall have five (5) Business Days in which to respond with information or action that either cures the deficiency or supports its position that the deemed withdrawal was erroneous and notifies the CAISO of its intent to pursue Dispute Resolution.

Withdrawal shall result in the removal of the Interconnection Request from the Interconnection Study Cycle. If an Interconnection Customer disputes the withdrawal and removal from the Interconnection Study Cycle and has elected to pursue Dispute Resolution, the Interconnection Customer's Interconnection Request will not be considered in any ongoing Interconnection Study during the Dispute Resolution process.

In the event of such withdrawal, the CAISO, subject to the provisions of Sections 15.1 and 3.5.1.1, shall provide, at the Interconnection Customer's request, all information that the CAISO developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

3.9 Transferability Of Interconnection Request

An Interconnection Customer may transfer its Interconnection Request to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

Section 4 Independent Study Process

The CAISO, in coordination with the applicable Participating TO(s), will study Interconnection Requests eligible for treatment under this Independent Study Process independently from other Interconnection Requests.

In the event of a conflict between this Section 4 and another provision of this GIDAP Section 4 shall govern.

4.1 Criteria for Independent Study Process Eligibility

Any Interconnection Request that meets the following criteria will be processed under the Independent Study Process:

- 4.1.1 The Interconnection Customer must provide, along with its Interconnection Request, an objective demonstration that inclusion in a Queue Cluster will not accommodate the desired Commercial Operation Date for the Generating Facility. As part of this demonstration, the Interconnection Customer must show that the desired Commercial Operation Date is physically and commercially achievable, by demonstrating at least two of the following:
 - (i) The Interconnection Customer has obtained, or has demonstrated the ability to obtain, all regulatory approvals and permits needed to complete construction in time to meet the Generating Facility's requested Commercial Operation Date.
 - (ii) The Interconnection Customer is able to provide, or has demonstrated the ability to obtain, a purchase order for generating equipment specific to the proposed Generating Facility, or a statement signed by an officer or authorized agent of the

Interconnection Customer demonstrating that the Interconnection Customer has a commitment for the supply of its major generating equipment in time to meet the Commercial Operation Date through a purchase agreement to which the Interconnection Customer is a party.

- (iii) The Interconnection Customer can provide reasonable evidence of adequate financing or other financial resources necessary to make the Interconnection Financial Security postings required in Sections 11.2 and 11.3.
- 4.1.2 The Interconnection Customer must demonstrate Site Exclusivity.
- 4.1.3 The proposed Generating Facility must be electrically independent of Interconnection

 Requests included in an existing Queue Cluster, pursuant to Section 4.2, and, in addition, must be electrically independent of any other Generating Facility that is currently being studied under an earlier-queued Independent Study Process Interconnection Request.
- 4.1.4 The CAISO will inform an Interconnection Customer whether it has satisfied the requirements set forth in Sections 4.1.1 and 4.1.2 of the within fifteen (15) Business Days of receiving the Interconnection Request.
- 4.1.5 The CAISO will inform an Interconnection Customer whether it has satisfied the requirement that it be electrically independent of other Interconnection Requests, pursuant to Section 4.2 of the , within fifteen (15) Business Days of receiving the Interconnection Request.
- 4.1.6 Any Interconnection Request that does not satisfy the criteria set forth in Sections 4.1.1,
 4.1.2, and 4.1.3 shall be deemed withdrawn, without prejudice to the Interconnection

 Customer submitting a request at a later date, unless the Interconnection Customer

 notifies the CAISO in writing within ten (10) Business Days that it wishes the CAISO to
 hold the Interconnection Request for inclusion in the next Queue Cluster, in which event
 the CAISO will do so.

4.2 Determination of Electrical Independence

Each Interconnection Request submitted under the Independent Study Process must pass both the flow impact test and the short circuit test set forth in this Section 4.2 in order to qualify for the Independent Study Process. The available power flow and short circuit Base Cases that are being used for the most recent Queue Cluster will be used as the starting Base Cases for these tests.

4.2.1 Flow Impact Test

An Interconnection Request shall have satisfied the requirements of this Section if it satisfies, alternatively, either the set of requirements set forth in Section 4.2.1.1 or the set of requirements set forth in Section 4.2.1.2.

4.2.1.1 Requirement Set Number One: General Independent Study Requests:

The CAISO, in coordination with the applicable Participating TO(s), will perform the flow impact test for an Interconnection Request requesting to be processed under the Independent Study Process as follows:

(i) Identify the transmission facility closest, in terms of electrical distance, to the proposed Point of Interconnection of the Generating Facility being

tested that will be electrically impacted, either as a result of Network Upgrades identified or reasonably expected to be needed by Generating Facilities currently being studied in a Queue Cluster, or as a result of Network Upgrades identified or reasonably expected to be needed by earlier queued Generating Facilities currently being studied through the Independent Study Process. If the current Queue Cluster studies or earlier queued Independent Study Process studies have not yet determined which transmission facilities electrically impacted by the Generating Facility being tested require Network Upgrades, and the CAISO cannot reasonably anticipate whether such transmission facilities will require Network Upgrades from other data, then the CAISO will wait to conduct the independence analysis under this section until sufficient information exists in order to make this determination.

- (ii) The incremental power flow on the transmission facility identified in Section 4.2.1(i) that is caused by the Generating Facility being tested will be divided by the lesser of the Generating Facility's size or the transmission facility capacity. If the result is five percent (5%) or less, the Generating Facility shall pass the flow impact test. If the Generating Facility being tested is tested against the nearest transmission facility and that transmission facility has been impacted by a cluster that required an upgrade as a result of a contingency, then that contingency will be used when applying the flow impact test.
- (iii) If the Generating Facility being tested under the flow impact test is reasonably expected to impact transmission facilities that were identified, per Section 4.2.1 (i), when testing one or more earlier queued Generating Facilities currently being studied through the Independent Study Process, then an additional aggregate power flow test shall be performed on these earlier identified transmission facilities. The aggregate power flow test shall require that the aggregated power flow of the Generating Facility being tested, plus the flow of all earlier queued Generating Facilities currently being studied under the Independent Study Process that were tested against the transmission facilities described in the previous sentence, must be five (5) percent or less of those transmission facilities' capacity.

However, even if the aggregate power flow on any transmission facility tested pursuant to this section (iii) is greater than five (5) percent of the transmission facility's capacity but the incremental power flow as a result of the Generating Facility being tested is one (1) percent or less than of the transmission facility's capacity, the Generating Facility shall pass the test.

If the Generating Facility being tested is tested against the nearest transmission facility and that transmission facility has been impacted by a cluster that required an upgrade as a result of a contingency, then that contingency will be used when applying the flow impact test.

The Generating Facility being tested must pass both this aggregate test as well as the individual flow test described in Section 4.2.1 (ii), in no particular order.

4.2.1.2 Requirement Set Number Two: for Requests for Independent Study of Behind-the-Meter Expansion

This Section 4.2.1.2 applies to an Interconnection Request relating to a behind-the-meter expansion where the existing Generating Facility prime mover is wind technology or solar technology. Such an Interconnection Request submitted under the Independent Study Process will satisfy the requirements of Section 4.2.1 if it satisfies all of the following technical and business criteria for behind-the-meter capacity expansion of a Generating Facility:

(i) Technical criteria.

- 1) The total nameplate capacity of the existing Generating Facility plus the incremental increase in capacity does not exceed in the aggregate one hundred twenty-five (125) percent of its previously studied capacity and does not exceed, in the aggregate, one hundred (100) MW.
- 2) The behind-the-meter capacity expansion shall not take place until after the original Generating Facility has achieved Commercial Operation and all Network Upgrades for the original Generating Facility have been placed in service.
- 3) The expanded capacity for the Generating Facility has been placed under a separate breaker (the expansion breaker) such that the expansion can be metered separately at all times.
- 4) Unless specifically requested by the CAISO, the total output of the Generating Facility does not exceed its originally studied capacity at any time. The CAISO will have the authority to trip the expansion breaker if the total output of the Generating Facility exceeds the originally studied capacity.
- 5) The processing of an Interconnection Request for behind-the-meter expansion under the Independent Study Process shall not result in any increase in the rated Generating Facility electrical output (MW capacity) beyond the rating which pre-existed the Interconnection Request. Further, the processed Interconnection Request shall not operate as a basis under the CAISO Tariff to increase the Net Qualifying Capacity of the Generating Facility beyond the rating which pre-existed the Interconnection Request.

(ii) Business criteria.

- The Deliverability Status (Full Capacity, Partial Deliverability or Energy-Only) of the capacity expansion is the same as the Deliverability Status specified for the formally studied Generating Facility.
- 2) The GIA is amended to reflect the revised operational features of the Generating Facility capacity expansion.

3) The Interconnection Customer may at any time request that the CAISO convert the Interconnection Request for behind-the-meter expansion to an Independent Study Process Interconnection Request to evaluate an incremental increase in electrical output (MW generating capacity) for the existing Generating Facility. The Interconnection Customer must accompany such a conversion request with an appropriate Interconnection Study Deposit and agree to comply with other sections of Section 4 applicable to an Independent Study Process Interconnection Request.

4.2.2 Short Circuit Test

If the short circuit contribution from the Generating Facility (existing or proposed) being tested at the transmission facility identified in Section 4.2.1(i) is less than 100 amperes, the Generating Facility shall pass the short circuit test.

4.3 Scoping Meeting

Within five (5) Business Days after the CAISO notifies the Interconnection Customer that if the Generating Facility associated with its Interconnection Request has satisfied the independence test set forth in Section 4.2, the CAISO shall establish a date agreeable to the Interconnection Customer and the applicable Participating TO(s) for the Scoping Meeting. With input from the Participating TO, the CAISO shall evaluate whether the Interconnection Request is at or near the boundary of an affected Participating TO(s)' service territory or of any other Affected System(s) so as to potentially affect such third parties, and, if such is the case, the CAISO shall invite the affected Participating TO(s) and/or Affected System Operator(s), in accordance with Section 3.7, to the Scoping Meeting by informing such third parties, as soon as practicable, of the time and place of the scheduled Scoping Meeting.

The purpose of the Scoping Meeting shall be to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The applicable Participating TO(s) and the CAISO will bring to the meeting, as reasonably necessary to accomplish its purpose, technical data, including, but not limited to, (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues. The Interconnection Customer will bring to the Scoping Meeting, in addition to the technical data in Attachment A to Appendix 1, any system studies previously performed. The applicable Participating TO(s), the CAISO, and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. The CAISO shall prepare minutes from the meeting, and provide an opportunity for other attendees and the Interconnection Customer to confirm the accuracy thereof. The Scoping Meeting may be omitted by agreement of the Interconnection Customer, Participating TO, and the CAISO.

The CAISO shall, no later than five (5) Business Days after the Scoping Meeting (or agreement to forego such Scoping Meeting), provide the Interconnection Customer with a Independent Study Process Study Agreement (in the form set forth in Appendix 6 to the), which shall contain an outline of the scope of the system impact and facilities studies and a non-binding good faith estimate of the cost to perform the studies. The Interconnection Customer shall return the executed Independent Study Process Study Agreement or

request an extension of time for good cause within thirty (30) Business Days thereafter, or the Interconnection Request shall be deemed withdrawn.

4.4 System Impact Study

- 4.4.1 The system impact study will consist of a short circuit analysis, a stability analysis, a power flow analysis, an assessment of the potential magnitude of financial impacts, if any, on Local Furnishing Bonds, and a proposed resolution, and any other studies that are deemed necessary.
- 4.4.2 The system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested Interconnection Service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the Interconnection.
- 4.4.3 The system impact study shall provide a list of Interconnection Facilities and Reliability

 Network Upgrades that are required as a result of the Interconnection Request along with
 a non-binding good faith estimate of cost responsibility and the amount of construction
 time required. The good faith estimate will be based on the Per Unit Costs as described
 in Section 6.4.
- 4.4.4 The system impact study will be completed and the results transmitted to the Interconnection Customer within ninety (90) calendar days after the execution of an Independent Study Process Study Agreement. The Interconnection Customer shall execute the agreement(s) and deliver them to the CAISO, and shall make its initial posting of Interconnection Financial Security in accordance with Section 11.2, or its Interconnection Request shall be deemed withdrawn.
- 4.4.5 If requested by the Interconnection Customer, a Results Meeting shall be held among the CAISO, the applicable Participating TO(s), and the Interconnection Customer to discuss the results of the system impact study report, including assigned cost responsibility. The CAISO shall prepare minutes from the meeting. Any such Results Meeting will be held within 20 Business Days of the date the system impact study report is provided to the Interconnection Customer.
- 4.4.6 For Interconnection Requests under the Independent Study Process, the initial posting of Interconnection Financial Security described in Section 11.2 will be based on the cost responsibility for Network Upgrades, and Participating TO's Interconnection Facilities set forth in the system impact study. If the system impact study is waived, then such posting will be based upon the cost responsibility set forth in the facilities study described in Section 4.5.

4.5 Facilities Study

4.5.1 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement, and construction work (including overheads) needed to implement the conclusions of the system impact study, including, if applicable, the cost of remedial measures that address the financial impacts, if any, on Local Furnishing Bonds. The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Participating TO's Interconnection Facilities and upgrades necessary to accomplish the Interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities or for effecting remedial measures that address the financial impacts, if any, on Local Furnishing Bonds.

- 4.5.2 The facilities study may be waived if the system impact study does not identify any Interconnection Facilities and Reliability Network Upgrades.
- 4.5.3 The facilities study will be completed within ninety (90) calendar days after the

 Interconnection Customer posts Interconnection Financial Security in accordance with

 Section11.2 where Network Upgrades are identified. In cases where no Network

 Upgrades are identified and the required facilities are limited to Interconnection Facilities
 only, the facilities study will be completed within sixty (60) calendar days after the
 Interconnection Customer posts Interconnection Financial Security in accordance with
 Section 11.2.
- 4.5.4 If requested by the Interconnection Customer within ten (10) Business Days of the date of the facilities study report, a Results Meeting shall be held among the CAISO, the applicable Participating TO(s), and the Interconnection Customer to discuss the results of the facilities study report, including assigned cost responsibility. The CAISO shall prepare minutes from the meeting. Any such Results Meeting will be held within twenty (20) Business Days of the date the facilities study report is provided to the Interconnection Customer.
- 4.5.5 For Interconnection Requests under the Independent Study Process, the second posting and third postings of Interconnection Financial Security described in Section 11.3 will be based on the cost responsibility for Network Upgrades and the Participating TO's Interconnection Facilities set forth in the facilities study.

4.6 Deliverability Assessment

Interconnection Customers under the Independent Study Process that request Partial Capacity or Full Capacity Deliverability Status will have a Deliverability Assessment performed as part of the next scheduled Phase I and Phase II Interconnection Studies for Queue Clusters. If the Deliverability Assessment identifies any LDNUs and ADNUs that are triggered by the Interconnection Request, the Interconnection Customer will be responsible to pay its proportionate share of the costs of those Upgrades, pursuant to Sections 6, 7 and 8. If the Generating Facility (or increase in capacity of an existing Generating Facility) achieves its Commercial Operation Date before the Deliverability Assessment is completed and any necessary Delivery Network Upgrades are in service, the proposed Generating Facility (or increase in capacity) will be treated as an Energy-Only Deliverability Status Generating Facility until such Delivery Network Upgrades are in service.

4.7 Extensions of Commercial Operation Date

Extensions of the Commercial Operation Date for Interconnection Requests under the Independent Study Process will not be granted except for circumstances beyond the control of the Interconnection Customer.

Section 5 Fast Track Process

5.1 Applicability and Initiation of Fast Track Process Request

Applicability to a proposed Generating Facility. An Interconnection Customer may request interconnection of a proposed Generating Facility to the CAISO Controlled Grid under the Fast Track Process if the Generating Facility is no larger than 5 MW and is requesting Energy-Only Deliverability Status and if the Interconnection Customer's proposed Generating Facility meets the codes, standards, and certification requirements of Appendices 9 and 10 of this, or if the applicable Participating TO notifies the CAISO that it has reviewed the design for or tested the proposed Small Generating Facility and

has determined that the proposed Generating Facility may interconnect consistent with Reliability Criteria and Good Utility Practice.

Applicability to an existing Generating Facility. If the Interconnection of an existing Generating Facility meets the qualifications for Interconnection under CAISO Tariff Section 25.1(d) or (e) but, at the same time, the Interconnection Customer also seeks to repower or reconfigure the existing Generating Facility in a manner that increases the gross generating capacity by not more than 5 MW, then the Interconnection Customer may request that the Fast Track Process be applied with respect to the repowering or reconfiguration of the existing Generating Facility that results in the incremental increase in MW.

Initiating the Fast Track Interconnection Request. To initiate an Interconnection Request under the Fast Track Process, and have the Interconnection Request considered for validation the Interconnection Customer must provide the CAISO with:

- (i) a completed Interconnection Request as set forth in Appendix 1;
- (ii) a non-refundable processing fee of \$500 and a study deposit of \$1,000; and
- (iii) a demonstration of Site Exclusivity. For the Fast Track Process, such demonstration may include documentation reasonably demonstrating a right to locate the Generating Facility on real estate or real property improvements owned, leased, or otherwise legally held by another.

<u>The CAISO shall review and validate the Fast Track Process Interconnection Request pursuant to Section 5.2.</u>

In the event of a conflict between this Section 5 and another provision of this GIDAP, Section 5 shall govern.

5.2 Initial Review

Within fifteen (15) Business Days after the CAISO notifies the Interconnection Customer that the Interconnection Request is deemed complete, valid, and ready to be studied, the applicable Participating TO shall perform an initial review using the screens set forth in Section 5.3 below, shall notify the Interconnection Customer of the results, and shall include with the notification copies of the analysis and data underlying the Participating TO's determinations under the screens.

5.3 Screens

- 5.3.1 The proposed Generating Facility must pass the following screens to be eligible for Interconnection under this Fast Track Process:
- 5.3.1.1 The proposed Generating Facility's Point of Interconnection must be on the CAISO Controlled Grid.
- 5.3.1.2 For interconnection of a proposed Generating Facility to a radial transmission circuit, the aggregated generation on the circuit, including the proposed Generating Facility, shall not exceed 15 percent of the line section annual peak load as most recently measured at the substation. For purposes of this Section 5.3.1.2, a line section shall be considered as

that portion of a Participating TO's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the transmission line.

- 5.3.1.3 For interconnection of a proposed Generating Facility to the load side of spot network protectors, the proposed Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 percent of a spot network's maximum load or 50 kW. For purposes of this Section 5.3.1.3, a spot network shall be considered as a type of distribution system found in modern commercial buildings for the purpose of providing high reliability of service to a single retail customer.
- 5.3.1.4 The proposed Generating Facility, in aggregation with other generation on the transmission circuit, shall not contribute more than 10 percent to the transmission circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.
- The proposed Generating Facility, in aggregate with other generation on the transmission circuit, shall not cause any transmission protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 percent of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds 87.5 percent of the short circuit interrupting capability.
- The Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the Point of Interconnection).
- 5.3.2 If the proposed interconnection passes the screens and no Upgrades are reasonably anticipated, the Interconnection Request shall be approved. Within fifteen (15) Business Days thereafter, the Participating TO will provide the Interconnection Customer with a Small Generator Interconnection Agreement for execution.
- 5.3.3 If the proposed interconnection fails the screens and no Upgrades are reasonably anticipated, but the CAISO and Participating TO determine that the Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Participating TO shall, within fifteen (15) Business Days, provide the Interconnection Customer with a Small Generator Interconnection Agreement for execution.
- 5.3.4 If the proposed interconnection passes the screens and Upgrades are reasonably anticipated, the CAISO and Participating TO shall provide the Interconnection Customer with the opportunity to attend a customer options meeting as described in Section 5.4.

5.4 Customer Options Meeting

If the CAISO and Participating TO determine the Interconnection Request cannot be approved without modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five (5) Business Day

period after the determination, the CAISO and Participating TO shall notify the Interconnection Customer and provide copies of all data and analyses underlying its conclusion. Within ten (10) Business Days of the CAISO and Participating TO's determination, the CAISO and Participating TO shall offer to convene a customer options meeting with the CAISO and Participating TO to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the CAISO and Participating TO's determination, or at the customer options meeting, the CAISO and Participating TO shall:

- 5.4.1 Offer to perform facility modifications or modifications to the Participating TO's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Participating TO's electric system; or
- 5.4.2 Offer to perform a supplemental review if the CAISO and Participating TO concludes that the supplemental review might determine that the Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review; or
- Obtain the Interconnection Customer's agreement to continue evaluating the
 Interconnection Request under the Independent Study Process or Cluster Study Process.

5.5 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within fifteen (15) Business Days of the offer, and submit a deposit for the estimated costs in an amount reasonably determined by the CAISO and Participating TO. The Interconnection Customer shall be responsible for the CAISO and Participating TO's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the CAISO and Participating TO will return such excess, without interest, within twenty (20) Business Days of the invoice.

- Within ten (10) Business Days following receipt of the deposit for a supplemental review,
 the CAISO and Participating TO will determine if the Small Generating Facility can be interconnected safely and reliably.
- 5.5.1.1 If so, then, within fifteen (15) Business Days of such a determination, the Participating TO

 shall forward a Small Generator Interconnection Agreement to the Interconnection

 Customer for execution.
- If so, and Interconnection Customer facility modifications are required to allow the

 Generating Facility to be interconnected consistent with safety, reliability, and power
 quality standards, the Participating TO shall forward a Small Generator Interconnection
 Agreement to the Interconnection Customer for execution within fifteen (15) Business
 Days after confirmation that the Interconnection Customer has agreed to pay for the
 identified modifications to the Participating TO's electric system.
- 5.5.1.3 If so, and Upgrades to the Participating TO's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards, the Participating TO shall forward a Small Generator

Interconnection Agreement to the Interconnection Customer for execution within fifteen (15) Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.

5.5.2 If not, the Interconnection Request will be deemed withdrawn, without prejudice to the Interconnection Customer resubmitting its Interconnection Request for processing in either a Queue Cluster or under the Independent Study Process.

Section 6 Initial Activities and Phase I of the Interconnection Study Process for Queue Clusters

The provisions of this Section 6 shall apply to all Interconnection Requests except those processed under the Independent Study Process selecting Energy Only Deliverability Status, the Fast Track Process, or the 10 kW inverter process as set forth in Appendix 7.

6.1 Initial Activities Following the Close of the Cluster Application Window

6.1.1 Generator Interconnection Study Process Agreement

Within thirty (30) calendar days of the close of a Cluster Application Window, the CAISO shall provide to each Interconnection Customer with a validated Interconnection Request received during the Cluster Application Window a pro forma Generator Interconnection Study Process Agreement in the form set forth in Appendix 3. The pro forma Generator Interconnection Study Process Agreement shall specify that the Interconnection Customer is responsible for the actual cost of the Interconnection Studies, including reasonable administrative costs, and all requirements of this GIDAP. Within three (3) Business Days following the Scoping Meeting, the Interconnection Customer shall specify for inclusion in the attachment to the Generator Interconnection Study Process Agreement the Point of Interconnection for the Phase I Interconnection Study. Within ten (10) Business Days following the CAISO's receipt of such designation, the CAISO, in coordination with the applicable Participating TOs, shall provide to the Interconnection Customer a signed Generator Interconnection Study Process Agreement. The Interconnection Customer shall execute and deliver to the CAISO the Generator Interconnection Study Process Agreement no later than thirty (30) calendar days after the Scoping Meeting.

6.1.2 Scoping Meeting

Within five (5) Business Days after the CAISO notifies the Interconnection Customer of a Interconnection Request that is complete, valid, and ready for study, the CAISO shall establish a date agreeable to the Interconnection Customer and the applicable Participating TO(s) for the Scoping Meeting. All Scoping Meetings shall occur no later than sixty (60) calendar days after the close of a Cluster Application Window, unless otherwise mutually agreed upon by the Parties. The CAISO shall evaluate whether the Interconnection Request is at or near the boundary of an affected Participating TO(s) service territory or of any other Affected System(s) so as to potentially affect such third parties, and, in such case, the CAISO shall invite the affected Participating TO(s), and/or Affected System Operator(s) in accordance with Section 3.7, to the Scoping Meeting by informing such third parties of the time and place of the scheduled Scoping Meeting as soon as practicable.

The purpose of the Scoping Meeting shall be to discuss reasonable Commercial Operation Dates and alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to analyze such information and to determine the potential feasible Points of Interconnection and eliminate alternatives given resources and available information. The applicable Participating TO(s) and the CAISO will bring to the meeting, as reasonably necessary to accomplish its purpose, the following: (a) such already available technical data, including, but not limited to, (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues, and (b) general information regarding the number, location, and capacity of other Interconnection Requests in the Interconnection Study Cycle that may potentially form a Group Study with the Interconnection Customer's Interconnection Request.

The Interconnection Customer will bring to the Scoping Meeting, in addition to the technical data in Attachment A to Appendix 1, any system studies previously performed. The applicable Participating TO(s), the CAISO and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, the Interconnection Customer shall designate its Point of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

The CAISO shall prepare minutes from the meeting, and provide the Interconnection Customer and the other attendees an opportunity to confirm the accuracy thereof, that will include, at a minimum, discussions among the applicable Participating TO(s) and the CAISO of the expected results and a good faith estimate of the costs for the Phase I Interconnection Study.

6.1.3 Grouping Interconnection Requests

At the CAISO's option, and in coordination with the applicable Participating TO(s), Interconnection Requests received during the Cluster Application Window for a particular year may be studied individually or in a Group Study for the purpose of conducting one or more of the analyses forming the Interconnection Studies. For each Interconnection Study within an Interconnection Study Cycle, the CAISO may develop one or more Group Studies. A Group Study will include, at the CAISO's sole judgment after coordination with the applicable Participating TO(s), Interconnection Requests that electrically affect one another with respect to the analysis being performed and the annual Transmission Plan, without regard to the nature of the underlying Interconnection Service. The CAISO may also, in its sole judgment after coordination with the applicable Participating TO(s), conduct an Interconnection Study for an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Generating Facility from other Generating Facilities with Interconnection Requests in the Cluster Application Window for a particular year.

An Interconnection Request's inclusion in a Group Study will not relieve the CAISO or Participating TO(s) from meeting the timelines for conducting the Phase I Interconnection Study provided in the . Group Studies shall be conducted in such a manner to ensure the

efficient implementation of the annual CAISO Transmission Plan in light of the transmission system's capabilities at the time of each study.

6.2. Scope and Purpose of Phase I Interconnection Study

The Phase I Interconnection Study shall:

- (i) evaluate the impact of all Interconnection Requests received during the Cluster Application Window for a particular year on the CAISO Controlled Grid,
- (ii) preliminarily identify all LDNU and RNU needed to address the impacts on the CAISO Controlled Grid of the Interconnection Requests,
- (iii) preliminarily identify for each Interconnection Request required Interconnection Facilities,
- (iv) assess the Point of Interconnection selected by each Interconnection Customer and potential alternatives to evaluate potential efficiencies in overall transmission upgrades costs,
- (v) establish the maximum cost responsibility for LDNUs and RNUs assigned to each Interconnection Request, until the issuance of the Phase II Interconnection Study report.
- (vi) provide a good faith estimate of the cost of Interconnection Facilities for each Interconnection Request, and
- (vii) provide a cost estimate of ADNUs for each Generating Facility in a Queue Cluster Group Study.

The Phase I Interconnection Study will consist of a short circuit analysis, a stability analysis to the extent the CAISO and applicable Participating TO(s) reasonably expect transient or voltage stability concerns, a power flow analysis, including off-peak analysis, and an On-Peak Deliverability Assessment (and Off-Peak Deliverability Assessment which will be for informational purposes only) for the purpose of identifying LDNUs and estimating the cost of ADNUs, as applicable.

The Phase I Interconnection Study will state for each Group Study or Interconnection Request studied individually (i) the assumptions upon which it is based, (ii) the results of the analyses, and (iii) the requirements or potential impediments to providing the requested Interconnection Service to all Interconnection Requests in a Group Study or to the Interconnection Request studied individually.

The Phase I Interconnection Study will provide, without regard to the requested Commercial Operation Dates of the Interconnection Requests, a list of RNUs and LDNUs to the CAISO Controlled Grid that are preliminarily identified as required as a result of the Interconnection Requests in a Group Study or as a result of any Interconnection Request studied individually and Participating TO's Interconnection Facilities associated with each Interconnection Request, the estimated costs of ADNUs, if applicable and an estimate of any other financial impacts (i.e., on Local Furnishing Bonds).

- 6.3 Identification of And Cost Allocation for Network Upgrades
- 6.3.1 Reliability Network Upgrades (RNUs).

The CAISO, in coordination with the applicable Participating TO(s), will perform short circuit and stability analyses for each Interconnection Request either individually or as part of a Group Study to preliminarily identify the RNUs needed to interconnect the Generating Facilities to the CAISO Controlled Grid. The CAISO, in coordination with the applicable Participating TO(s), shall also perform power flow analyses, under a variety of system conditions, for each Interconnection Request either individually or as part of a Group Study to identify Reliability Criteria violations, including applicable thermal overloads, that must be mitigated by RNUs.

The cost of all RNUs identified in the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of short circuit related RNUs identified through a Group Study shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the short circuit duty contribution of each Generating Facility. The estimated costs of all other RNUs identified through a Group Study shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request. The estimated costs of R N Us identified as a result of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request.

6.3.2 Delivery Network Upgrades.

<u>6.3.2.1 The On-Peak Deliverability Assessment.</u>

The CAISO, in coordination with the applicable Participating TO(s), shall perform On-Peak Deliverability Assessments for Interconnection Customers selecting Full Capacity or Partial Capacity Deliverability Status in their Interconnection Requests. The On-Peak Deliverability Assessment shall determine the Interconnection Customer's Generating Facility's ability to deliver its Energy to the CAISO Controlled Grid under peak load conditions, and identify preliminary Delivery Network Upgrades required to provide the Generating Facility with Full Capacity or Partial Capacity Deliverability Status. The Deliverability Assessment will consist of two rounds, the first of which will identify any transmission constraints that limit the Deliverability of the Generating Facilities in the Group Study and will identify LDNUs to relieve the local constraints, and second of which will determine ADNUs to relieve the area constraints.

6.3.2.1.1 Local Delivery Network Upgrades

The On-Peak Deliverability Assessment will be used to establish the maximum cost responsibility for LDNUs for each Interconnection Customer selecting Full Capacity or Partial Capacity Deliverability Status. Deliverability of a new Generating Facility will be assessed on the same basis as all existing resources interconnected to the CAISO Controlled Grid.

The methodology for the On-Peak Deliverability Assessment will be published on the CAISO Website or, when effective, included in a CAISO Business Practice Manual. The On-Peak Deliverability Assessment does not convey any right to deliver electricity to any specific customer or Delivery Point.

The cost of LDNUs identified in the On-Peak Deliverability Assessment as part of a Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of Delivery Network Upgrades identified in the On-Peak Deliverability Assessment shall be assigned to all Interconnection Requests selecting Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on the Delivery Network Upgrades as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

6.3.2.1.2 Area Delivery Network Upgrades

The On-Peak Deliverability Assessment will be used in the Phase I Interconnection Studies to identify those facilities necessary to provide the incremental Deliverability between the level of TP Deliverability and such additional amount of Deliverability as is necessary for the MW capacity amount of generation targeted in the Phase I Interconnection Studies. Based on such facility cost estimates, the CAISO will calculate a rate for ADNU costs equal to the facility cost estimate divided by the additional amount of Deliverability targeted in the study. The Phase I Interconnection Studies shall provide a cost estimate for each Interconnection Customer which equals the rate multiplied by the requested deliverable MW capacity of the Generating Facility in the Interconnection Request.

6.3.2.1.3 [Intentionally Omitted]

6.3.2.2 Off-Peak Deliverability Assessment.

The CAISO, in coordination with the applicable Participating TO(s), shall perform an Off-Peak Deliverability Assessment to identify transmission upgrades in addition to those Delivery Network Upgrades identified in the On-Peak Deliverability Assessment, if any, for a Group Study or individual Phase I Interconnection Study that includes one or more Location Constrained Resource Interconnection Generators (LCRIG), where the fuel source or source of energy for the LCRIG substantially occurs during off-peak conditions.

The transmission upgrades identified under this Section shall comprise those needed for the full maximum megawatt electrical output of each proposed new LCRIG or the amount of megawatt increase in the generating capacity of each existing LCRIG as listed by the Interconnection Customer in its Interconnection Request, whether studied individually or as a Group Study, to be deliverable to the aggregate of Load on the CAISO Controlled Grid under the Generation dispatch conditions studied. The methodology for the Off-Peak Deliverability Assessment will be published on the CAISO Website or, if applicable, included in a CAISO Business Practice Manual.

The CAISO will perform the Off-Peak Deliverability Assessment for Interconnection Customer informational purposes only, and any such upgrades identified in the Off-Peak Deliverability Assessment as part of the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of such upgrades identified in the assessment will be referred to as "off peak Deliverability transmission upgrades," the description of such upgrades in any report will be conceptual in nature, and such transmission upgrades will not be included in a plan of service within the applicable Interconnection Study report.

The cost of all transmission upgrades identified in the Off-Peak Deliverability Assessment performed during the course of the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. However, because these transmission upgrades shall be conceptual in nature only these upgrades shall be treated as follows:

- (i) these transmission upgrades will not be required for the proposed Generating

 Facility (or proposed increase in capacity) that is the subject to the

 Interconnection Request to achieve Full Capacity Deliverability Status;
- (ii) the estimated costs for these transmission upgrades shall not be assigned to any Interconnection Customer in an Interconnection Study report, such costs shall not be considered in determining the cost responsibility or maximum cost responsibility of the Interconnection Customer for Network Upgrades under this or in determining the Interconnection Financial Security than an Interconnection Customer must post under Section 11;
- (iii) and the applicable Participating TO(s) shall not be responsible under this for financing or constructing such transmission upgrades.

6.4 Use Of Per Unit Costs To Estimate Network Upgrade and PTO Interconnection Facilities Costs

Each Participating TO, under the direction of the CAISO, shall publish per unit costs for facilities generally required to interconnect Generation to their respective systems.

These per unit costs shall reflect the anticipated cost of procuring and installing such facilities during the current Interconnection Study Cycle, and may vary among Participating TOs and within a Participating TO Service Territory based on geographic and other cost input differences, and should include an annual adjustment for the following ten (10) years to account for the anticipated timing of procurement to accommodate a potential range of Commercial Operation Dates of Interconnection Requests in the Interconnection Study Cycle. The per unit costs will be used to develop the cost of RNUs, LDNUs, ADNUs and Participating TO's Interconnection Facilities.

Deviations from a Participating TO's benchmark per unit costs will be permitted if a reasonable explanation for the deviation is provided and there is no undue discrimination.

Prior to adoption and publication of final per unit costs for use in the Interconnection Study Cycle, the CAISO shall publish to the CAISO Website draft per unit costs, including non-confidential information regarding the bases therefore, hold a stakeholder meeting to address the draft per unit costs, and permit stakeholders to provide comments on the draft per unit costs. A schedule for the release and review of per unit costs is set forth in Appendix 5.

6.5 [Intentionally Omitted]

6.6 Phase I Interconnection Study Procedures

The CAISO shall coordinate the Phase I Interconnection Study with applicable Participating TO(s) pursuant to Section 3.2 and any Affected System that is affected by the Interconnection Request pursuant to Section 3.7. Existing studies shall be used to the extent practicable when conducting the Phase I Interconnection Study. The CAISO will coordinate Base Case development with the applicable Participating TOs to ensure the Base Cases are accurately developed. The CAISO shall use Reasonable Efforts to complete and issue to Interconnection Customers the Phase I Interconnection Study report within two hundred (200) days after the commencement of the Phase I Interconnection Study for Queue Cluster 5 and within one hundred seventy (170) days

after the annual commencement of the Phase I Interconnection Study beginning with Queue Cluster 6; however, each individual study or Group Studies may be completed prior to this maximum time where practicable based on factors, including, but not limited to, the number of Interconnection Requests in the Cluster Application Window, study complexity, and reasonable availability of subcontractors as provided under Section 15.2. The CAISO will share applicable study results with the applicable Participating TO(s) for review and comment and will incorporate comments into the study report. The CAISO will issue a final Phase I Interconnection Study report to the Interconnection Customer. At the time of completion of the Phase I Interconnection Study, the CAISO may, at the Interconnection Customer's request, determine whether the provisions of Section 8.6 apply.

At any time the CAISO determines that it will not meet the required time frame for completing the Phase I Interconnection Study due to the large number of Interconnection Requests in the two associated Cluster Application Windows, study complexity, or unavailability of subcontractors on a reasonable basis to perform the study in the required time frame, the CAISO shall notify the Interconnection Customers as to the schedule status of the Phase I Interconnection Study and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, the CAISO shall provide the Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Phase I Interconnection Study, subject to confidentiality arrangements consistent with Section 15.1.

6.7 Phase I Interconnection Study Results Meeting

Within thirty (30) calendar days of issuing the Phase I Interconnection Study report to the Interconnection Customer, the applicable Participating TO(s), the CAISO and the Interconnection Customer shall hold a Results Meeting to discuss the results of the Phase I Interconnection Study, including assigned cost responsibility. The CAISO shall prepare the minutes from the meetings, and provide the Interconnection Customer and the other attendees an opportunity to confirm the accuracy thereof.

Should the Interconnection Customer provide written comments on the final Phase I Interconnection Study report within ten (10) Business Days of receipt of the report, but in no event less than three (3) Business Days before the Results Meeting conducted to discuss the report, whichever is sooner, the ISO will address the written comments in the Phase I Interconnection Study Results Meeting. Should the Interconnection Customer provide comments at any later time (up to the time of the Results Meeting), then such comments shall be considered informal inquiries to which the CAISO will provide informal, informational responses at the Results Meeting, to the extent possible.

The Interconnection Customer may submit, in writing, additional comments on the final Phase I Interconnection Study report up to (3) Business Days following the Results Meeting. Based on any discussion at the Results Meeting and any comments received, the CAISO (in consultation with the applicable Participating TO(s)) will determine, in accordance with Section 6.8, whether it is necessary to follow the final Phase I Interconnection Study report with a revised study report or an addendum. I The CAISO

will issue any such revised report or addendum to the Interconnection Customer no later than fifteen (15) Business Days following the Results Meeting.

6.7.1 Commercial Operation Date.

At the Results Meeting, the Interconnection Customer shall provide a schedule outlining key milestones including environmental survey start date, expected environmental permitting submittal date, expected procurement date of project equipment, back-feed date for project construction, and expected project construction date. This will assist the parties in determining if Commercial Operation Dates are reasonable. If major Interconnection Customer's Interconnection Facilities for the Generating Facility have been identified in the Phase I Interconnection Study, such as telecommunications equipment to support a possible Special Protection System (SPS), distribution feeders to support back feed, new substation, and/or expanded substation work, permitting and material procurement lead times may result in the need to alter the proposed Commercial Operation Date. The Parties may agree to a new Commercial Operation Date. In addition, where an Interconnection Customer intends to establish Commercial Operation separately for different Electric Generating Units or project phases at its Generating Facility, it may only do so in accordance with an implementation plan agreed to in advance by the CAISO and Participating TO, which agreement shall not be unreasonably withheld. Where the parties cannot agree, the Commercial Operation Date determined reasonable by the CAISO, in coordination with the applicable Participating TO(s), will be used for the Phase II Interconnection Study where the changed Commercial Operation Date is needed to accommodate the anticipated completion, assuming Reasonable Efforts by the applicable Participating TO(s), of necessary Reliability Network Upgrades and/or Participating TO's Interconnection Facilities, pending the outcome of any relief sought by the Interconnection Customer under Section 15.5. The Interconnection Customer must notify the CAISO within five (5) Business Days following the Results Meeting that it is initiating dispute procedures under Section 15.5.

6.7.2 Modifications.

- At any time during the course of the Interconnection Studies, the Interconnection

 Customer, the applicable Participating TO(s), or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the applicable Participating TO(s), the CAISO, and Interconnection Customer, such acceptance not to be unreasonably withheld, the CAISO shall modify the Point of Interconnection and/or configuration in accordance with such changes without altering the Interconnection Request's eligibility for participating in Interconnection Studies.
- At the Phase I Interconnection Study Results Meeting, the Interconnection Customer should be prepared to discuss any desired modifications to the Interconnection Request.

 After the issuance of the final Phase I Interconnection Study, but no later than ten (10)

 Business Days following the Phase I Interconnection Study Results Meeting, the Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The CAISO will forward the Interconnection Customer's modification to the applicable Participating TO(s) within one (1) Business Day of receipt.

Modifications permitted under this Section shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project pursuant to Section 7.1; (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration.

For any modification other than these, the Interconnection Customer may first request that the CAISO evaluate whether such modification is a Material Modification. In response to the Interconnection Customer's request, the CAISO, in coordination with the affected Participating TO(s) and, if applicable, any Affected System Operator, shall evaluate the proposed modifications prior to making them and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except for that specified by the CAISO in an Interconnection Study or otherwise allowed under this Section, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

The Interconnection Customer shall remain eligible for the Phase II Interconnection Study if the modifications are in accordance with this Section.

6.7.3 Determination of Impact of Modifications Decreasing Generating Capacity Output or Deliverability Status Reductions on Calculation of Initial Financial Security Posting

After receiving from the Interconnection Customer any modification elections involving decreases in electrical output (MW) of the Generating Facility and/or changes (*i.e.*, reductions) in Deliverability status as permitted in Section 7.1, the CAISO, in coordination with the applicable Participating TO(s), will determine, based on best engineering judgment, whether such modifications will eliminate the need for any Delivery Network Upgrades identified in the Phase I Interconnection Study report. The CAISO and applicable Participating TO(s) will not conduct any re-studies in making this determination.

If the CAISO and applicable Participating TO(s) should determine that one or more Delivery Network Upgrades identified in the Phase I Interconnection Study are no longer needed, then, solely for purposes of calculating the amount of the Interconnection Customer's initial Financial Security Posting under Section 11.2, such Delivery Network Upgrade(s) will be considered to be removed from the plan of service described in the Interconnection Customer's Phase I Interconnection Study report and the cost estimates for such upgrades shall not be included in the calculation of Interconnection Financial Security in Section 11.2. The CAISO will inform in a timely manner any Interconnection Customers so affected, and provide the Interconnection Customers with written notice of the revised initial Interconnection Financial Security posting amounts. No determination under this Section shall affect either (i) the timing for the initial Interconnection Financial Security posting or (ii) the maximum value for the Interconnection Customer's total cost responsibility for Network Upgrades established by the Phase I Interconnection Study report.

6.8 Revisions and Addenda to Final Interconnection Study Reports

6.8.1 Substantial Error or Omissions; Revised Study Report

Should the CAISO discover, through written comments submitted by an Interconnection Customer or otherwise, that a final Phase I or Phase II Interconnection Study Report (which can mean a final Phase I or Phase II Interconnection Study Report for cluster studies or a final System Impact or Facilities report for the Independent Study Process) contains a substantial error or omission, the CAISO will cause a revised final report to be issued to the Interconnection Customer. A substantial error or omission shall mean an error or omission that results in one or more of the following:

- (i) understatement or overstatement of the Interconnection Customer's cost responsibility for either Network Upgrades or Participating TO Interconnection Facilities by more than five (5) percent or one million dollars (\$1,000,000), whichever is greater; or
- (ii) results in a delay to the schedule by which the Interconnection Customer can achieve Commercial Operation, based on the results of the final Interconnection Study, by more than one year.

A dispute over the plan of service by an Interconnection Customer shall not be considered a substantial error or omission unless the Interconnection Customer demonstrates that the plan of service was based on an invalid or erroneous study assumption that meets the criteria set forth above.

6.8.2 Other Errors or Omissions; Addendum

If an error or omission in an Interconnection Study report (for either the cluster process or Independent Study Process) is not a substantial error or omission, the CAISO shall not issue a revised final Interconnection Study report, although the error or omission may result in an adjustment of the corresponding Interconnection Financial Security. Rather, the CAISO shall document such error or omission and make any appropriate correction by issuing an addendum to the final report.

The CAISO and applicable Participating TO shall also incorporate, as needed, any corrected information pertinent to the terms or conditions of the GIA in the draft GIA provided to an Interconnection Customer pursuant to Section 13.

6.8.3 Only Substantial Errors or Omissions Adjust Posting Dates

Unless the error or omission is a substantial error resulting in the issuance of a revised final Interconnection Study report, the correction of an error or omission shall not operate to delay any deadline for posting Interconnection Financial Security set forth in Section 11. In the case of a substantial error or omission resulting in the issuance of a revised final Phase I or Phase II Interconnection Study report, the deadline for posting Interconnection Financial Security shall be extended as set forth in Section 11. In addition to issuing a revised final report, the CAISO will promptly notify the Interconnection Customer of any revised posting amount and extended due date occasioned by a substantial error or omission.

An Interconnection Customer's dispute of a CAISO determination that an error or omission in a final Study report does not constitute substantial error shall not operate to change the amount of Interconnection Financial Security that the Interconnection

Customer must post or to postpone the applicable deadline for the Interconnection
Customer to post Interconnection Financial Security. In case of such a dispute, the
Interconnection Customer shall post the amount of Interconnection Financial Security in
accordance with Section 11, subject to refund in the event that the Interconnection
Customer prevails in the dispute.

Section 7 Activities in Preparation for Phase II

Within ten (10) Business Days following the Phase I Interconnection Study Results

Meeting, the Interconnection Customer shall submit to the CAISO the completed form of

Appendix B (Data Form to Be Provided by the Interconnection Customer Prior to

Commencement of the Phase II Interconnection Study) to the Generator Interconnection

Study Process Agreement. Within such Appendix B, the Interconnection Customer shall
provide the information in Sections 7.1 and, if the for Interconnection Customers seeking

Full or Partial Deliverability Capacity, 7.2 below:

7.1 Confirmation or Modification of Deliverability Status

Within such Appendix B, the Interconnection Customer shall either

(a) confirm the desired Deliverability Status that the Interconnection Customer had previously designated in the completed form of Appendix A to the Generator Interconnection Study Process Agreement (Assumptions Used in Conducting the Phase I Interconnection Study); or

(b) change the desired Deliverability Status in one of the following ways:

- (i) from Full Capacity Deliverability Status to Energy-Only Deliverability Status:
- (ii) from Full Capacity Deliverability Status to Partial Capacity Deliverability
 Status with a specified fraction of Full Capacity Deliverability Status;
- (iii) from Partial Capacity Deliverability Status to Energy-Only Deliverability Status; or
- (iv) reduce Partial Capacity Deliverability Status to a lower fraction of Full Capacity Deliverability Status.

7.2 Full/Partial Capacity Deliverability Options for Interconnection Customers

This section applies to Interconnection Requests for which the Generating Facility Deliverability Status is either Full Capacity or Partial Capacity.

Within such Appendix B, the Interconnection Customer must select one of two options with respect to its Generating Facility:

Option (A), which means that the Generating Facility requires TP Deliverability to be able to continue to Commercial Operation. If the Interconnection Customer selects Option (A), then the Interconnection Customer shall be required to make an initial posting of Interconnection Financial Security under Section 11.2 for the cost responsibility assigned to it in the Phase I Interconnection Study for RNUs and LDNUs; or,

Option (B), which means that the Interconnection Customer will assume cost responsibility for Delivery Network Upgrades (both ADNUs and LDNUs, to the extent applicable) without cash repayment under Section 14.2.1 to the extent that sufficient TP Deliverability is not allocated to the Generating Facility to provide its requested Deliverability Status. If the Interconnection Customer selects Option (B) then the Interconnection Customer shall be required to make an initial posting of Interconnection Financial Security under Section 11.2 for the cost responsibility assigned to it in the Phase I Interconnection Study for RNUs, LDNUs and ADNUs.

7.3 Postings and Cost Estimates for Network Upgrades

Until such time as the Phase II Interconnection Study report is issued to the Interconnection Customer, the costs assigned to Interconnection Customers for RNUs and LDNUs in the Phase I Interconnection Study report shall establish the maximum value for

- (i) each Interconnection Customer's cost responsibility; and
- (ii) the initial posting of Interconnection Financial Security required from each Interconnection Customer under Section 11.2 for such Network Upgrades.

The Phase I Interconnection Study report shall set forth the applicable cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall be the basis for the initial Interconnection Financial Security Posting under Section 11.2

7.4 Reassessment Process

- 7.4.1 The ISO will perform a reassessment of the Phase I Interconnection Study base case prior to the beginning of the GIDAP Phase II Interconnection Studies. The reassessment will evaluate the impacts on those Network Upgrades identified in previous interconnection studies and assumed in the Phase I Interconnection Study of:
 - (a) Interconnection Request withdrawals occurring after the completion of the Phase II Interconnection Studies for the immediately preceding Queue Cluster;
 - (b) the performance of earlier queued Interconnection Customers with executed GIAs with respect to required milestones and other obligations.
 - (c) compliance of earlier queued Interconnection Customers that were allocated TP Deliverability under this GIDAP with the retention criteria;
 - (d) the results of the TP Deliverability allocation from the prior Interconnection Study cycle; and,
 - (e) transmission additions and upgrades approved in the most recent TPP cycle.

The reassessment will be used to develop the base case for the Phase II Interconnection Study

7.4.2 Where, as a consequence of the reassessment, the ISO determines that changes to the previously identified Delivery Network Upgrades in Queue Clusters earlier than the current Interconnection Study Cycle will cause changes to plans of service set out in executed GIAs, such changes will serve as a basis for amendments to GIAs.

Section 8 Phase II Interconnection Study And TP Deliverability Allocation Processes

The provisions of this Section 8 shall apply to all Interconnection Requests under this GIDAP except those processed under the Independent Study Process selecting Energy Only Deliverability Status, the Fast Track Process, or the 10 kW inverter process.

8.1 Scope Of Phase II Interconnection Study

8.1.1 Purpose of the Phase II Interconnection Study

The CAISO, in coordination with the applicable Participating TO(s), will conduct a Phase II Interconnection Study that will incorporate eligible Interconnection Requests from the previous Phase I Interconnection Study. The Phase II Interconnection Study shall:

- (i) update, as necessary, analyses performed in the Phase I Interconnection Studies to account for the withdrawal of Interconnection Requests from the current Queue Cluster;
- (ii) identify final RNUs needed to physically and reliably interconnect the Generating Facilities and provide final cost estimates;
- (iii) identify final LDNUs needed to interconnect those Generating Facilities selecting Full Capacity or Partial Capacity Deliverability Status and provide final cost estimates,
- (iv) identify final ADNUs for Interconnection Customers selecting Option (B), as provided below and provide revised cost estimates;
- (v) identify, for each Interconnection Request, the Participating TO's Interconnection Facilities for the final Point of Interconnection and provide a +/-20% cost estimate; and
- (vi) coordinate in-service timing requirements based on operational studies in order to facilitate achievement of the Commercial Operation Dates of the Generating Facilities.

The Phase II Interconnection Study report shall set forth the applicable cost estimates for RNUs, LDNUs, ADNUs and Participating TOs Interconnection Facilities that shall be the basis for Interconnection Financial Security Postings under Section 11.2 and 11.3 Where the cost estimations applicable to the total of RNUs and LDNUs are based upon the Phase I Interconnection Study (because the cost estimation for the subtotal of RNUs and LDNUs were lower and so establish maximum cost responsibility under Section 10.1), the Phase II Interconnection Study report shall recite this fact.

8.1.2 Interim Energy-Only Interconnection until DNUs Completed

If it is determined that the Delivery Network Upgrades cannot be completed by the Interconnection Customer's identified Commercial Operation Date, the Interconnection Study will include interim mitigation measures necessary to allow the Generating Facility to interconnect as an energy-only resource until the Delivery Network Upgrades for the Generating Facility are completed and placed into service, unless interim partial capacity deliverability measures are developed pursuant to Section 8.1.4.

8.1.3 Cost Estimation Detail

With respect to the items detailed in 8.1.1, he Phase II Interconnection Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work, including the financial impacts (i.e., on Local Furnishing Bonds), if any, and schedule for effecting remedial measures that address such financial impacts, needed on the CAISO Controlled Grid to implement the conclusions of the updated Phase II Interconnection Study technical analyses in accordance with Good Utility

Practice to physically and electrically connect the Interconnection Customer's Interconnection Facilities to the CAISO Controlled Grid. The Phase II Interconnection Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Participating TO's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

8.1.4 Operational Deliverability Assessment

The CAISO will perform an operational partial and interim Deliverability Assessment (operational Deliverability Assessment) as part of the Phase II Interconnection Study. The operational Deliverability Assessment will be performed for each applicable Queue Cluster Group Study group for each applicable study year through the prior year before all of the required Delivery Network Upgrades are in-service. The CAISO will consider operational Deliverability Assessment results stated for the first year in the pertinent annual Net Qualifying Capacity process that the CAISO performs for the next Resource Adequacy Compliance Year. The study results for any other years studied in operational Deliverability Assessment will be advisory and provided to the Interconnection Customer for its use only and for informational purposes only.

The CAISO will publish the methodology under which the CAISO will perform the operational Deliverability assessment on the ISO Website or within a Business Practice Manual.

8.2 Determining Phase II Network Upgrades

8.2.1 Reliability Network Upgrades and Local Delivery Network Upgrades

RNUs and LDNUs will be identified on the basis of all Interconnection Customers in the current Queue Cluster regardless of whether they have selected Option (A) or (B).

8.2.2 Area Delivery Network Upgrades

The Phase II Interconnection Study will identify ADNUs for Interconnection Customers who have selected Option (B). The Deliverability Assessment Base Case for the Phase II Interconnection Study will include Option (A) Generating Facilities in the current Interconnection Study Cycle and earlier queued Generating Facilities that will utilize TP Deliverability in a total amount that fully utilizes but does not exceed the available TP Deliverability.

If the MW capacity of the Option (A) Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area is less than or equal to the total TP Deliverability in any electrical area, the Deliverability Assessment Base Case will include all Option (A) and earlier queued Generating Facilities in the electrical area.

If the MW capacity of the Option (A) Generating Facilities and earlier queued Generating Facilities utilizing TP Deliverability in an area exceeds the TP Deliverability in any electrical area, the Deliverability Assessment Base Case will include a representative subset of Generating Facilities that fully utilizes but does not exceed the TP Deliverability.

After the CAISO has modeled the Option (A) Generating Facilities, as described above, the CAISO will add Option (B) Generating Facilities to the Deliverability Assessment Base Case. ADNUs that are identified as needed for each electrical area shall be assigned to Option (B) Generating Facilities based upon their flow impacts.

8.3 Cost Responsibility for Reliability Network Upgrades

Cost responsibility for final Reliability Network Upgrades identified in the Phase II Interconnection Study of an Interconnection Request shall be assigned to Interconnection Customers regardless of whether the Interconnection Customer has selected Option (A) or (B) or Energy Only Deliverability Status, as follows:

- (i) The cost responsibility for final short circuit related Reliability Network Upgrades shall be assigned to all Interconnection Requests in the Group Study pro rata on the basis of short circuit duty contribution of each Generating Facility.
- (ii) The cost responsibility for all other final Reliability Network Upgrades shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request.

8.4 Cost Responsibility for Local Delivery Network Upgrades

The cost responsibility for Local Delivery Network Upgrades identified in the On-Peak Deliverability Assessment as part of the Phase II Interconnection Study shall be assigned to all Interconnection Requests selecting Full Capacity or Partial Capacity Deliverability Status, regardless of whether the Interconnection Customer has selected Option (A) or (B), based on the flow impact of each such Generating Facility on each Local Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

8.4.1 Cost Responsibility for Area Delivery Network Upgrades

The cost responsibility for Area Delivery Network Upgrades identified in the On-Peak Deliverability Assessment as part of Phase II Interconnection Study shall be assigned to Interconnection Customers who have selected Option (B) Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Area Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

The cost estimate provided in the Phase II Interconnection Study shall establish the basis for the second Interconnection Financial Security Posting for Interconnection Customers selecting Option (B).

8.5 Phase II Interconnection Study Procedures

The CAISO shall coordinate the Phase II Interconnection Study with applicable Participating TO(s) and any Affected System that is affected by the Interconnection Request pursuant to Section 3.7. Existing studies shall be used to the extent practicable when conducting the Phase II Interconnection Study. The CAISO will coordinate Base Case development with the applicable Participating TOs to ensure the Base Cases are accurately developed. The CAISO shall use Reasonable Efforts to commence the Phase II Interconnection Study by May 1 of each year, and to complete and issue to Interconnection Customers the Phase II Interconnection Study report within two hundred

and five (205) calendar days after the annual commencement of the Phase II Interconnection Study. The CAISO will share applicable study results with the applicable Participating TO(s), for review and comment, and will incorporate comments into the study report. The CAISO will issue a final Phase II Interconnection Study report to the Interconnection Customer.

At the request of the Interconnection Customer or at any time the CAISO determines that it will not meet the required time frame for completing the Phase II Interconnection Study, the CAISO shall notify the Interconnection Customer as to the schedule status of the Phase II Interconnection Study and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, the CAISO shall provide the Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Phase II Interconnection Study, subject to confidentiality arrangements consistent with Section 15.1.

8.6 Accelerated Phase II Interconnection Study Process

The Phase II Interconnection Study shall be completed within one hundred fifty (150) calendar days following the later of (1) the posting of the initial Interconnection Financial Security or (2) the completion of the re-assessment in preparation for the Phase II Interconnection Study under Section 7.4.

8.7 Results Meeting With The CAISO And Applicable PTO(s)

Within thirty (30) calendar days of providing the final Phase II Interconnection Study report to the Interconnection Customer, the applicable Participating TO(s), the CAISO and the Interconnection Customer shall meet to discuss the results of the Phase II Interconnection Study, including selection of the final Commercial Operation Date.

Should the Interconnection Customer provide written comments on the final Phase II Interconnection Study report within ten (10) Business Days of receipt of the report, but in no case less than three (3) Business Days before the Results Meeting, whichever is sooner, then the ISO will address the written comments in the Phase II Interconnection Study Results Meeting. Should the Interconnection Customer provide comments at any later time (up to the time of the Results Meeting), then such comments shall be considered informal inquiries to which the CAISO will provide informal, informational responses at the Results Meeting, to the extent possible.

The Interconnection Customer may submit, in writing, additional comments on the final Phase II Interconnection Study report up to three (3) Business Days following the Results Meeting. Based on any discussion at the Results Meeting and any comments received, the CAISO (in consultation with the applicable Participating TO(s)) will determine, in accordance with Section 6.8, whether it is necessary to follow the final Phase II Interconnection Study Report with a revised study report or an addendum to the report. The CAISO will issue any such revised report or addendum no later than fifteen (15) Business Days following the Results Meeting.

8.8 [Intentionally Omitted]

8.9 Allocation Process for TP Deliverability

After the Phase II Interconnection Study reports are issued, the CAISO will perform the allocation of the TP Deliverability to Option (A) and Option (B) Generating Facilities that meet the eligibility criteria set forth in Section 8.9.2. The TP Deliverability available for allocation will determined from the most recent Transmission Plan. Once a Generating Facility is allocated TP Deliverability, the facility will be required to comply with retention criteria specific in Section 8.9.3 in order to retain the allocation.

Allocation of TP Deliverability shall not provide any Interconnection Customer or Generating Facility with any right to a specific MW of capacity on the CAISO Controlled Grid or any other rights (such as title, ownership, rights to lease, transfer or encumber).

The CAISO will issue a market notice to inform interested parties as to the timeline for commencement of allocation activities, for Interconnection Customer submittal of eligibility status and retention information, and anticipated release of allocation results to Interconnection Customers. There are two components to the allocation process.

8.9.1 First Component: Representing TP Deliverability Used by Prior Commitments

The CAISO will identify the following commitments that will utilize MW quantities of TP Deliverability:

- (a) The proposed Generating Facilities corresponding to earlier queued Interconnection Requests meeting the criteria set forth below:
- (i) proposed Generating Facilities in Queue Cluster 4 or earlier that have executed PPAs with Load-Serving Entities and have GIAs that are in good standing.
 - (ii) proposed Generating Facilities in Queue Cluster 5 and subsequent Queue Clusters that were previously allocated TP Deliverability and have met the criteria to retain the allocation set forth in Section 8.9.4.
- (b) any Maximum Import Capability included as a planning objective in the Transmission Plan:
- (c) any other commitments having a basis in the Transmission Plan.

8.9.2 Second Component: Allocating TP Deliverability To The Current Queue Cluster

If the CAISO determines, under Section 8.9.1.1 above, that no TP Deliverability exists for allocation to the current Queue Cluster, then no allocation of TP Deliverability shall be made to the current Queue Cluster. If TP Deliverability is available for allocation, then the ISO will allocate such capacity to eligible Generating Facilities.

The CAISO shall allocate any TP Deliverability available after taking into account the commitments described in the prior section to eligible Generating Facilities in the current Interconnection Study Cycle and eligible parked Generating Facilities from the previous Interconnection Study Cycle.

The ISO shall allocate available TP Deliverability to Generating Facilities according to the Interconnection Customers' demonstration of having met the criteria listed below for all or a portion of the full MW generating capacity of the Generating Facility as specified in the Interconnection Request. Where a criterion is met by a portion of the full MW generating

capacity of the Generating Facility, the eligibility score associated with that criterion shall apply to the portion that meets the criterion. The demonstration must relate to the same proposed Generating Facility as described in Appendix A to the Interconnection Request. The Generating Facility shall be assigned a numerical score reflecting the Interconnection Customer's demonstration of having met the criteria below under the methodology set forth in the Business Practice Manual. At a minimum, the Generating Facility must meet (1)d and (2)a or (2)d.

- (1) Permitting status. An Interconnection Customer's Generating Facility must meet at least one of the following:
 - a. The Interconnection Customer has received its final governmental permit or authorization allowing the Generating Facility to commence construction.
 - b. The Interconnection Customer has received a draft environmental report document (or equivalent environmental permitting document) indicating likely approval of the requested permit and/or which indicates that the permitting authority has not found an environmental impact which would likely prevent the permit approval.
 - c. The Interconnection Customer has applied for the necessary governmental permits or authorizations and the authority has deemed such documentation as data adequate for the authority to initiate its review process.
 - d. The Interconnection Customer has applied for the necessary governmental permit or authorization for the construction.
- (2) Project financing status. An Interconnection Customer's Generating Facility must meet at least one of the following criteria:
 - a. The Generating Facility will be balance-sheet financed or has otherwise received a commitment of project financing, and the Interconnection Customer represents to the ISO that either it has a regulator-approved power purchase agreement or that the Interconnection Customer is proceeding to commercial operation without a power purchase agreement.
 - b. The Interconnection Customer has an executed and regulator-approved power purchase agreement.
 - c. The Interconnection Customer has an executed power purchase agreement but such agreement has not yet received regulatory approval.
 - d. The Interconnection Customer does not have an executed power purchase agreement but the Interconnection Customer is included on an active short list or other commercially recognized method of preferential ranking of power providers by a prospective purchaser Load Serving Entity.

(3) Land acquisition

- a. The Interconnection Customer demonstrates a present legal right to begin construction of the Generation Facility on one hundred percent (100%) of the real property footprint necessary for the entire Generating facility.
- b. The Interconnection Customer demonstrates Site Exclusivity.

In allocating TP Deliverability under this section, in a situation where the available amount of TP Deliverability can accommodate only one out of two or more Generating Facilities requesting TP Deliverability and such Generating Facilities score equally under the criteria above, then the CAISO will allocate the TP Deliverability to such equally scoring Generating Facilities according to lowest LDNU cost estimates.

8.9.3 Criteria For Retaining TP Deliverability Allocation

Once a Generating Facility is allocated TP Deliverability under Section 8.9.1, the Interconnection Customer annually, on the date set forth and according to the process described in the Business Practice Manual, must demonstrate that the Generating Facility meets the following criteria to retain its TP Deliverability:

- (1) The Generating Facility shall remain in good standing with respect to the criteria on which the allocation of TP Deliverability was based;
- (2) If the Generating Facility was allocated TP Deliverability based on achievement of only level d Section 8.9.2(2), then the Interconnection Customer must, by the start of the next allocation cycle, demonstrate achievement of level a, b or c of Section 8.9.2(2).
- (3) The Interconnection Customer must have executed a GIA and must remain in good standing with regard to its GIA, such that neither the Participating TO nor ISO has provided the Interconnection Customer with a Notice of Breach of the GIA that has not been cured and the Interconnection Customer has not commenced curative actions;
- (4) The Interconnection Customer must maintain the original Commercial Operation

 Date set forth in the GIA without request for extension unless such extension is
 required for reasons beyond the control of the Interconnection Customer and
 such extension results in no Material Modification or delay in the construction
 schedule for Network Upgrades common to multiple Generating Facilities; or
 unless the extension is occasioned by a material delay in the Participating TO's
 construction of any Network Upgrades or Participating TO's Interconnection
 Facilities

The Interconnection Customer will provide the required information in the form of an affidavit as described in the Business Practice Manual.

8.9.4 Parking for Option (A) Generating Facilities

For an Option (A) Generating Facility in the current Interconnection Study Cycle which either was allocated less TP Deliverability than requested or does not desire to accept the amount allocated the Interconnection Customer shall select one of the following options:

- (1) Withdraw its Interconnection Request
- (2) Enter into a GIA, in which case the Interconnection Request shall automatically convert to Energy Only Deliverability Status. In such circumstances, upon execution of the GIA, any Interconnection Financial Security shall be adjusted to remove the obligation for Interconnection Financial Security pertaining to LDNUs
- (3) Park the Interconnection Request; in which case the Interconnection Request may remain in the Interconnection queue until the next allocation of TP Deliverability in which it may participate in accordance with the requirements of Section 8.9.1. Parking an Interconnection Request does not confer a preference with respect to any other Interconnection Request with respect to allocation of TP Deliverability.

8.9.5 Partial Allocations of Transmission Based Deliverability to Option (A) and Option (B) Generating Facilities

If a Generating Facility is allocated TP Deliverability in the current Interconnection Study Cycle in an amount less than the amount of Deliverability requested, then the Interconnection Customer must choose one of the following options:

- (i) Accept the allocated amount of TP Deliverability and reduce the MW generating capacity of the proposed Generating Facility such that the allocated amount of TP Deliverability will provide Full Capacity Deliverability Status to the reduced generating capacity;
- (ii) Accept the allocated amount of TP Deliverability and adjust the

 Deliverability status of the proposed Generating Facility to achieve

 Partial Capacity Deliverability corresponding to the allocated TP

 Deliverability;
- (iii) For Option (A) Generating Facilities, accept the allocated amount of TP Deliverability and seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle. In such instance, the Interconnection Customer shall execute a GIA for the entire Generating Facility having Partial Capacity Deliverability corresponding to the allocated amount of TP Deliverability. Following the next cycle of TP Deliverability allocation, the GIA shall be amended as needed to adjust its Deliverability status to reflect any additional allocation of TP Deliverability. At this time the Interconnection Customer may also adopt options (i) or (ii) above based on the final amount of TP Deliverability allocated to the Generating Facility. There will be no further opportunity for this Generating Facility to participate in any subsequent cycle of TP Deliverability allocation; or
- (iv) Decline the allocated amount of TP Deliverability and either withdraw the Interconnection Request or convert to Energy Only Deliverability Status.

 An Interconnection Customer having an Option (A) Generating Facility that has not previously parked may decline the allocation of TP Deliverability and park until the next cycle of TP Deliverability allocation in the next Interconnection Study Cycle.

8.9.6 Declining TP Deliverability Allocation

An Interconnection Customer having an Option (A) Generating Facility that has not previously parked and is allocated the entire amount of requested TP Deliverability may decline all or a portion of the TP Deliverability allocation and park the Generating Facility Request as described in Section 8.9.4(3).

8.9.7 Consequences of Failure to Retain TP Deliverability

An Interconnection Customer's failure to retain its allocation of TP Deliverability shall not be considered a Breach of the GIA. Upon failure of the Interconnection Customer to retain TP Deliverability, the Deliverability status of the Generating Facility corresponding to the Interconnection Request shall convert to Energy Only Deliverability Status as to that portion of the Generating Facility which has not retained the TP Deliverability.

8.9.8 Updates to Phase II Interconnection Study Results

Upon completion of the allocation of TP Deliverability in accordance with Section 8.9.2, the ISO will provide the allocation results to the Interconnection Customers for eligible Generating Facilities in the current Queue Cluster and eligible parked Generating

Facilities in the prior Queue Cluster. Each of these Interconnection Customers will then have seven (7) calendar days to inform the ISO of its decisions in accordance with Sections 8.9.4, 8.9.5, and 8.9.6. Following the ISO's receipt of this information from all affected Interconnection Customers, the ISO will provide updates where needed to the Phase II Interconnection Study reports for all Generating Facilities whose Network Upgrades have been affected.

Section 9 Additional Deliverability Assessment Options

9.1 [Intentionally Omitted]

9.2 Annual Full Capacity Deliverability Option

- **9.2.1** Generating Facilities eligible for Deliverability under this Section are
 - (i) a Generating Facility previously studied as Energy-Only Deliverability Status in the last Interconnection Study Cycle under the CAISO Tariff (including a Small Generating Facility studied under the provisions of Appendix S of the CAISO Tariff) or which has GIA under which the Generating Facility is Energy Only Deliverability Status and such GIA is in good standing at the time of request under this Section;
 - (ii) an Option (A) Generating Facility not allocated TP Deliverability in the last Interconnection Study Cycle that converted to Energy-Only Deliverability Status and has a GIA in good standing and desires to seek additional Deliverability with respect to the Energy Only portion of the Generating Facility
 - (iii) an Option (B) Generating Facility which chose Partial Capacity Deliverability Status and has a GIA in good standing, and desires to seek additional Deliverability with respect to the Energy Only portion of its Generating Facility.

An eligible Generating Facility will have an option to be studied to determine whether it can be designated for Full Capacity Deliverability Status or Partial Capacity Deliverability Status based on available transmission capacity. To be considered in the annual assessment, the Interconnection Customer must make such a request which complies with Section 9.2.3 below within the corresponding annual Cluster Application Window.

- 9.2.2 Any Interconnection Customer selecting this option will be studied immediately following the Phase II Deliverability assessment in the Interconnection Study Cycle in which the Interconnection Customer submitted the request.
- 9.2.3 Interconnection Customers must submit an Interconnection Request as set forth in Appendix 1 along with a non-refundable \$10,000 study fee.
- 9.2.4 After allocating transmission system capability, including capability associated with both existing capability and capability relating to approved transmission upgrades, to Interconnection Customers in the Queue Cluster who originally requested Full Capacity Deliverability Status in the Phase II Interconnection Study, the CAISO will perform additional studies using the Deliverability study procedures set forth in Section 6.3.2 to determine the availability of any remaining transmission system capability for Interconnection Customers requesting Full Capacity Deliverability Status as part of the annual process described in this Section.
 - 9.2.4.1 In determining available transmission capability, priority will be given to Interconnection Customers whose Generating Facilities have the lowest transfer distribution factors, calculated according to the Deliverability study procedures.
 - 9.2.4.2 If there is sufficient available transmission capability for the Interconnection
 Customer to achieve Full Capacity Deliverability Status, then the Interconnection

<u>Customer's Generating Facility will be considered to have Full Capacity</u> Deliverability Status.

9.2.4.3 If the assessment of available transmission capability conducted under this Section indicates that there is some transmission capacity available for use by the Interconnection Customer, but less than is necessary to achieve Full Capacity Deliverability Status for the Interconnection Customer's Generating Facility, then the Interconnection Customer's Generating Facility will be considered to be partially deliverable, and the amount of transmission capability made available to that Interconnection Customer's Generating Facility will be equal to the determination of available transmission capability for the Generating Facility rounded down to the nearest 50 MW increment.

9.3 PTO Tariff Option for Full Capacity Deliverability Status

To the extent that a Participating TO's tariff provides the option for customers taking interconnection service under the Participating TO's tariff to obtain Full Capacity Deliverability Status, the CAISO will, in coordination with the applicable Participating TO, perform the necessary Deliverability studies to determine the Deliverability of customers electing such option. The CAISO shall execute any necessary agreements for reimbursement of study costs it incurs and to assure cost attribution for any Network Upgrades relating to any Deliverability status conferred to such customers under the Participating TO's tariff.

9.4 Deliverability from Non-Participating TOs

This process applies to Generating Facilities that interconnect to the transmission facilities of a Non-Participating TO located within the CAISO Balancing Authority Area that wish to obtain Full Capacity Deliverability Status or Partial Capacity Deliverability Status under the CAISO Tariff. Such Generating Facilities will be eligible to be studied by the CAISO for Full or Partial Capacity Deliverability Status pursuant to the following provisions:

- (a) The Generating Facility seeking Full or Partial Capacity Deliverability Status under the CAISO Tariff must submit a request to the CAISO to study it for such Status. Such study request will be in the form of the CAISO's pro forma Interconnection Request, must include the Generating Facility's intended Point of Delivery to the CAISO Controlled Grid, and must be submitted during a Cluster Application Window. The Generating Facility will be required to satisfy the same study deposit and Interconnection Financial Security posting requirements as an Interconnection Customer.
- (b) The Non-Participating TO that serves as the interconnection provider to the Generating Facility must treat the CAISO as an Affected System in the interconnection study process for the Generating Facility.
- (c) As part of the Non-Participating TO's interconnection study process, the CAISO, in its sole discretion and on a case-by-case basis, will determine the adequacy of transmission on the Non-Participating TO's system for the Generating Facility to be deemed fully deliverable to the elected Point of Delivery to the CAISO Controlled Grid. Only those proposed Generating Facilities (or proposed increases in Generating Facility capacity) for which the CAISO has determined there is adequate transmission capacity on the Non-Participating TO system to provide full Deliverability to the applicable Point of Delivery will be eligible to be assessed for Full or Partial Capacity Deliverability Status under the CAISO Tariff.

(d) If the Generating Facility is eligible for study for Full or Partial Capacity
Deliverability Status, the CAISO will include the Generating Facility in the
Interconnection Study process for the Queue Cluster associated with the Cluster
Application Window in which the Generating Facility has submitted its study
request. The Point of Delivery with the CAISO will be treated as the Point of
Interconnection for purposes of including the Generating Facility in a Group
Study with any applicable CAISO Interconnection Customers in the relevant
Queue Cluster. Pursuant to the Queue Cluster Interconnection Study process
the Generating Facility will be allocated its cost responsibility share of any
applicable LDNUs or ADNUs.

The Generating Facility shall be permitted to select an Option (A) or Option (B) Deliverability option under Section 7.2 (and will be treated as an Option (B) Generating Facility if a selection is not provided to the CAISO) and permitted to participate in TP Deliverability allocation under Section 8.

- (e) The CAISO, Participating TO, and Interconnection Customer will execute any necessary agreements for reimbursement of study costs incurred it to assure cost attribution for any Network Upgrades relating to any Deliverability status conferred to each such interconnection customer under the Non-Participating TO's tariff.
- (f) The Non-Participating TO's interconnection customer will receive repayment of funds expended for the construction of the LDNUs, and, as applicable, ADNUs, on the CAISO Controlled Grid in the same manner as CAISO Interconnection Customers, as specified in Section 14.3.2.

Section 10 Cost Responsibility For Interconnection Customers

10.1 Interconnection Customers in a Queue Cluster.

(a) RNUs and LDNUs. Until the Phase II Interconnection Study report is issued to the Interconnection Customer, the costs assigned to Interconnection Customers for RNUs and LDNUs in the Phase I Interconnection Study report shall establish the maximum cost responsibility for such Network Upgrades and the maximum initial Interconnection Financial Security required in Section 11.2.

After the CAISO issues the Phase II Interconnection Study report to the Interconnection Customer, the maximum value for Interconnection Financial Security required of each Interconnection Customer for RNUs and LDNUs shall be established comparing the subtotal cost for RNUs and LDNUs determined in the final Phase I Interconnection Study to the subtotal cost for RNUs and LDNUs determined in the final Phase II Interconnection Study, and utilizing the lower subtotal. The lower subtotal for RNUs and LDNUs shall also establish the Interconnection Customers' maximum cost responsibility for RNUs and LDNUs after issuance of the Phase II Interconnection Study report.

(b) ADNUs. Interconnection Customers selecting Option (A) do not post Interconnection Financial Security for ADNUs. The cost estimate provided in the Phase I Interconnection Studies establishes the basis for the initial Interconnection Financial Security Posting under Section 11.2 for Interconnection Customers selecting Option (B). The Phase II Interconnection Studies shall refresh the cost estimate for ADNUs and shall provide the basis for second and third Interconnection Financial Postings as specified in Section 11.

The ADNU cost estimates provided any Interconnection Study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection

Customer for ADNUs However, subsequent to the Interconnection Customer's receipt of its Phase II Interconnection Study report, an Interconnection Customer having selected Option (B) may have its ADNUs adjusted in the reassessment process undertaken under Section 7.4. Accordingly, for such Interconnection Customers, the most recent annual reassessment undertaken under Section 7.4 shall provide the most recent cost estimates for the Interconnection Customer's ADNUs.

10.2 Interconnection Customers in the Independent Study Process.

(a) RNUs and LNUs. the maximum value for the Interconnection Customer's Financial Security for RNUs shall be established by the lesser of the costs for such Network Upgrades assigned to the Interconnection Customer in the final System Impact Study report or final Facilities Study report.

For such Interconnection Customers choosing Full Capacity or Partial Capacity

Deliverability status, the maximum value of LDNUs shall be established by the lesser of the costs for such Network Upgrades assigned to the Interconnection Customer in the final Phase I Interconnection Study.

(b) ADNUs. Interconnection Customers selecting Option (A) do not post Interconnection Financial Security for ADNUs. The cost estimate provided in the Phase I Interconnection Studies establishes the basis for the initial Interconnection Financial Security posting under Section 11.2 for Interconnection Customers selecting Option (B). The Phase II Interconnection Studies shall refresh the cost estimate for ADNUs and shall provide the basis for second and third Interconnection Financial Postings as specified in Section 11.

The ADNU cost estimates provided any study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs—However, subsequent to the Interconnection Customer's receipt of its Phase II Interconnection Study report, an Interconnection Customer having selected Option (B) may have its ADNU adjusted in the reassessment process undertaken under Section 7.4

Section 11 Interconnection Financial Security

11.1 Types Of Interconnection Financial Security

The Interconnection Financial Security posted by an Interconnection Customer may be any combination of the following types of Interconnection Financial Security provided in favor of the applicable Participating TO(s):

- (a) an irrevocable and unconditional letter of credit issued by a bank or financial institution that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's;
- (b) an irrevocable and unconditional surety bond issued by an insurance company that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's;
- (c) an unconditional and irrevocable guaranty issued by a company has a credit rating of A or better by Standard and Poors or A2 or better by Moody's;
- (d) a cash deposit standing to the credit of the applicable Participating TO(s) in an interest-bearing escrow account maintained at a bank or financial institution that is reasonably acceptable to the applicable Participating TO(s);

- (e) a certificate of deposit in the name of the applicable Participating TO(s) issued by a bank or financial institution that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's; or
- (f) a payment bond certificate in the name of the applicable Participating TO(s) issued by a bank or financial institution that has a credit rating of A or better by Standard and Poors or A2 or better by Moody's.

Interconnection Financial Security instruments as listed above shall be in such form as the CAISO and applicable Participating TO(s) may reasonably require from time to time by notice to Interconnection Customers or in such other form as has been evaluated and approved as reasonably acceptable by the CAISO and applicable Participating TO(s).

The CAISO shall publish and maintain standardized forms related to the types of Interconnection Financial Security listed above which shall be accessible on the CAISO Website. The CAISO shall require the use of standardized forms of Interconnection Financial Security to the greatest extent possible. If at any time the guarantor of the Interconnection Financial Security fails to maintain the credit rating required by this Section, the Interconnection Customer shall provide to the applicable Participating TO(s) replacement Interconnection Financial Security meeting the requirements of this Section within five (5) Business Days of the change in credit rating.

Interest on a cash deposit standing to the credit of the applicable Participating TO(s) in an interest-bearing escrow account under subpart (d) of this Section will accrue to the Interconnection Customer's benefit and will be added to the Interconnection Customer's account on a monthly basis.

11.2 Interconnection Financial Security-Initial Posting

- 11.2.1 The Interconnection Customer shall post, with notice to the CAISO, two separate

 Interconnection Financial Security instruments: (i) a posting relating to the applicable

 Network Upgrades; (ii) a posting relating to the Participating TO's Interconnection

 Facilities.
- Timing of Postings. The postings set forth in this Section shall be made on or before ninety (90) calendar days after issuance of the final Phase I Interconnection Study report for Interconnection Customers in a Queue Cluster, or on or before sixty (60) calendar days after the CAISO provides the results of the System Impact Study for Interconnection Customers in the Independent Study Process.

Revised Cluster Study Reports. If the CAISO revises a final Phase I Interconnection Study report pursuant to Section 6.8, the initial postings will be due from the Interconnection Customer by the later of ninety (90) calendar days after issuance of the original final Phase I Interconnection Study Report or forty (40) calendar days after issuance of the revised final Phase I Interconnection Study Report.

Revised Independent Study Track Reports. If the CAISO revises a final System Impact Study report pursuant to Section 6.8, the initial postings will be due from the Interconnection Customer by the later of ninety (90) calendar days after issuance of the original final System Impact report or thirty (30) calendar days after issuance of the revised System Impact Study report.

11.2.3 Posting Amount for Network Upgrades.

11.2.3.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument as follows:

1) Interconnection Customers selecting Energy Only Deliverability Status must post for RNUs.

The posting amount for such RNUs shall equal the lesser of fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

<u>2) Interconnection Customers selecting Option (A) Full Capacity or Partial Capacity Deliverability Status must post for RNUs and LDNUs.</u>

The posting amount for such RNUs and LDNUs shall equal the lesser of fifteen percent (15%) of the total RNU and LDNU cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

3) Interconnection Customers selecting Option (B) Full Capacity or Partial Capacity Deliverability Status must post for RNUs, LDNUs and ADNUs.

The posting amount for such RNUs, LDNUs and ADNUs shall equal the lesser of fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

11.2.3.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument as follows:

1) Interconnection Customers selecting Energy Only Deliverability Status must post for RNUs.

The posting amount for such RNUs shall equal the lesser of (i) fifteen percent (15%) of the total RNU cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount

of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

In addition, if an Interconnection Customer switches its status from Full Capacity
Deliverability Status to Energy-Only Deliverability Status within five (5) Business Days
following the Phase I Interconnection Study Results Meeting, the required
Interconnection Financial Security for Network Upgrades shall, for purposes of this
section, be additionally capped at an amount no greater than the total cost responsibility
assigned to the Interconnection Customer in the Phase I Interconnection Study for
Reliability Network Upgrades.

2) Interconnection Customers selecting Option (A) Full Capacity or Partial Capacity Deliverability Status must post for RNUs and LDNUs.

The posting amount for such RNUs and LDNUs shall equal the lesser of (i) fifteen percent (15%) of the total RNU and LDNU cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

3) Interconnection Customers selecting Option (B) Full Capacity or Partial Capacity Deliverability Status must post for RNUs, LDNUs and ADNUs.

The posting amount for such RNUs, LDNUs and ADNUs shall be equal to the lesser of (i) fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

11.2.4 Posting Amount for Participating TO Interconnection Facilities.

11.2.4.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument in an amount of fifteen (15) percent of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Participating TO's Interconnection Facilities or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

11.2.4.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument in an amount equal to the lesser of (i) fifteen (15) percent of the total cost responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study or System Impact Study for Participating TO's Interconnection Facilities, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

11.2.5 Cost Estimates Less than Minimum Posting Amounts.

If the costs of either the estimated Network Upgrades or the Participating TO Interconnection Facilities are less than the minimum posting amounts that would apply under Sections 10.2.3 or 10.2.4, then the posting amount required will be equal to the estimated Network Upgrades amount or the Participating TO Interconnection Facilities amount.

11.2.6 Consequences for Failure to Post.

The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this Section shall result in the Interconnection Request being deemed withdrawn and subject to Section 3.8. The Interconnection Customer shall provide the CAISO and the Participating TO with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.

11.2.7 Effect of Decrease in Output on Initial Posting Requirement.

If an Interconnection Customer decreases the electrical output of its facility after the completion of the Phase I Interconnection Study, pursuant to Section 6.7.2, and the CAISO, in consultation with the applicable Participating TO(s), is able to reasonably determine, prior to the date for initial posting of Interconnection Financial Security, that as a result of such decrease (solely or in combination with other modifications made by Interconnection Customers in the same Study Group) some of the Network Upgrades and/or Participating TO Interconnection Facilities identified in the Phase I Interconnection Study will no longer be required, then the calculation of the initial posting of Interconnection Financial Security will not include those Network Upgrades and/or Participating TO Interconnection Facilities. Such determination will be made based on the CAISO's best engineering judgment and will not include any re-studies.

11.3 Interconnection Financial Security-Second and Third Postings

11.3.1 Second Posting

The Interconnection Customer shall make second postings, with notice to the CAISO, of two separate Interconnection Financial Security instruments: (i) a second posting relating to the Network Upgrades; (ii) a second posting relating to the Participating TO's Interconnection Facilities. The cost responsibility estimates for calculating the second and third Interconnection Financial Security Posting shall be set forth in the Phase II Interconnection Study report the System Impact Study, or the Facilities Study.

11.3.1.2 Timing of Posting

The second postings shall be made on or before one hundred eighty (180) calendar days after issuance of the final Phase II Interconnection Study report for Interconnection Customers in a Queue Cluster, or on or before one hundred twenty (120) calendar days after the CAISO provides the results of the Facilities Study for Interconnection Customers in the Independent Study.

Revised Cluster Study Reports. If the CAISO revises a final Phase II Interconnection

Study report pursuant to Section 6.8, the second postings will be due by the later of one hundred-eighty (180) calendar days after issuance of the original final Phase II Interconnection Study report or sixty (60) calendar days after issuance of the revised final Phase II Interconnection Study report.

Revised Independent Study Track Reports. If the CAISO revises the final Facilities Study report pursuant to Section 6.8, the postings will be due by the later of one hundred-twenty (120) calendar days after the issuance of the original final Facilities Study report or thirty (30) calendar days from the issuance of the revised Facilities Study report.

11.3.1.3 Posting Requirements and Timing for Parked Option (A) Generating Facilities

For an Interconnection Customer choosing Option (A) whose Generating Facility was not allocated TP Deliverability in the first TP Deliverability allocation following its receipt of the final Phase II Interconnection Study, and who chooses to park the Interconnection Request, the posting due date will be extended by 12 months.

For an Interconnection Customer choosing Option (A) whose Generating Facility was allocated TP Deliverability for less than the full amount of its Interconnection Request, and who chooses to seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle, the postings for RNU, Participating TO Interconnection Facilities and for LDNUs corresponding to the initial allocation of TP Deliverability will be due in accordance with the dates specified above. The posting due date for the LDNUs corresponding to the remainder of the requested Deliverability will be extended by 12 months.

11.3.1.4 Network Upgrade Posting Amounts

11.3.1.4.1 Small Generator Interconnection Customers

For each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster or an Interconnection Customer for a Small Generating Facility in the Independent Study Process, the second Interconnection Financial Security instrument shall bring the security amount up to the following:

- 1) For Interconnection Customers selecting Energy Only Deliverability Status: the lesser of (i) \$1 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs in either the final Phase II Interconnection Study report, or for Independent Study Process Interconnection Customers, the System Impact Study, or Facilities Study, whichever is lower. In no event shall the total amount posted be less than \$100,000.
- 2) For Interconnection Customers who have Option (A) Generating Facilities, the lesser of (i) \$1 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower.

However, in no event shall the total amount posted be less than \$100,000.

3) For Interconnection Customers who have Option (B) Generating Facilities: the lesser of (i) \$1 million or (ii) the sum of:

(a) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower; plus,

(b) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for ADNUs in the final Phase II Interconnection Study. However, to the extent that the Option (B) Interconnection Customer's Generating Facility is allocated TP Deliverability, the cost responsibility assigned to the Interconnection Customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. If the allocation of TP Deliverability is for the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will equal zero (0). If the allocation of TP Deliverability is less than the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will be reduced prorata.

However, in no event shall the total amount posted be less than \$100,000.

11.3.1.4.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument that brings the security amount up to the following:

- 1) For Interconnection Customers selecting Energy Only Deliverability Status: the lesser of (i) \$15 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs in the, final Phase II Interconnection Study, System Impact Study, or Facilities Study, whichever is lower. In no event shall the total amount posted be less than \$500,000.
- 2) For Interconnection Customers, who have Option (A) Generating Facilities the lesser of (i) \$15 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower.

However, in no event shall the total amount posted be less than \$500,000.

3) For Interconnection Customers who have Option (B) Generating Facilities: the lesser of (i) \$15 million or (ii) the sum of:

(a)thirty (30) percent of the cost responsibility assigned to the Interconnection

Customer for RNUs and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in either the System Impact Study or Facilities Study, whichever is lower; plus

(b) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for ADNUs in the final Phase II Interconnection Study. However, to the extent that the Option (B) Interconnection Customer's Generating Facility is allocated TP Deliverability, the cost responsibility assigned to the Interconnection Customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. If the allocation of TP Deliverability is for the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will equal zero (0). If the allocation of TP Deliverability is less than the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will be reduced pro rata.

However, in no event shall the total amount posted be less than \$500,000.

11.3.1.4.3 Cost Estimates Less than Minimum Posting Amounts.

If the costs of the estimated Network Upgrades are less than the posting amounts set forth in Section 11.3.1.4.2 above, then posting amount required will be equal to the estimated Network Upgrade amount.

11.3.1.5 Posting Amount for Participating TO Interconnection Facilities.

11.3.1.5.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities equals the lesser of (i) \$1 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for Participating TO Interconnection Facilities in the final Phase II Interconnection Study or Facilities Study. In no event shall the total amount posted be less than \$100,000.

11.3.1.5.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities equals the lesser of (i) \$15 million or (ii) thirty (30) percent of the total cost responsibility assigned to the Interconnection Customer for Participating TO Interconnection Facilities in the final Phase II Interconnection Study or Facilities Study. In no event shall the total amount posted be less than \$500,000.

11.3.1.5.3 Cost Estimates Less than Minimum Posting Amounts.

If the costs of the estimated Participating TO Interconnection Facilities are less than the posting amounts set forth in Section 11.3.1.5.2 above, the posting amount required will be equal to the estimated Participating TO Interconnection Facilities amount.

11.3.1.6 Early Commencement of Construction Activities

If the start date for Construction Activities of Network Upgrades or Participating TO's Interconnection Facilities on behalf of the Interconnection Customer is prior to one hundred eighty (180) calendar days after issuance of the final Phase II Interconnection Study report for Interconnection Customers in a Queue Cluster or prior to one hundred twenty (120) calendar days after issuance of the final Facilities Study report for Interconnection Customers in the Independent Study Process, that start date must be set forth in the Interconnection Customer's GIA, and the Interconnection Customer shall make its second posting of Interconnection Financial Security pursuant to Section 10.3.2 rather than Section 10.3.1.

11.3.1.7 Consequences for Failure to Post

The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this Section shall constitute grounds for termination of the GIA pursuant to LGIA Article 2.3 or SGIA Article 3.3, whichever is applicable.

11.3.2 Third Posting

On or before the start of Construction Activities for Network Upgrades or Participating TO's Interconnection Facilities on behalf of the Interconnection Customer, whichever is earlier, the Interconnection Customer shall modify the two separate Interconnection Financial Security instruments posted pursuant to Section 11.3.1.

11.3.2.1 Network Upgrades

With respect to the Interconnection Financial Security Instrument for Network Upgrades, the Interconnection Customer shall modify this Instrument so that it equals one hundred (100) percent of the total cost responsibility assigned to the Interconnection Customer for RNUs, LDNUs and ADNUs as determined in Section 11.3.1.3.1 for Small Generator Interconnection Customers or in Section 11.3.1.3.2 for Large Generator Interconnection Customers.

An Interconnection Customer whose Option (B) Generating Facility was not allocated TP Deliverability and elects to have a party other than the applicable Participating TO(s) construct an LDNU or ADNU is not required to make the third posting for its cost responsibilities for such LDNU or ADNU. However, such Interconnection Customer will be required to demonstrate its financial capability to pay for the full cost of construction of its share, as applicable, of the LDNU or ADNU pursuant to Section 24.4.6.1 of the CAISO Tariff. An Interconnection Customer's election to have a party other than an applicable Participating TO construct an LDNU or ADNU does not relieve the Interconnection Customer of the responsibility to fund or construct such LDNU or ADNU. Upon the Interconnection Customer's demonstration to the CAISO that the Interconnection Customer has expended the amount of the avoided posting requirement on construction of the LDNU or ADNU described here, the Interconnection Customer's second posting for these facilities will be returned to the Interconnection Customer, unless the Participating TO and Interconnection Customer agree to an alternative arrangement.

11.3.2.2 Participating TO Interconnection Facilities

With respect to the Interconnection Financial Security Instrument for Participating TO Interconnection Facilities, the Interconnection Customer shall modify this instrument so that it equals one hundred (100) percent of the total cost responsibility assigned to the Interconnection Customer for Participating TO Interconnection Facilities in the final Phase II Interconnection Study for Interconnection Customers in a Queue Cluster, or the final Facilities Study for Interconnection Customers in the Independent Study Process.

11.3.2.3 Separation of Third Posting

If an Interconnection Customer's Network Upgrades and/or Interconnection Facilities are separated into two or more specific components and/or can be separated into two or more separate and discrete phases of construction and the Participating TO is able to identify and separate the costs of the identified discrete components and/or phases of construction, then the Participating TO, the CAISO, and the Interconnection Customer may negotiate, as part of the Generator Interconnection Agreement, a division of the third Interconnection Financial Security posting into discrete Interconnection Financial Security amounts and may establish discrete milestone dates (however, outside dates must be included) for posting the amounts corresponding to each component and/or phase of construction related to the Network Upgrades and/or Interconnection Facilities described in the Generator Interconnection Agreement.

11.3.2.4 Failure to Post

The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this Section shall constitute grounds for termination of the GIA pursuant to LGIA Article 2.3 or SGIA Article 3.3, whichever is applicable.

11.4 Withdrawal Or Termination- Effect On Financial Security

Except as set forth in Section 11.4.1, withdrawal of an Interconnection Request or termination of a GIA shall allow the applicable Participating TO(s) to liquidate the Interconnection Financial Security, or balance thereof, posted by the Interconnection Customer for Network Upgrades at the time of withdrawal.

To the extent the amount of the liquidated Interconnection Financial Security plus capital, if any, separately provided by the Interconnection Customer to satisfy its obligation to finance Network Upgrades exceeds the total cost responsibility for Network Upgrades assigned to the Interconnection Customer, the applicable Participating TO(s) shall remit to the Interconnection Customer the excess amount.

Withdrawal of an Interconnection Request or termination of a GIA shall result in the release to the Interconnection Customer of any Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities, except with respect to any amounts necessary to pay for costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer for the Participating TO's Interconnection Facilities and for which the applicable Participating TO(s) has not been reimbursed.

11.4.1 Conditions for Partial Recovery of Interconnection Financial Security Upon Withdrawal of Interconnection Request or Termination of GIA

A portion of the Interconnection Financial Security shall be released to the Interconnection Customer, consistent with Section 11.4.2, if the withdrawal of the Interconnection Request or termination of the GIA occurs for any of the following reasons:

(a) Failure to Secure a Power Purchase Agreement. At the time of withdrawal of the Interconnection Request or termination of the GIA, the Interconnection Customer demonstrates to the CAISO that it has failed to secure an acceptable power purchase agreement for the Energy or capacity of the Generating Facility after a good faith effort to do so. A good faith effort can be established by demonstrating participation in a competitive solicitation process or bilateral negotiations with an entity other than an Affiliate that progressed, at minimum, to the mutual exchange by all counter-parties of proposed term sheets.

- (b) Failure to Secure a Necessary Permit. At the time of withdrawal of the Interconnection Request or termination of the GIA, the Interconnection Customer demonstrates to the CAISO that it has received a final denial from the primary issuing Governmental Authority of any permit or other authorization necessary for the construction or operation of the Generating Facility.
- (c) Increase in the Cost of Participating TO's Interconnection Facilities. The
 Interconnection Customer withdraws the Interconnection Request or terminates
 the GIA based on an increase of more than 30% or \$300,000, whichever is
 greater, in the estimated cost of Participating TO's Interconnection Facilities
 between the Phase I Interconnection Study and the Phase II Interconnection
 Study, provided, however, that the Interconnection Financial Security shall not be
 released if this increase in the estimated cost is due to the Interconnection
 Customer's requested modification to the interconnection configuration.
- (d) Material Change in Interconnection Customer Interconnection Facilities Created by a CAISO Change in the Point of Interconnection. The Interconnection Customer withdraws the Interconnection Request or terminates the GIA based on a material change from the Phase I Interconnection Study in the Point of Interconnection for the Generating Facility mandated by the CAISO and included in the final Phase II Interconnection Study. A material change in the Point of Interconnection shall be where Point of Interconnection has moved to (i) a different substation, (ii) a different line on a different right of way, or (iii) a materially different location than previously identified on the same line.
- (e) An Interconnection Customer having selected Option (A) in accordance with Section 7.2 is not allocated TP Deliverability and notifies the CAISO of its election to withdraw by the deadline for the second posting of Interconnection Financial Security. This condition does not apply to an Interconnection Customer whose Generating Facility was allocated TP Deliverability for a portion of its Interconnection Request and elected to seek additional Deliverability in the next TP Deliverability allocation process.
- (f) For an Interconnection Customer having selected Option (B) in accordance with Section 7.2 an increase in the Phase II Interconnection Study cost estimates for ANDUs over the Phase I Interconnection Study cost estimates for ADNUs of either twenty (20) percent, or \$20 million, whichever is less. Provided, however, that the Interconnection Financial Security shall not be released if this increase in the estimated cost of ADNUs is due to the Interconnection Customer's requested modification to the interconnection configuration.

11.4.2 Determining Refundable Portion of the Interconnection Financial Security for Network Upgrades.

11.4.2.1 Withdrawal Between the First Posting and the Deadline for the Second Posting

If the Interconnection Customer either withdraws its Interconnection Request or terminates its GIA under any of the conditions (a)-(f) of Section 11.4.1 above and at any time between the initial posting and the deadline for the second posting of the Interconnection Financial Security for applicable Network Upgrades, then the applicable Participating TO(s) shall liquidate the Interconnection Financial Security for the applicable Network Upgrades and reimburse the Interconnection Customer the lesser of:

- a. the Interconnection Financial Security plus (any other provided security plus any separately provided capital) less (all costs and expenses incurred or irrevocably committed to finance Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer), or
- b. the Interconnection Financial Security plus (any other provided security plus any separately provided capital) minus the lesser of fifty (50) percent of the value of the posted Interconnection Financial Security for Network Upgrades or
- <u>\$10,000 per requested and approved megawatt of the Generating Facility Capacity at the</u> time of withdrawal.

11.4.2.2 Withdrawal Between the Second Posting and the Commencement of Construction Activities

If the Interconnection Customer either withdraws or terminates its GIA under any of the conditions (a)-(f) of Section 11.4.1 above and at any time after the between the second posting of the Interconnection Financial Security for applicable Network Upgrades and the Commencement of Construction Activities for such Network Upgrades, then the applicable Participating TO(s) shall liquidate the Interconnection Financial Security for the applicable Network Upgrades and reimburse the Interconnection Customer the lesser of:

- a. the Interconnection Financial Security plus (any other provided security plus any separately provided capital) less (all costs and expenses incurred or irrevocably committed to finance Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer), or
- b. the Interconnection Financial Security plus (any other provided security plus any separately provided capital) minus the lesser of fifty (50) percent of the value of the posted Interconnection Financial Security for Network Upgrades or \$20,000 per requested and approved megawatt of the Generating Facility Capacity at the time of withdrawal.

11.4.2.3 Special Treatment Based on Failure to Obtain Necessary Permit or Authorization from Governmental Authority.

If, at any time after the second posting requirement, the Interconnection Customer withdraws the Interconnection Request or terminates the GIA, as applicable, in accordance with Section 11.4.1(b), and the Delivery Network Upgrades to be financed by the Interconnection Customer are also to be financed by one or more other Interconnection Customers, then Section 11.4.2.2 shall apply, except that the Interconnection Customer shall not be reimbursed for its share of any actual costs incurred or irrevocably committed by the applicable Participating TO(s) for Construction Activities.

11.4.2.4 After Commencement of Construction Activities.

Except as otherwise provided in Section 11.4.2.3, once Construction Activities on Network

Upgrades on behalf of the Interconnection Customer commence, any withdrawal of the

Interconnection Request or termination of the GIA by the Interconnection Customer will be treated as follows:

The applicable Participating TO(s) shall liquidate the Interconnection Financial Security, or balance thereof, posted by the Interconnection Customer for Network Upgrades at the time of withdrawal.

To the extent the amount of the liquidated Interconnection Financial Security plus capital, if any, separately provided by the Interconnection Customer to satisfy its obligation to finance Network Upgrades exceeds the total cost responsibility for Network Upgrades assigned to the Interconnection Customer, the applicable Participating TO(s) shall remit to the Interconnection Customer the excess amount.

Withdrawal of an Interconnection Request or termination of a GIA shall result in the release to the Interconnection Customer of any Interconnection Financial Security posted by the Interconnection Customer for Participating TO Interconnection Facilities, except with respect to any amounts necessary to pay for costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer for the Participating TO's Interconnection Facilities and for which the applicable Participating TO(s) has not been reimbursed in accordance with this Section.

11.4.2.5 Notification to CAISO and Accounting by Applicable Participating TO(s).

The applicable Participating TO(s) shall notify the CAISO within one (1) Business Day of liquidating any Interconnection Financial Security. Within twenty (20) calendar days of any liquidating event, the applicable Participating TO(s) shall provide the CAISO and Interconnection Customer with an accounting of the disposition of the proceeds of the liquidated Interconnection Financial Security and remit to the CAISO all proceeds not otherwise reimbursed to the Interconnection Customer or applied to costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer in accordance with this Section.

All non-refundable portions of the Interconnection Financial Security remitted to the CAISO in accordance with this Section shall be treated in accordance with CAISO Tariff Section 37.9.4.

11.5 Adjusting Network Upgrade Postings Following Reassessment Process

For Interconnection Customers having selected Option (B), the most recent reassessment conduced under Section 7.4 in any Interconnection Study Cycle following the Interconnection Customer's receipt of its Phase II Interconnection study report shall provide the most recent cost estimates for the Interconnection Customer's ADNUs and the Interconnection Customer shall adjust its Interconnection Financial Security for Network Upgrades to correspond to the most recent estimate for ADNUs.

Section 12 Engineering & Procurement ("E&P") Agreement

Prior to executing a GIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and the applicable Participating TO(s) shall offer the Interconnection Customer, an E&P Agreement that authorizes the applicable Participating TO(s) to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, the applicable Participating TO(s) shall not be obligated to offer an E&P Agreement if the Interconnection Customer is in Dispute Resolution as a result of an allegation that the Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the . The E&P Agreement is an optional procedure. The E&P Agreement shall provide for the Interconnection Customer to pay the cost of all activities authorized by the Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

The Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its interconnection, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If the Interconnection Customer withdraws its application for interconnection or either Party terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, the Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, the applicable Participating TO(s) may elect: (i) to take title to the equipment, in which event the applicable Participating TO(s) shall refund the Interconnection Customer

any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to the Interconnection Customer, in which event the Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

Section 13 Generator Interconnection Agreement (GIA)

13.1 Tender

- 13.1.1 Within thirty (30) Calendar Days after the CAISO provides the final Phase II
 Interconnection Study report, or the Facilities Study report (or System Impact Study report if the Facilities Study is waived) to the Interconnection Customer, the applicable Participating TO(s) and the CAISO shall tender a draft GIA, together with draft appendices. The draft GIA shall be in the form of the FERC-approved form of GIA set forth in CAISO Tariff Appendix T or Appendix CC, as applicable. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft appendices to the applicable Participating TO(s) and the CAISO within (30) calendar days of receipt.
- Consistent with Sections 15.3 and 13.1.1, when the transmission system of a

 Participating TO, in which the Point of Interconnection is not located, is affected, such
 Participating TO shall tender a separate agreement, in the form of the GIA, as appropriately modified.

13.2 Negotiation

Notwithstanding Section 13.1, at the request of the Interconnection Customer, the applicable Participating TO(s) and CAISO shall begin negotiations with the Interconnection Customer concerning the appendices to the GIA at any time after the CAISO provides the Interconnection Customer with the final Phase II Interconnection Study report. The applicable Participating TO(s) and CAISO and the Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft GIA for not more than one hundred twenty (120) calendar days after the CAISO provides the Interconnection Customer with the final Phase II Interconnection Study report, or the Facilities Study report (or System Impact Study report if the Facilities Study is waived). If the Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft GIA pursuant to Section 13.1 and request submission of the unexecuted GIA with FERC or initiate Dispute Resolution procedures pursuant to Section 15.5. If the Interconnection Customer requests termination of the negotiations, but, within one hundred twenty (120) calendar days after issuance of the final Phase II Interconnection Study report, fails to request either the filing of the unexecuted GIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if the Interconnection Customer has not executed and returned the GIA, requested filing of an unexecuted GIA, or initiated Dispute Resolution procedures pursuant to Section 15.5 within one hundred twenty (120) calendar days after issuance of the final Phase II Interconnection Study report, it shall be deemed to have withdrawn its Interconnection Request. The applicable Participating TO(s) and CAISO shall provide to the Interconnection Customer a final GIA within fifteen (15) Business Days after the completion of the negotiation process.

13.3 Execution And Filing

The Interconnection Customer shall either: (i) execute the appropriate number of originals of the tendered GIA as specified in the directions provided by the CAISO and return them to the CAISO, as directed, for completion of the execution process; or (ii) request in writing that the applicable Participating TO(s) and CAISO file with FERC a GIA in

unexecuted form. The GIA shall be considered executed as of the date that all three Parties have signed the GIA. As soon as practicable, but not later than ten (10) Business Days after receiving either the executed originals of the tendered GIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted GIA, the applicable Participating TO(s) and CAISO shall file the GIA with FERC, as necessary, together with an explanation of any matters as to which the Interconnection Customer and the applicable Participating TO(s) or CAISO disagree and support for the costs that the applicable Participating TO(s) propose to charge to the Interconnection Customer under the GIA. An unexecuted GIA should contain terms and conditions deemed appropriate by the applicable Participating TO(s) and CAISO for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted GIA, they may proceed pending FERC action.

13.4 Commencement Of Interconnection Activities

If the Interconnection Customer executes the final GIA, the applicable Participating TO(s), CAISO and the Interconnection Customer shall perform their respective obligations in accordance with the terms of the GIA, subject to modification by FERC. Upon submission of an unexecuted GIA, the Interconnection Customer, applicable Participating TO(s) and CAISO may proceed to comply with the unexecuted GIA, pending FERC action.

13.5 Interconnection Customer To Meet PTO Handbook Requirements

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the applicable Participating TO's Interconnection Handbook.

Section 14 PTOs Interconnection Facilities And Network Upgrades

14.1 Schedule

The applicable Participating TO(s) and the Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of the applicable Participating TO's Interconnection Facilities and the Network Upgrades.

14.2 Construction Sequencing

14.2.1 General

In general, the sequence of construction of Stand Alone Network Upgrades or other Network Upgrades for a single Interconnection Request, or Network Upgrades identified for the interconnection of Generating Facilities associated with multiple Interconnection Requests, shall be determined, to the maximum extent practical, in a manner that accommodates the proposed Commercial Operation Date set forth in the GIA of the Interconnection Customer(s) associated with the Stand Alone Network Upgrades or other Network Upgrades.

14.2.2 Construction of Network Upgrades that are or were an Obligation of an Entity other than the Interconnection Customer

The applicable Participating TO(s) shall be responsible for financing and constructing any Network Upgrades necessary to support the interconnection of the Generating Facility of an Interconnection Customer with a GIA whenever the Network Upgrades were included in the Interconnection Base Case Data for a Phase II Interconnection Study on the basis that they were Network Upgrades associated with Generating Facilities of Interconnection Customers that have an executed GIA (or its equivalent predecessor agreement) or unexecuted GIA (or its equivalent predecessor agreement) filed with FERC, and such

GIA specifies that the Participating TO would construct the Network Upgrades, and either:

- (i) the Network Upgrades will not otherwise be completed because such GIA or equivalent predecessor agreement was subsequently terminated or the Interconnection Request has otherwise been withdrawn; or
- (ii) the Network Upgrades will not otherwise be completed in time to support the Interconnection Customer's In-Service Date because construction has not commenced in accordance with the terms of such GIA (or its equivalent predecessor agreement).

Where the Participating TO is constructing ADNUs for Option (B) Interconnection Customers and one of the two conditions above occurs, the Participating TO shall continue to construct such ADNUs with financing provided from the Interconnection Financial Security of those Option (B) Interconnection Customers' Interconnection referred to above, with any additional financing requirements to be reapportioned among those remaining Option (B) Interconnection Customers who still need the ADNUs.

The obligation under this Section arises only after the CAISO, in coordination with the applicable Participating TO(s), determines that the Network Upgrades remain needed to support the interconnection of the Interconnection Customer's Generating Facility notwithstanding, as applicable, the absence or delay of the Generating Facility that is contractually, or was previously contractually, associated with the Network Upgrades.

Further, to the extent the timing of such Network Upgrades was not accounted for in determining a reasonable Commercial Operation Date among the CAISO, applicable Participating TO(s), and the Interconnection Customer as part of the Phase II Interconnection Study, the applicable Participating TO(s) will use Reasonable Efforts to ensure that the construction of such Network Upgrades can accommodate the Interconnection Customer's proposed Commercial Operation Date. If, despite Reasonable Efforts, it is anticipated that the Network Upgrades cannot be constructed in time to accommodate the Interconnection Customer's proposed Commercial Operation Date, the Interconnection Customer may commit to pay the applicable Participating TO(s) any costs associated with expediting construction of the Network Upgrades to meet the original proposed Commercial Operation Date. The expediting costs under Section shall be in addition to the Interconnection Customer's cost responsibility.

14.2.3 Advancing Construction of Network Upgrades that are Part of the CAISO's Transmission Plan

An Interconnection Customer with a GIA, in order to maintain its In-Service Date as specified in the GIA, may request that the CAISO and applicable Participating TO(s) advance to the extent necessary the completion of Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an approved CAISO Transmission Plan covering the PTO Service Territory of the applicable Participating TO(s), in time to support such In-Service Date. Upon such request, the applicable Participating TO(s) will use Reasonable Efforts to advance the construction of such Network Upgrades to accommodate such request; provided that the Interconnection Customer commits to pay the applicable Participating TO(s) any associated expediting costs. The Interconnection Customer shall be entitled to refunds, if any, in accordance with the GIA, for any expediting costs paid.

14.3 Network Upgrades

With the exception of LDNUs and ADNUs for Option (B) Generating Facilities that were not allocated TP Deliverability, Network Upgrades will be constructed by the applicable Participating TO(s). Interconnection Customers may, at their discretion, select parties other than the applicable PTOs to construct certain LDNUs and ADNUs required by their Option (B) Generating Facilities that are not allocated TP Deliverability, if such LDNUs and ADNUs are eligible for construction by parties other than the applicable PTO pursuant to Section 24.5.2 of the CAISO Tariff. Such ADNUs and LDNUs will be incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1, and 36.11. Unless the Interconnection Customer elects construction by a party other than the applicable Participating TO, the applicable Participating TO(s) will be obligated to construct the LDNUs and ADNUs This Section shall not apply to an Interconnection Customer's right to build Stand Alone Network Upgrade(s) in accordance with the LGIA.

14.3.1 Initial Funding

RNUs and LDNUs shall be funded by the Interconnection Customer(s) either by means of drawing down the Interconnection Financial Security or by the provision of additional capital, at each Interconnection Customer's election, up to a maximum amount no greater than that established by the cost responsibility assigned to each Interconnection Customer(s). The applicable Participating TO(s) shall be responsible for funding any capital costs for the RNUs and LDNUs that exceed the total cost responsibility assigned to the Interconnection Customer(s).

- (a) Where the funding responsibility for any RNUs and LDNUs has been assigned to a single Interconnection Customer, the applicable Participating TO(s) shall invoice the Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, up to a maximum amount no greater than that established by the cost responsibility assigned to each Interconnection Customer(s) for the RNUs or LDNUs, respectively.
- (b) Where the funding responsibility for an RNU has been assigned to more than one Interconnection Customer in accordance with this GIDAP, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such RNU in accordance with their respective cost responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the cost responsibility assigned to that Interconnection Customer.
- (c) Where the funding responsibility for an LDNU has been assigned to more than one Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such LDNUs based on their respective cost responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the cost responsibility assigned to that Interconnection Customer.
- (d) Where the funding responsibility for an ADNU being constructed by one or more Participating TO has been assigned to more than one Option (B) Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such ADNUs based on their respective cost responsibilities.

Any permissible extension of the Commercial Operation Date of a Generating Facility will not alter the Interconnection Customer's obligation to finance Network Upgrades where the Network Upgrades are required to meet the earlier Commercial Operation Date(s) of other Generating Facilities that have also been assigned cost responsibility for the Network Upgrades.

14.3.2 Repayment of Amounts Advanced for Network Upgrades and Refund of Interconnection Financial Security

14.3.2.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

Upon the Commercial Operation Date of a Generating Facility that is not a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades as follows.

For RNUs, in accordance with the Interconnection Customer's cost responsibility assigned, up to a maximum of \$60,000 per MW of generating capacity as specified in the GIA.

For LDNUs, except for LDNUs for Option (B) Generating Facilities that were not allocated TP Deliverability, in accordance with the Interconnection Customer's assigned cost responsibility.

Option (B) Generating Facilities that were not allocated TP Deliverability will not receive repayment for LDNUs or ADNUs.

Such repayment amount shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Generating Facility's Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the Commercial Operation Date.

For Network Upgrades for which the Interconnection Customer did not receive repayment, the Interconnection Customer will be eligible to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with the CAISO Tariff Section 36.11 associated with the Network Upgrades, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the Generating Facility in accordance with the GIA.

14.3.2.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades for that completed phase in accordance with the Interconnection Customer's cost responsibility assigned for the phase and subject to the limitations specified in Section 14.3.2.1, if all of the following conditions are satisfied:

- (a) The Generating Facility is capable of being constructed in phases:
- (b) The Generating Facility is specified in the GIA as being constructed in phases;
- (c) The completed phase corresponds to one of the phases specified in the GIA;

- (d) The phase has achieved Commercial Operation and the Interconnection Customer has tendered notice of the same pursuant to the GIA:
- (e) All parties to the GIA have confirmed that the completed phase meets the requirements set forth in the GIA and any other operating, metering, and interconnection requirements to permit generation output of the entire capacity of the completed phase as specified in the GIA;
- (f) The Network Upgrades necessary for the completed phase to meet the desired level of Deliverability are in service; and
- (g) The Interconnection Customer has posted one hundred (100) percent of the Interconnection Financial Security required for the Network Upgrades for all the phases of the Generating Facility (or if less than one hundred (100) percent has been posted, then all required Interconnection Financial Security instruments to the date of commencement of repayment).
- Upon satisfaction of these conditions (a) through (g), the Interconnection

 Customer shall be entitled to receive a partial repayment of its financed cost responsibility in an amount equal to the percentage of the Generating Facility declared to be in Commercial Operation multiplied by the cost of the Network

 Upgrades associated with the completed phase. The Interconnection Customer shall be entitled to repayment in this manner for each completed phase until the entire Generating Facility is completed.

A reduction in the electrical output (MW capacity) of the Generating Facility pursuant to Article 5.19.4 of the LGIA shall not diminish the Interconnection Customer's right to repayment pursuant to this Section. If the GIA includes a partial termination provision and the partial termination right has been exercised with regard to a phase that has not been built, then the Interconnection Customer's eligibility for repayment under this Section as to the remaining phases shall not be diminished. If the Interconnection Customer completes one or more phases and then defaults on the GIA, the Participating TO and the CAISO shall be entitled to offset any losses or damages resulting from the default against any repayments made for Network Upgrades related to the completed phases provided that the party seeking to exercise the offset has complied with any requirements which may be required to apply the stream of payments utilized to make the repayment to the Interconnection Customer as an offset.

Any repayment amount for completion of a phase shall include any tax gross-up or other tax-related payments associated with the Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the date by the requirements of items (a) through (g) above have been fulfilled,; or (2) any alternative payment schedule that associates the completion of Network Upgrades with the completion of particular phases and that is mutually agreeable to the Interconnection Customer and Participating TO.

14.3.2.3 Interest Payments and Assignment Rights

Any phased or non-phased repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. The Interconnection Customer may assign such repayment rights to any person.

14.4 Special Provisions For Affected Systems, Other Affected PTOs

The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected Participating TO(s), as applicable. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected Participating TO(s) as well as the repayment by the owner of the Affected System and/or other affected Participating TO(s). If the affected entity is another Participating TO, the initial form of agreement will be the GIA, as appropriately modified.

Any repayment by the owner of the Affected System shall be in accordance with FERC Order No. 2003-B (109 FERC ¶ 61,287).

Section 15 Miscellaneous

15.1 Confidentiality

For the purposes of this Section 15.1, "Party" or "Parties" shall mean the CAISO, Participating TO(s), Interconnection Customer or any combination of the CAISO, Participating TO(s) or the Interconnection Customer.

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Parties receiving the information that the information is confidential.

If requested by any Party, the other Parties shall provide in writing, the basis for asserting that the information referred to in this Section warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

These confidentiality provisions are limited to information provided pursuant to this GIDAP.

15.1.1 Scope

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of the GIA; or (6) is required, in accordance with Section 15.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the . Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Parties that it no longer is confidential.

15.1.2. Release of Confidential Information

No Party shall release or disclose Confidential Information to any other person, except to its employees, consultants, Affiliates (limited by FERC's Standards of Conduct requirements set forth in Part 358 of FERC's Regulations, 18 C.F.R. Part 358), or to Affected Systems, or to parties who may be or considering providing financing to or equity participation with the Interconnection Customer, or to potential purchasers or assignees of the Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section.

15.1.3 **Rights**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Parties. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by a Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

15.1.4 No Warranties

By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.

15.1.5 Standard of Care

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Parties under these procedures or its regulatory requirements.

15.1.6 Order of Disclosure

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of these confidentiality provisions. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

15.1.7 Remedies

Monetary damages are inadequate to compensate a Party for another Party's breach of its obligations under this Section 15.1. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party breaches or threatens to breach its obligations under this Section 15.1, which

equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the breach of this Section 15.1, but shall be in addition to all other remedies available at law or in equity. Further, the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 15.1.

15.1.8 Disclosure to FERC, its Staff, or a State

Notwithstanding anything in this Section 15.1 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. Section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other applicable Parties when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. Section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

- 15.1.9 Subject to the exception in Section 15.1.8, any Confidential Information shall not be disclosed by the other Parties to any person not employed or retained by the other Parties, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Parties, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this GIDAP or as a transmission service provider or a Balancing Authority including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Parties in writing of the information it claims is confidential. Prior to any disclosures of another Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.
- 15.1.10 This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a breach of this provision).
- 15.1.11 The Participating TO or CAISO shall, at the Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

15.2 Delegation Of Responsibility

The CAISO and the Participating TOs may use the services of subcontractors as deemed appropriate to perform their obligations under this GIDAP. The applicable Participating TO or CAISO shall remain primarily liable to the Interconnection Customer for the

performance of its respective subcontractors and compliance with its obligations of this GIDAP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

15.3 [Not Used]

15.4 [Not Used]

15.5 Disputes

If an Interconnection Customer disputes withdrawal of its Interconnection Request under Section 3.8, the CAISO will forward any information regarding the disputed withdrawal received under Section 3.8 within one (1) Business Day to the GIDAP Executive Dispute Committee, consisting of the Vice President responsible for administration of this GIDAP, the CAISO Vice President responsible for customer affairs, and an additional Vice President. The GIDAP Executive Dispute Committee shall have five (5) Business Days to determine whether or not to restore the Interconnection Request. If the GIDAP Executive Dispute Committee concludes that the Interconnection Request should have been withdrawn, the Interconnection Customer may seek relief in accordance with the CAISO ADR Procedures.

All disputes, other than those arising from Section 3.8, arising out of or in connection with this GIDAP whereby relief is sought by or from the CAISO shall be settled in accordance with the CAISO ADR Procedures.

<u>Disputes arising out of or in connection with this GIDAP not subject to the CAISO ADR Procedures shall be resolved as follows:</u>

15.5.1 Submission

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the GIA, the GIDAP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) calendar days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the GIA and GIDAP.

15.5.2 External Arbitration Procedures

Any arbitration initiated under these procedures shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) calendar days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) calendar days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s)

shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 15.5, the terms of this Section 15.5 shall prevail.

15.5.3 Arbitration Decisions

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) calendar days of appointment and shall notify the Parties in writing of such decision and the reasons therefore. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the GIA and shall have no power to modify or change any provision of the GIA and in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, or Network Upgrades.

15.5.4 Costs

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

15.6 Local Furnishing Bonds

15.6.1 Participating TOs That Own Facilities Financed by Local Furnishing Bonds

This provision is applicable only to a Participating TO that has financed facilities for the local furnishing of electric energy with Local Furnishing Bonds. Notwithstanding any other provisions of this, the Participating TO and the CAISO shall not be required to provide Interconnection Service to the Interconnection Customer pursuant to this and the GIA if the provision of such Interconnection Service would jeopardize the tax-exempt status of any Local Furnishing Bond(s) issued for the benefit of the Participating TO.

15.6.2 Alternative Procedures for Requesting Interconnection Service

If a Participating TO determines that the provision of Interconnection Service requested by the Interconnection Customer would jeopardize the tax-exempt status of any Local Furnishing Bond(s) issued for the benefit of the Participating TO, it shall advise the Interconnection Customer and the CAISO within (30) calendar days of receipt of the Interconnection Request.

The Interconnection Customer thereafter may renew its request for the same interconnection Service by tendering an application under Section 211 of the Federal Power Act, in which case the Participating TO, within ten (10) calendar days of receiving a copy of the Section 211 application, will waive its rights to a request for service under Section 213(a) of the Federal Power Act and to the issuance of a proposed order under Section 212(c) of the Federal Power Act, and the CAISO and Participating TO shall provide the requested Interconnection Service pursuant to the terms and conditions set forth in this and the GIA.

15.7 Change In CAISO Operational Control

If the CAISO no longer has control of the portion of the CAISO Controlled Grid at the Point of Interconnection during the period when an Interconnection Request is pending, the CAISO shall transfer to the applicable former Participating TO or successor entity which has ownership of the Point of Interconnection any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net deposit amount and the costs that the former Participating TO or successor entity incurs to evaluate the request for interconnection shall be paid by or refunded to the Interconnection Customer, as appropriate. The CAISO shall coordinate with the applicable former Participating TO or successor entity which has ownership of the Point of Interconnection to complete any Interconnection Study, as appropriate, that the CAISO has begun but has not completed. If the CAISO has tendered a draft GIA to the Interconnection Customer but the Interconnection Customer has neither executed the GIA nor requested the filing of an unexecuted GIA with FERC, unless otherwise provided, the Interconnection Customer must complete negotiations with the applicable former Participating TO or successor entity which has the ownership of the Point of Interconnection.

<u>Appendix 1 Interconnection Request</u> <u>INTERCONNECTION REQUEST</u>

Provide three copies of this completed form pursuant to Section 7 of this Appendix 1 below.

1.	
	Facility with the CAISO Controlled Grid pursuant to the CAISO Tariff (check one):
	Fast Track ProcessIndependent Study Process.
	Queue Cluster process.
	Annual Deliverability Assessment pursuant to Section 9.
2.	This Interconnection Request is for (check one):
	A proposed new Generating Facility.
	An increase in the generating capacity or a Material Modification to an existing Generating
	Facility.
3.	Requested Deliverability Status is for (check one):
<u>J.</u>	Full Capacity (For Independent Study Process and Queue Cluster Process only)
	(Note – Deliverability analysis for Independent Study Process is conducted with
	the next annual Cluster Study)
	Partial Deliverability for MW of electrical output (For Independent Study Process and Queue
	<u>Cluster Process only)</u>
	Energy Only
4.	The Interconnection Customer provides the following information:
	Allows of the first first first of the control of t
	a. Address or location, including the county, of the proposed new Generating Facility site or,
	in the case of an existing Generating Facility, the name and specific location, including the county, of the existing Generating Facility;
	the country, of the existing deflerating racility,
	Project Name:
	Project Location:
	Street Address:
	City, State:
	County:
	Zip Code:
	GPS Coordinates:
	b. Maximum net megawatt electrical output (as defined by section 2.c of Attachment A to
	b. Maximum net megawatt electrical output (as defined by section 2.c of Attachment A to this appendix) of the proposed new Generating Facility or the amount of net megawatt
	increase in the generating capacity of an existing Generating Facility;
	increase in the generaling eapasity of an existing constanting radiity,
	Maximum net megawatt electrical output (MW): or
	Net Megawatt increase (MW):
	c. Type of project (i.e. gas turbine hydro wind etc.) and general description of the
	C TOOL OF DISTRICT OF THE TRANSPORT OF THE

equipment configuration (if more than 1 type is chosen include net MW for each);

	Cogeneration	(MW)
-	Reciprocating Engine	(MW)
	Biomass	(MW)
	Steam Turbine	(MW)
	Gas Turbine	(MW)
	Wind	(MW)
	Hydro	(MW)
	Photovoltaic	(MW)
	Combined Cycle	(MW)
	Other (please describe):	
Gen	eral description of the equipment configu	
d.		ransmission is needed to the facility), Trial
		ration Date by day, month, and year and term of
	service (dates must be sequential);	
	osed Trial Operation Date:	
	osed Commercial Operation Date:	
Prop	osed Term of Service (years):	
<u>e.</u>		nd e-mail address of the Interconnection
	Customer's contact person (primary p	erson who will be contacted);
	Name:	
	Title:	
	Company Name:	
	Street Address:	
	City, State:	
	Zip Code:	
	Phone Number:	
	Fax Number:	
	Email Address:	
	DUNS Number:	
f.	Approximate location of the proposed	Point of Interconnection (i.e., specify transmission
1.		oltage level, and the location of interconnection);
	radinty intersormoduon point name, ve	mago lovol, and the location of interconnection),
g.	Interconnection Customer data (set for	orth in Attachment A)
		
	The Interconnection Customer sha	Il provide to the CAISO the technical data called
		nnection Request. Three (3) copies are required.
Appli	cable denosit amount made navable to C	California ISO. Send check to CAISO (see section 7
	cable deposit amount made payable to c v for details) along with the:	pamornia 130. Seria check to CAISO (See Section /
	connection Request for processing.	
	hment A (Interconnection Request Gene	rating Eacility Data)
Allac	ninent A (interconnection Request Gene	Tating Facility Data).
Evide	ance of Site Exclusivity as specified in the	e GIDAP and name(s), address(es) and contact
	mation of site owner(s) (check one):	S OIDAL and hame(3), address(es) and contact
111011	nation of site owner(s) (check one).	
le att	ached to this Interconnection Request	
		te Exclusivity will be provided at a later date in
	rdance with this	e Exolusivity will be provided at a later date III
<u> </u>	IGGIOG WILLI LING	

<u>7. </u>	This Interconnection Request shall be submitted to the CAISO representative indicated below
	New Resource Interconnection California ISO P.O. Box 639014 Folsom, CA 95763-9014
	Overnight address: 250 Outcropping Way, Folsom, CA 95630
8.	Representative of the Interconnection Customer to contact:
	[To be completed by the Interconnection Customer] Name:
	Title:
	Company Name:
	Street Address:
	City, State:
	Zip Code:
	Phone Number:
	Fax Number:
	Email Address:
9.	This Interconnection Request is submitted by:
	Legal name of the Interconnection Customer:
	By (signature):
	Name (type or print):
	Title:
	Date:

Interconnection Request

Attachment A Generating Facility Data

GENERATING FACILITY DATA

Provide three copies of this completed form.

<u>1. </u>	Provide two original prints and one reproducible copy (no larger than 36" x 24")	of the
	following:	

- A. Site drawing to scale, showing generator location and Point of Interconnection with the CAISO Controlled Grid.
- B. Single-line diagram showing applicable equipment such as generating units, step-up transformers, auxiliary transformers, switches/disconnects of the proposed interconnection, including the required protection devices and circuit breakers. For wind and photovoltaic generator plants, the one line diagram should include the distribution lines connecting the various groups of generating units, the generator capacitor banks, the step up transformers, the distribution lines, and the substation transformers and capacitor banks at the Point of Interconnection with the CAISO Controlled Grid.

2 .	Generatir	ng Facilit	y Informa	<u>ation</u>

Α.	Total Generating Facility rated output (MW):
B.	Generating Facility auxiliary Load (MW):
C.	Project net capacity (A-B)(MW):
D.	Standby Load when Generating Facility is off-line (MW):
<u>D.</u> E.	Number of Generating Units:
	(Please repeat the following items for each generator)
<u>F. </u>	Individual generator rated output (MW for each unit):
G.	Manufacturer:
H.	Year Manufactured
l.	Nominal Terminal Voltage (kV):
J.	Rated Power Factor (%):
K.	Type (Induction, Synchronous, D.C. with Inverter):
L.	Phase (three phase or single phase):
M.	Connection (Delta, Grounded WYE, Ungrounded WYE, impedance grounded):
N.	Generator Voltage Regulation Range (+/- %):
Ο.	Generator Power Factor Regulation Range:
P.	For combined cycle plants, specify the plant net output capacity (MW) for an outage o
	the steam turbine or an outage of a single combustion turbine

3. Synchronous Generator – General Information:

(Please repeat the following for each generator model)

<u>A.</u>	Rated Generator speed (rpm):	
B.	Rated MVA:	
C.	Rated Generator Power Factor:	
<u>D.</u>	Generator Efficiency at Rated Load (%):	_
<u>E.</u>	Moment of Inertia (including prime mover):	
<u>F. </u>	Inertia Time Constant (on machine base) H:	sec or MJ/MVA
<u>G.</u>	SCR (Short-Circuit Ratio - the ratio of the field current re	equired for rated open-circui
	voltage to the field current required for rated short-circu	uit current):
<u>H. </u>	Please attach generator reactive capability curves.	
	Rated Hydrogen Cooling Pressure in psig (Steam Units	only):

<u>J.</u>	. Please attach a plot of generator terminal voltage versus field current that shows the air						
	gap line, the open-circuit saturation curve, and the saturation curve at full load and rate						
	power factor.						
Excita	tion System Information						
	e repeat the following for each generator model)						
4-10-010	<u></u>						
<u>A.</u>	Indicate the Manufacturer and Type of						
	excitation system used for the generator. For exciter type, please choose from 1 to 9						
	below or describe the specific excitation system.						
	(1) Rotating DC commutator exciter with continuously acting regulator. The						
	regulator power source is independent of the generator terminal voltage and						
	 current. Rotating DC commentator exciter with continuously acting regulator. The 						
	(2) Rotating DC commentator exciter with continuously acting regulator. The regulator power source is bus fed from the generator terminal voltage.						
	(3) Rotating DC commutator exciter with non-continuously acting regulator (i.e.,						
	regulator adjustments are made in discrete increments).						
	(4) Rotating AC Alternator Exciter with non-controlled (diode) rectifiers. The						
	regulator power source is independent of the generator terminal voltage and						
	current (not bus-fed).						
	(5) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers. The regulator						
	power source is fed from the exciter output voltage.						
	(6) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers.						
	(7) Static Exciter with controlled (thyristor) rectifiers. The regulator power source is bus-fed from the generator terminal voltage.						
	(8) Static Exciter with controlled (thyristor) rectifiers. The regulator power source is						
	bus-fed from a combination of generator terminal voltage and current						
	(compound-source controlled rectifiers system.						
	(9) Other (specify):						
<u>B.</u>	Attach a copy of the block diagram of the excitation system from its instruction manual.						
	The diagram should show the input, output, and all feedback loops of the excitation						
0	system.						
<u>C.</u>	Excitation system response ratio (ASA): Full load rated exciter output voltage:						
<u>Б.</u> F	Maximum exciter output voltage (ceiling voltage):						
F.	Other comments regarding the excitation system?						
_							
	System Stabilizer Information						
	e repeat the following for each generator model. All new generators are required to install nless an exemption has been obtained from WECC. Such an exemption can be obtained						
	s that do not have suitable excitation systems.)						
ior arm	o that as not have saltable systems.						
Α.	Manufacturer:						
B.	Is the PSS digital or analog?						
C.	Note the input signal source for the PSS?						
	Bus frequency Shaft speed Bus Voltage						
_	Other (specify source)						
<u>D.</u>	Please attach a copy of a block diagram of the PSS from the PSS Instruction Manual and						
E.	the correspondence between dial settings and the time constants or PSS gain. Other comments regarding the PSS?						

6.		ne-Governor Information
	(Pleas	e repeat the following for each generator model)
		e complete Part A for steam, gas or combined-cycle turbines, Part B for hydro turbines, and for both.
	<u>A.</u>	Steam, gas or combined-cycle turbines:
		(1) List type of unit (Steam, Gas, or Combined-cycle): (2) If steam or combined-cycle, does the turbine system have a reheat process (i.e., both high and low pressure turbines)? (3) If steam with reheat process, or if combined-cycle, indicate in the space provided, the percent of full load power produced by each turbine: Low pressure turbine or gas turbine: High pressure turbine or steam turbine: """
	<u>B.</u>	Hydro turbines:
		(1) Turbine efficiency at rated load:
	<u>C.</u>	Complete this section for each machine, independent of the turbine type.
		(1) Turbine manufacturer: (2) Maximum turbine power output: MW (3) Minimum turbine power output (while on line): MW (4) Governor information: (a) Droop setting (speed regulation): (b) Is the governor mechanical-hydraulic or electro-hydraulic (Electro-hydraulic governors have an electronic speed sensor and transducer.)?
		(c) Other comments regarding the turbine governor system?
<u>7.</u>	Induc	tion Generator Data:
	<u>A.</u> B.	Rated Generator Power Factor at rated load: Moment of Inertia (including prime mover):
	<u>C.</u>	Do you wish reclose blocking? Yes, No
		Note: Sufficient capacitance may be on the line now, or in the future, and the generator may self-excite unexpectedly.
	<mark>7a</mark> Numb	Wind Generators er of generators to be interconnected pursuant to this Interconnection Request:

	Average Site Elevation:	Single Phase	Three Phase
	Field Volter		
	Field Volts:		
	Field Amperes: Motoring Power (MW):		
		· Applicable):	
	Neutral Grounding Resistor (II		
	<u>I22t or K (Heating Time Const</u> Rotor Resistance:	·	
	Rotor Resistance: Stator Resistance:		
	Stator Reactance: Rotor Reactance:		
	Magnetizing Reactance:		
	Short Circuit Reactance:		
	Exciting Current:		
	Temperature Rise:		
	Frame Size:		
	Design Letter:		
	Reactive Power Required In V	_ /are (No Load):	
	Reactive Power Required In V		
	Total Rotating Inertia, H:		MVA Rase
	Total Notating Inertia, 11.	r er omit om to	DIVIVA Dase
	Note: A completed General El	actric Company Pow	er Systems Load Flow (PSLF) data sheet must
			her data sheets are more appropriate to the
	proposed device then they sha		
	proposed device their triey sin	an be provided and d	scussed at Ocoping Meeting.
	Generator Short Circuit Data	a	
			actances expressed in p.u. on the generator
	base:	ovide the fellowing re	actances expressed in p.a. on the generator
	 X"1 – positive sequence s 	ubtransient reactand	e. bii _{**}
	 X2 – negative sequence r 		
	 X0 – zero sequence react 		-
	X0 - Zeio sequence react	ance.	
	Generator Grounding (select	1 for each model).	
	Scherator Grounding (Sciect	i ioi caon modelj.	
	A Solidly grounded		
	B. Grounded through	an impedance	
	(Impedance value in p.u c		p.u.
	X: p.u.)	iii generatur base. K.	μ.u.
	C Ungrounded		
	o ongrounded		
	Stan-Un Transformer Data		
	Step-Up Transformer Data		
	For each stop up transformer	fill out the data form	provided in Table 1
	For each step-up transformer,	iiii out the data form	provided in Table 1.
	Interconnection Escilities Li	no Doto	
<u>). </u>	Interconnection Facilities Li	ne Data	
	There is no need to provide d	ata far navi linaa that	are to be planned by the Porticipating TO
			are to be planned by the Participating TO.
			ned by the generation developer, please
	provide the following informati	<u>on:</u>	
	nol Voltago		
	nal Voltage: kV		
	<u>ength:</u> mile	2S	
ne t	ermination Points:		

Conductor Type: Size:
If bundled. Number per phase:, Bundle spacing:in.
Phase Configuration. Vertical:, Horizontal:
Phase Spacing: A-B: ft., B-C: ft., C-A: ft.
Distance of lowest conductor to Ground at full load and 40 C:o ft
Ground Wire Type: Size: Distance to Ground: ft
Attach Tower Configuration Diagram
Summer line ratings in amperes (normal and emergency)
Positive Sequence Resistance (R):p.u.** (for entire line length)
Positive Sequence Reactance: (X): p.u**(for entire line length)
Zero Sequence Resistance (R0): p.u.** (for entire line length)
Zero Sequence Reactance: (X0): p.u** (for entire line length)
Line Charging (B/2):p.u**
** On 100-MVA and nominal line voltage (kV) Base
10a. For Wind/photovoltaic plants, provide collector System Equivalence Impedance Data
Provide values for each equivalence collector circuit at all voltage levels.
Nominal Voltage:
Summer line ratings in amperes (normal and emergency)
Positive Sequence Resistance (R1):p.u. ** (for entire line length of each collector circuit)
Positive Sequence Reactance: (X1): p.u** (for entire line length of each collector circuit)
Zero Sequence Resistance (R0): p.u. ** (for entire line length of each collector circuit)
Zero Sequence Reactance: (X0): p.u** (for entire line length of each collector circuit)
Line Charging (B/2): p.u** (for entire line length of each collector circuit)
** On 100-MVA and nominal line voltage (kV) Base
11. Inverter-Based Machines
Number of inverters to be interconnected pursuant to this Interconnection Request:
Inverter manufacturer, model name, number, and version:
List of adjustable set points for the protective equipment or software:
Max design fault contribution current:
Harmonics Characteristics:
Tal monito on a rational and a second a second and a second a second and a second a second and a
Start-up requirements:
Ctart up requirements.
Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet must
be supplied with the Interconnection Request. If other data sheets are more appropriate to the
proposed device then they shall be provided and discussed at Scoping Meeting.
proposed device their they shall be provided and discussed at scoping Meeting.

12. Load Flow and Dynamic Models:

Provide load flow model for the generating plant and its interconnection facilities in GE PSLF *.epc format, including new buses, generators, transformers, interconnection facilities. An equivalent model is required for the plant with generation collector systems. This data should reflect the technical data provided in this Attachment A.

For each generator, governor, exciter and power system stabilizer, select the appropriate dynamic model from the General Electric PSLF Program Manual and provide the required input data. Include any user written *.p EPCL files to simulate inverter based plants' dynamic responses (typically needed for inverter based PV/wind plants). Provide a completed *.dyd file that contains the information specified in this section.

If you require assistance in developing the models, we suggest you contact General Electric. Accurate models are important to obtain accurate study results. Costs associated with any changes in facility requirements that are due to differences between model data provided by the generation developer and the actual generator test data, may be the responsibility of the generation developer.

TABLE 1

TRANSFORMER DATA (Provide for each level of transformation)

<u>UNIT</u>		
NUMBER OF TRANSFORMERS	PHASE	

NUMBER OF TRANSFORMERS PHASE						
RATING	H Winding	X Winding	Y Winding			
Rated MVA						
Connection (Delta, Wye, Gnd.)						
Cooling Type (OA,OA/FA, etc):						
Temperature Rise Rating						
Rated Voltage						
BIL						
Available Taps (% of rating)						
Load Tap Changer? (Y or N)						
Tap Settings						
<u>IMPEDANCE</u>	H-X	H-Y	X-Y			
Percent						
MVA Base						
Tested Taps						
WINDING RESISTANCE	<u>H</u>	<u>X</u>	<u>Y</u>			
<u>Ohms</u>						
CURRENT TRANSFORMER RATIO	<u>S</u>					
<u>H X </u>	<u>Y</u>	<u>N</u>				
Percent exciting current at 100 % Voltage; 110% Voltage						

Supply copy of nameplate and manufacture's test report when available

Appendix 2 [Intentionally Omitted]

Appendix 3

GENERATOR INTERCONNECTION STUDY PROCESS AGREEMENT FOR QUEUE CLUSTERS

	THIS AGREEMENT	is made and entered into this	day of	, 20	by and between	<u>een</u>
	, a	organized and exist	ing under th	ne laws of tl	ne State of	<u>,</u>
("Interco	onnection Customer")	and the California Independe	nt System (Operator Co	orporation, a	California
nonprof	it public benefit corpo	pration existing under the laws	of the State	e of Californ	nia, ("CAISO")	. The
Intercor	nnection Customer ar	nd the CAISO each may be ref	erred to as	a "Party," o	r collectively a	as the
"Parties	. 11	-		-	-	

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated _____; and

WHEREAS, the Interconnection Customer desires to interconnect the Generating Facility with the CAISO Controlled Grid pursuant to the Queue Cluster process; and

WHEREAS, the Interconnection Customer has requested the CAISO to conduct or cause to be performed Interconnection Studies to assess the system impact of interconnecting the Generating Facility to the CAISO Controlled Grid and to specify and estimate the cost of the equipment, engineering, procurement and construction work needed on the Participating TO's electric system in accordance with Good Utility Practice to physically and electrically connect the Generating Facility to the CAISO Controlled Grid;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- Mhen used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Generation Interconnection Procedures in CAISO Tariff Appendix DD or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the CAISO shall conduct or cause to be performed Interconnection Studies, including any accelerated Interconnection Study, in accordance with the CAISO Tariff.
- 3.0 The scope of the Interconnection Studies shall be subject to the assumptions set forth in Appendices A and B to this Agreement.
- 4.0 The Interconnection Studies will be based upon the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, subject to any modifications in accordance with Section 6.7.1 of the and modifications to the proposed Commercial Operation Date of the Generating Facility permitted by the . The CAISO reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Studies. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the Interconnection Studies may be modified as specified in the .

- 5.0 The Interconnection Study report for each Interconnection Study shall provide the information specified in the GIDAP.
- 6.0 The Interconnection Customer shall provide an Interconnection Study Deposit, a Site Exclusivity Deposit, if applicable, and other Interconnection Financial Security for the performance of the Interconnection Studies in accordance with the provisions of Sections 3.5.1 and 11 of the GIDAP.

Following the issuance of an Interconnection Study report, the CAISO shall charge and the Interconnection Customer shall pay its share of the actual costs of the Interconnection Study pursuant to Section 3.5.1 of the GIDAP.

Any difference between the deposits made toward the Interconnection Study process and associated administrative costs, including any accelerated studies, and the actual cost of the Interconnection Studies and associated administrative costs shall be paid by or refunded to the Interconnection Customer, in the appropriate allocation, in accordance with Section 3.5.1 of the GIDAP.

- 7.0 Pursuant to Section 3.7 of the GIDAP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The CAISO may provide a copy of the Phase I Interconnection Study results to an Affected System Operator and the Western Electricity Coordinating Council.

 Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection.
- 8.0 Substantial portions of technical data and assumptions used to perform the Phase I
 Interconnection Study, such as system conditions, existing and planned generation, and
 unit modeling, may change after the CAISO provides the Interconnection Study results to
 the Interconnection Customer. Interconnection Study results will reflect available data at
 the time the CAISO provides the Phase I Interconnection Study report to the
 Interconnection Customer. The CAISO shall not be responsible for any additional costs,
 including, without limitation, costs of new or additional facilities, system upgrades, or
 schedule changes, that may be incurred by the Interconnection Customer as a result of
 changes in such data and assumptions.

9.0 **[NOT USED]**

- 10.0 The CAISO shall maintain records and accounts of all costs incurred in performing the Interconnection Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the CAISO's offices and at its own expense, to audit the CAISO's records as necessary and as appropriate in order to verify costs incurred by the CAISO. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the CAISO representative, within one hundred eighty (180) calendar days following receipt by the Interconnection Customer of the CAISO's notification of the final costs of the Interconnection Study.
- 11.0 In accordance with Section 3.8 of the GIDAP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate, subject to the requirements of Section 3.5.1 and 11.4 of the GIDAP.
- Pursuant to Section 6.1.1 of the GIDAP, this Agreement shall become effective upon the date the fully executed Agreement is received by the CAISO. If the CAISO does not receive the fully executed Agreement and deposit or other Interconnection Financial

Security pursuant to Section 3.5.1 of the GIDAP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the GIDAP.

- 13.0 Miscellaneous.
- 13.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 15.5 of the GIDAP.
- 13.2 Confidentiality. Confidential Information shall be treated in accordance with Section 15.1 of the GIDAP.
- 13.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 13.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the or such Appendix to the , as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 13.6 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 13.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

13.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 13.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 13.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 13.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 13.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 13.13 Reservation of Rights. The CAISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 13.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 13.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent

of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

<u>IN WITNESS THEREOF</u>, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

California Independent System Operator Corporation	
<u>By:</u>	
Printed Name:	
Title:	
Date:	
[Insert name of the Interconnection Customer]	
By:	
Printed Name:	
Title:	
Date:	

Appendix A

ASSUMPTIONS USED IN CONDUCTING THE PHASE I INTERCONNECTION STUDY

The Phase I Interconnection Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on , subject to any modifications in accordance with Section 6.2of the GIDAP, and the following assumptions:

modifications in accordance with Section 6	6.2of the GIDAP, and the following assumptions:
Designation of Point of Interconne	ection and configuration to be studied.
Deliverability status requested	
(Full Capacity,	narrount of Full Connector
Partial Deliverability for Energy only)	percent of Full Capacity

NOTICE: YOUR CHOICE OF DELIVERABILITY STATUS CAN AFFECT YOUR ABILITY TO QUALIFY YOUR GENERATING FACILITY AS A RESOURCE ADEQUACY RESOURCE OR AFFECT YOUR TRANSACTIONS FOR SALE OF POWER. PLEASE GIVE CONSIDERATION TO YOUR CHOICE OF DELIVERABILITY STATUS

Appendix B

DATA FORM TO BE PROVIDED BY THE INTERCONNECTION CUSTOMER PRIOR TO COMMENCEMENT OF THE PHASE II INTERCONNECTION STUDY

Generating Facility size (MW):
Provide two copies of this completed form and other required plans and diagrams in accordance with Section 8.1 of the GIDAP.
Provide location plan and one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.
One set of metering is required for each generation connection to the new bus or existing CAISO Controlled Grid station. Number of generation connections:
On the one line indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)
On the one line indicate the location of auxiliary power. (Minimum load on CT/PT)
Will an alternate source of auxiliary power be available during CT/PT maintenance? Yes No
Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No (Please indicate on one line).
What type of control system or PLC will be located at the Interconnection Customer's Generating Facility?
What protocol does the control system or PLC use?
Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.
Physical dimensions of the proposed interconnection station:
Bus length from generation to interconnection station:
Line length from interconnection station to the Participating TO's transmission line.
Tower number observed in the field (Painted on tower leg)*

Number of third party easements required for transmission lines*:
* To be completed in coordination with the Participating TO or CAISO.
Is the Generating Facility in the Participating TO's service area?
<u>Yes No</u>
Local service provider for auxiliary and other power:
Please provide proposed schedule dates:
Environmental survey start:
Environmental impact report submittal:
Procurement of project equipment:
Begin Construction Date:
Generator step-up transformer Date: receives back feed power
Generation Testing Date:
Commercial Operation Date:
Level of Deliverability: Choose one of the following:
Energy Only
Full Capacity
TP Deliverability: Choose one of the following:
Option (A), which means that the Generating Facility requires TP Deliverability to be able to continue to commercial operation.
Option (B), which means that the Interconnection Customer will continue to commercial operation without an allocation of TP Deliverability.

Appendix 4

AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY AGREEMENTS

This Agreement for the Allocation of Ro	<u>esponsibiliti</u>	ies With Re	egard to Ge	enerator Ir	nterconne	<u>ction</u>
Procedures and Interconnection Study Agreem	ents ("Agre	eement"), c	dated			, is
entered into between the California Independent	nt System (Operator C	orporation	("CAISO"	and [NAI	ME OF
PTO]	<u>("PŤO"). T</u>	he CAISO	and PTO a	are jointly	referred to	as the
"Parties" and individually as a "Party"						

WHEREAS, this Agreement will ensure an independent assessment of new Generating Facility impacts on the CAISO Controlled Grid and take advantage of the respective expertise of the Parties to facilitate efficient and cost effective Interconnection Study procedures in a manner consistent with the Federal Energy Regulatory Commission's ("FERC") July 1, 2005 Order (112 FERC ¶ 61,009), FERC's August 26, 2005 Order (112 FERC ¶ 61,231), and prior FERC Orders recognizing that Order No. 2003 did not allocate responsibilities between transmission owners and transmission providers for the provision of Interconnection Service and suggesting those parties enter into an agreement to allocate those responsibilities. Southwest Power Pool, Inc., 106 FERC ¶ 61,254 (2004).

NOW THEREFORE, in view of the respective responsibilities assigned to the Parties and the foregoing FERC orders, and the provisions of the CAISO's Generator Interconnection Procedures set forth in CAISO Tariff Appendix DD, the CAISO and PTO agree to the following allocation of responsibilities for a centralized Interconnection Study process under the direction and oversight of the CAISO:

1. **DEFINITIONS**

Unless otherwise defined herein, all capitalized terms shall have the meaning set forth in the CAISO Tariff.

2. TERM OF AGREEMENT

This Agreement shall become effective upon the date specified in the first paragraph above and shall remain in effect until (1) terminated by all Parties in writing, or (2) with respect to the PTO, upon the termination of that entity's status as a PTO pursuant to the Transmission Control Agreement, as amended from time to time.

3. PROVISIONS FOR ALLOCATION OF RESPONSIBILITIES BETWEEN CAISO AND PTO

2.1 Interconnection Service: The Parties acknowledge that, as the transmission provider, the CAISO is responsible for reliably operating the transmission grid. The Parties also recognize that while the CAISO is a transmission provider under the CAISO Tariff, the CAISO does not own any transmission facilities, and the PTO owns, constructs, and maintains the facilities to which Generating Facilities are to be interconnected, and that the PTO may construct or modify facilities to allow the interconnection. While the Parties recognize that the CAISO will be responsible for conducting or causing to be performed Interconnection Studies and similar studies, the PTO will participate in these studies and conduct certain portions of studies, under the direction and oversight of, and approval by, the CAISO, as provided in this Agreement. The CAISO shall not enter into any Interconnection Study agreement with an Interconnection Customer that is contrary to these rights.

3.2 [INTENTIONALLY LEFT BLANK]

3.3 Transmission Owners' Right to Participation in Studies, Committees and Meetings:

- 3.3.1 In the event that an Interconnection Customer proposes to interconnect a
 Generating Facility with the PTO's facilities, or the PTO is an owner of an
 affected system, the PTO shall have the right to participate in any
 Interconnection Study or any other study conducted in connection with such
 request for Interconnection Service. "Participate" in this Section 3.3.1 means
 physically perform any study or portion thereof in connection with an
 Interconnection Request, under the direction and oversight of, and approval by,
 the CAISO pursuant to Section 3.4 of this Agreement; provide or receive input,
 data or other information regarding any study or portion thereof consistent with
 Section 3.4 of this Agreement; and, when any study or portion thereof in
 connection with an Interconnection Request is physically performed by an entity
 other than the PTO, perform activities necessary to adequately review or
 validate, as appropriate, any results of the study or portions thereof and provide
 recommendations.
- 3.3.2 In the event that an Interconnection Customer proposes to interconnect a

 Generating Facility with the PTO's facilities, or the PTO is an owner of an

 affected system, the PTO shall have the right to participate in all meetings

 expressly established pursuant to the CAISO. As appropriate, the PTO may

 participate in all other material or substantive communications in connection with
 an Interconnection Request.
- 3.4 Interconnection Study Responsibility Allocation: In complying with its responsibility for conducting or causing to be performed Interconnection Studies, the CAISO will assign responsibility for performance of portions of the Interconnection Studies to the PTO, under the direction and oversight of, and approval by, the CAISO, as set forth in Attachment A, except as specifically qualified as follows:
 - For any tasks specifically assigned to the PTO pursuant to Attachment A or otherwise mutually agreed upon by the CAISO and the PTO, the CAISO reserves the right, on a case-by-case basis, to perform or reassign to a mutually agreed upon and pre-qualified contractor such task only where: (a) the quality and accuracy of prior PTO Interconnection Study work product resulting from assigned tasks has been deemed deficient by the CAISO, the CAISO has notified the PTO pursuant to the notice provision of Section 4.16 of this Agreement in writing of the deficiency, and the deficiency has not been cured pursuant to Section 3.4.2 of this Agreement; (b) the timeliness of PTO Interconnection Study work product has been deemed deficient, and either (i) the CAISO has not been notified of the reasons and actions taken to address the timeliness of the work, or (ii) if notified, the stated reasons and actions taken are insufficient or unjustifiable and the PTO has not cured the deficiency pursuant to Section 3.4.2 of this Agreement; (c) the PTO has failed, in a mutually agreed upon timeframe, to provide the CAISO with information or data related to an Interconnection Request despite a written request by the CAISO, pursuant to Section 3.5 hereof, to do so, and such data is the responsibility of the PTO to provide to the CAISO, subject to Section 4.3 of this Agreement; (d) the PTO advises the CAISO in writing that it does not have the resources to adequately or timely perform the task according to the applicable timelines set forth in Attachment A; or (e) the estimated cost of the PTO performing the task has been determined in writing by the CAISO to significantly exceed the cost of the CAISO or mutually agreed upon contractor performing the task, inclusive of the costs that will be incurred by the PTO in exercising its review rights of the results of any such tasks performed by such third party(ies). If the CAISO deviates from the assignments set forth in Attachment A based on the foregoing factors, the

CAISO will provide the PTO with a written explanation for the deviation and any associated reassignments of work. The PTO may contest the deviation pursuant to the Dispute Resolution procedures set forth in Section 4.1 of this Agreement.

<u>Task(s)</u> may only be reassigned in accordance with this Section 3.4.1 where the PTO has been deemed to be deficient in relation to that (those) particular task(s).

3.4.2 Cure for reassigned Interconnection Study work

The CAISO shall not reassign task(s) without the opportunity to cure, as specified in Section 3.4.1 of this Agreement. The following actions will serve to cure the deficiencies and result in restoring the assignment(s) as provided in Attachment A:

- (a) The CAISO and PTO shall negotiate in good faith and agree to a corrective action plan proposed by the PTO, including a reasonably adequate cure period, and the corrective action plan is satisfactorily implemented.
- (b) The CAISO determines the deficiency is cured without an action plan.
- 3.4.3 Assessment of prior PTO Interconnection Study work shall only be based on work conducted under the process that becomes effective concurrent with the effective date of this Agreement. Further, assessment of prior PTO Interconnection Study work shall be based on work conducted no earlier than the eighteen (18) month period prior to the date of the CAISO notice of deviation from assignments set forth in Attachment A to this Agreement.
- Information Exchange: The PTO shall provide the CAISO, subject to confidentiality requirements in Section 4.3 of this Agreement, with any documentation or data requested by the CAISO reasonably necessary to permit the CAISO to perform, review, validate and approve any Interconnection Study, or portion thereof, performed by the PTO. The CAISO shall provide the PTO with any documentation or data requested by the PTO, subject to confidentiality requirements in Section 4.3 of this Agreement, reasonably necessary to perform, review, and validate any Interconnection Study, or portion thereof.
- 3.6 Consistency with Provisions for Centralized Interconnection Study Process: The CAISO and PTO have determined that the processes and allocation of responsibilities in Section 3.4 of this Agreement ensure that impacts to the CAISO Controlled Grid are independently assessed and that the assignment of responsibilities minimizes handoffs, takes advantage of non-transferable skills, and promotes the efficiency and cost-effectiveness of the centralized Interconnection Study processes, consistent with Section 3.2.
- 3.7 Re-Studies: If any re-studies are required, the CAISO will confer with the PTO as to the need for a re-study. The CAISO will make the final determination regarding the need for a re-study, subject to dispute resolution procedures.
- 3.8 Use of Contractors: Nothing in this Agreement shall prevent either the CAISO or the PTO from using qualified, mutually agreed upon third party contractors to meet that Party's rights or obligations under this Agreement or the . To promote the efficiency of the process, the CAISO and PTO will collaborate to identify a list of the mutually agreed to qualified contractors available to the Parties.
- 3.9 Performance Standards: Each Party shall perform all of its obligations under the GIDAP, this Agreement, and any FERC approved Interconnection Study procedures that may be adopted by the CAISO to implement the GIDAP or this Agreement in accordance with

- Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice.
- 3.10 Recovery of Costs: In accordance with Section 3.5.1 of the GIDAP, the PTO shall recover all actual costs from the CAISO incurred in performing Interconnection Studies or portions thereof assigned to it by the CAISO, including all costs incurred in exercising its right to review, and make recommendations on, Interconnection Studies or portions thereof performed by the CAISO and/or contractors under Section 3.8 of this Agreement.

4 GENERAL TERMS AND CONDITIONS

- 4.1 Dispute Resolution: In the event any dispute regarding the terms, conditions, and performance of this Agreement is not settled informally, the Parties shall follow the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff.
- Liability: No Party to this Agreement shall be liable to any other Party for any direct, indirect, special, incidental or consequential losses, damages, claims, liabilities, costs or expenses (including attorneys fees and court costs) arising from the performance or non-performance of its obligations under this Agreement regardless of the cause (including intentional action, willful action, gross or ordinary negligence, or force majeure); provided, however, that a Party may seek equitable or other non-monetary relief as may be necessary to enforce this Agreement and that damages for which a Party may be liable to another Party under another agreement will not be considered damages under this Agreement.
- **4.3** Confidentiality: Confidential Information shall be treated in accordance with Section 14.1 of the GIDAP.
- 4.4 Binding Effect: This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 4.5 Conflicts: In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- Rules of Interpretation: This Agreement, unless a clear contrary intention appears, shall 4.6 be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section, Attachment, or Appendix means such Article or Section of this Agreement or such Attachment or Appendix to this Agreement, or such Section of the or such Appendix to the , as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article or Section; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 4.7 Entire Agreement: This Agreement, including all Attachments hereto, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants, which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 4.8 No Third Party Beneficiaries: This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- Waiver: The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by a Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Any waiver of this Agreement shall, if requested, be provided in writing. Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 4.10 Headings: The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 4.11 Multiple Counterparts: This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 4.12 Modification by the Parties: The Parties may amend this Agreement and any Appendices to this Agreement only (1) by mutual agreement of the Parties by a written instrument duly executed by the Parties, subject to FERC approval or (2) upon the issuance of a FERC order, pursuant to Section 206 of the Federal Power Act. It is the Parties' intent that FERC's right to change any provision of this Agreement shall be limited to the maximum extent permissible by law and that any such change, if permissible, shall be in accordance with the Mobile-Sierra public interest standard applicable to fixed rate agreements. United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956). Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations. Notwithstanding the foregoing, Attachment B (Notices) may be modified as set forth in Section 4.15 of this Agreement, and the CAISO and the PTO may from time to time mutually agree to deviate from Attachment A in accordance with the provisions of this Agreement, however, such deviation shall be subject to Section 4.9 of this Agreement and not considered a course of dealing.
- 4.13 No Partnership: This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act

on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

- 4.14 Assignment: This Agreement may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this Agreement without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
- 4.15 Notices: Any notice, demand, or request provided in this Agreement, or served, given, or made in connection with it, will be in writing and deemed properly served, given, or made if delivered in person, transmitted by facsimile, or sent by United States mail, postage prepaid, to the persons specified in Attachment B hereto unless otherwise provided in this Agreement. Any Party may at any time, by notice to all other Parties, change the designation or address of the person specified in Attachment B as the person who receives notices pursuant to this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement in multiple originals, each of which shall constitute and be an original effective agreement among the Parties.

By: Printed Name: Title: Date: [NAME OF PTO] By: Printed Name: Title: Date:

California Independent System Operator Corporation

ATTACHMENT A

INTERCONNECTION STUDY RESPONSIBILITY ALLOCATION

<u>Description of Generator Interconnection Process: Roles and Responsibilities of CAISO and PTOs.</u>

Purpose: This Attachment A to the "AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY AGREEMENTS" serves as further clarification of the roles and responsibilities of the parties to this Agreement. The CAISO will assign responsibility for performance of portions of the Interconnection Studies to the relevant PTOs, under the direction and oversight of, and approval by, the CAISO, as set forth in this Attachment A. This document serves as a general overview of only the roles and responsibilities as between the CAISO and PTOs. This Agreement does not include the process steps, involvement or obligations of the Interconnection Customer (IC). This Agreement is not inclusive of all procedures necessary to comply with all provisions of the GIA, and Generator Interconnection Study Process Agreement for Queue Clusters.

Interconnection Request (IR) Process

- 1. CAISO forwards the IR to the PTO within three (3) Business Days (BD) of receipt of IR from Interconnection Customer (IC)
- 2. PTO(s) provides any feedback regarding IR to CAISO within 3 BD
- 3. CAISO distributes draft Scoping Meeting minutes for review within 5 BD of Scoping Meeting.
- 4. PTO(s) provide any comments to the Scoping Meeting minutes within 2 BD of receipt of draft Scoping Meeting minutes.
- 5. CAISO issues the final Scoping Meeting minutes within 3 BD of receipt of comments.

Phase I Interconnection Study Timeline

	T	Typical	
<u>Line</u>	Phase I Cluster Study	<u>Typical</u> <u>Calendar</u> <u>Days</u>	<u>Timeline</u> (Days)
	CAISO and PTOs develop initial Generating Facility		
<u>1</u>	groups for initial Dispatch assumptions and cost	<u>1</u>	<u>1</u>
<u> </u>	allocation purposes (except for thermal overload and		<u> </u>
	short circuit mitigation).		
	PTOs develop draft Base Cases, each representing		
<u>2</u>	all Generating Facilities in the queue cluster, and	<u>14</u>	<u>2-15</u>
	deliver to CAISO.		
2	PTO develops preferred and alternative, if applicable,	4.4	0.45
<u>3</u>	direct interconnection plans, including the need for an Interconnection Grid Substation (IGS).	<u>14</u>	<u>2-15</u>
	CAISO reviews and approves direct interconnection		
<u>4</u>	plans and change files.	<u>5</u>	<u>16-20</u>
	CAISO updates deliverability base case. PTOs update		
	reliability base cases. PTOs develop draft contingency		
<u>5</u>	lists.	<u>10</u>	<u>21-30</u>
	CAISO reviews and approves reliability base cases	_	04.05
<u>6</u>	and contingency lists.	<u>5</u>	<u>31-35</u>
	CAISO performs peak Deliverability Assessment		
<u>7</u>	identifying constrained facilities and prepares results	<u>21</u>	<u>36-56</u>
	summary.		
	At the CAISO's direction, the PTOs perform the off-	<u>21</u>	
<u>8</u>	peak Load Flow, and summer peak and off-peak Post		<u>36-56</u>
_	Transient and Stability analyses and submits draft		
	study results to CAISO for review and direction.		
<u>9</u>	CAISO and PTOs develop mitigation plans and	<u>21</u>	<u>57-77</u>
	determine RNU and LDNU CAISO develops deliverability base case with TP		
<u>10</u>	upgrades only.	<u>7</u>	<u>78-84</u>
	CAISO performs deliverability assessment for the		
<u>11</u>	purpose of determining incremental ADNUs and	<u>21</u>	85-105
<u> </u>	proposes ADNU.	21	00-100
12	CAISO and PTOs finalize ADNU.	14	106-119
	CAISO develops shift factors for cost allocation		
<u>13</u>	purposes of all Network Upgrades and usage of	<u>7</u>	120-126
	previously triggered Network Upgrades.	_	
<u>14</u>	CAISO performs off-peak deliverability assessment.	<u>14</u>	<u>127-140</u>
Short C	Circuit Duty		
4.5	CAISO coordinates with other potentially affected	n/-	2/2
<u>15</u>	facility owners ¹ .	<u>n/a</u>	<u>n/a</u>
<u>16</u>	CAISO directs PTO to develop Base Case and run	106	21-126
10	short circuit analysis.	100	<u> </u>
	PTO performs facilities review. (Note: possibly for		
<u>17</u>	feedback into the power flow studies and PTO	<u>14</u>	<u>127-140</u>
	mitigation plans.)		
<u>18</u>	PTO prepares draft study results and submits to the	<u>14</u>	<u>141-154</u>
	CAISO for review and direction.		
Facility		124	24 4E4
<u>19</u>	At the CAISO's direction, PTO(s) prepares cost	<u>134</u>	<u>21-154</u>

	estimates and schedules for the direct assignment facilities and Network Upgrades identified in the power flow, short circuit duty, post transient, and stability studies.		
Study F			
<u>20</u>	At the CAISO's direction, PTO(s) prepares draft report for impacts in its service territory.	<u>120</u>	<u>21-140</u>
<u>21</u>	CAISO compiles all results into a draft report that covers grid impacts, as appropriate. CAISO reviews integrated draft report and submits comments, recommendations and direction to the PTO.	<u>10</u>	<u>141-150</u>
<u>22</u>	PTO incorporates CAISO's directions, conclusions and recommendations. If CAISO conclusions and recommendations conflict with PTO conclusions, then CAISO and PTO must coordinate to resolve conflicts. Any remaining conflicts must be noted in the final report. PTO submits final draft report to the CAISO.	<u>10</u>	<u>151-160</u>
<u>23</u>	CAISO finalizes the report and provides final approved report to ICs, PTO, and any applicable Affected Systems.	<u>10</u>	<u>161-170</u>
	CAISO performs Reassessment and prepares amended study reports for affected earlier queued interconnection customer interconnection requests.		

[footnote 1: In accordance with the WECC Short Circuit Duty Procedure]

Phase II Interconnection Study Process**

**All Interconnection Studies will be under the direction and oversight of, and approval by, the CAISO and may involve more than one PTO.

<u> </u>	sive more than one i i e:	

Line	Phase II Cluster Study	Typical Calendar Days	<u>Timeline</u> (Days)
1	CAISO and PTOs update Base Cases based on the	7	1-7
<u>2</u>	annual reassessment study results. CAISO reviews and approves Base Cases.	<u> </u>	<u>8-14</u>

	PTOs update contingency lists.		15 10
<u>3</u>	CAISO reviews and approves contingency lists. CAISO performs peak Deliverability Assessment	<u>5</u>	<u>15-19</u>
<u>4</u>	identifying constrained facilities and prepares results	<u>21</u>	20-40
_	summary.		
	At the CAISO's direction, the PTOs perform the off-		
<u>5</u>	peak Load Flow, and summer peak and off-peak Post	<u>21</u>	20-40
	Transient and Stability analyses and submit draft	<u> </u>	<u>==</u>
6	study results to CAISO for review and direction.	24	44 64
<u>6</u>	CAISO and PTOs determine RNU and LDNU. CAISO performs peak Deliverability Assessment for	<u>21</u>	<u>41-61</u>
<u>7</u>	Option B projects for the purpose of identifying ADNU.	<u>28</u>	<u>62-89</u>
	PTOs performs additional reliability assessment with		
<u>8</u>	all LDNUs modeled and identify	<u>28</u>	<u>62-89</u>
0	CAISO and PTOs determine ADNU and additional	4.4	00.400
<u>9</u>	RNU and LDNU.	<u>14</u>	<u>90-103</u>
<u>10</u>	CAISO develops cost allocation table.	<u>7</u>	<u>104-110</u>
<u>11</u>	CAISO performs off-peak Deliverability Assessment.	<u>14</u>	<u>111-124</u>
<u>12</u>	PTOs update short-circuit duty results with all RNU	<u>105</u>	20-124
	and LDNU.	<u></u>	20 12 1
<u>13</u>	PTOs update short-circuit duty results with ADNU.	<u>21</u>	<u>125-145</u>
<u>14</u>	CAISO performs operational deliverability	<u>60</u>	<u>111-170</u>
	assessment. PTOs perform operational reliability assessment.	60	111-170
15 Cturdus		<u>60</u>	111-170
<u>Study I</u>	Report Including Facility Costs and Schedules At the CAISO's direction, PTOs prepare detailed cost		
	estimates and schedules for the direct assignment		
<u>16</u>	facilities and schedules for RNU and LDNU identified	<u>91</u>	20-110
<u></u>	in the overall plan of service and including individual	<u> </u>	<u>=0c</u>
	segments.		
	At the CAISO's direction, PTOs prepare draft reports		
	that include detailed cost estimates and schedules for		
<u>17</u>	the direct assignment facilities and Network Upgrades	<u>131</u>	<u>20-150</u>
	identified in the overall plan of service and including		
	individual segments. CAISO reviews draft report and submits comments,		
<u>18</u>	recommendations and direction to the PTOs.	<u>14</u>	<u>151-164</u>
	PTOs incorporate CAISO directions, conclusions and		
<u>19</u>	recommendations and add operational assessment		
	conclusions to the draft report. If CAISO conclusions		
	and recommendations conflict with PTO conclusions,	<u>21</u>	<u>165-185</u>
	then CAISO and PTO must coordinate to resolve		
	conflicts. Any remaining conflicts must be noted in the		
	final report. CAISO finalizes the reports and tenders the reports to		
<u>20</u>	IC.	<u>20</u>	<u>186-205</u>
	<u>10-</u>		

ATTACHMENT B

CONTACTS FOR NOTICES

[Section 4.15]

California ISO

Manager, Transmission Engineering 250 Outcropping Way Folsom, CA 95630 Phone: 916.351.2104 Fax: 916.351.2264

[NAME OF PTO]

[Address of PTO]

Appendix 5 Schedule for Release and Review of Per Unit Costs

SCHEDULE FOR RELEASE AND REVIEW OF PER UNIT COSTS

_	Schedule for the Release and Review of Per	Anticipated
<u>Line</u>	Unit Costs	Calendar Date(s)
<u> </u>	Onit costs	<u>Calefidal Bate(S)</u>
?		
?		
?		
?		
?		
?		
?		
?		
?		
	Annual Review, Update, and Posting of Per Unit Costs	
?	PTOs to review and update their per unit costs.	October – mid-January
	PTOs to provide their updated per unit costs to	
?	the CAISO for CAISO review and posting to the	Mid-January
	CAISO Website.	
	CAISO to review and post the PTO per unit costs	Third we also follows and
?	to the CAISO Website for stakeholder review.	Third week of January
?	Provide two weeks for stakeholders to review the	Last week of January and
<u>[f]</u>	posted per unit costs.	first week of February
	CAISO to schedule and conduct a one-day	
?	stakeholder meeting in February to discuss the	Second week of February
	posted per unit costs with stakeholders.	
	Provide two weeks following the scheduled	Last two weeks of
?	stakeholder meeting for stakeholders to provide	February
	comments to the CAISO.	<u> </u>
?	Provide two weeks for CAISO and PTOs to	First two weeks of March
	review and address stakeholder comments.	
[5]	Provide three weeks following the stakeholder	First three weeks of
?	meeting for PTOs to review, update as needed,	<u>March</u>
	and finalize their per unit costs.	
?	PTOs to provide their final per unit costs to the	End of third week of March
	CAISO for posting to the CAISO Website. CAISO to review and post the PTOs' final per unit	
?	costs to the CAISO Website.	Fourth week of March
	Final per unit costs are posted and available for	
?	use to estimate the costs of Network Upgrades	Last week of March to
<u>[f]</u>	and Interconnection Facilities.	first of April
	and interconficulting acidities.	

Appendix 6 GIDAP AGREEMENT FOR INDEPENDENT STUDY PROCESS

THIS AGREEMENT is made and entered into this day of , 20 by and between , a organized and existing under the laws of the State of , ("Interconnection Customer") and the California Independent System Operator Corporation, a California nonprofit public benefit corporation existing under the laws of the State of California, ("CAISO"). The Interconnection Customer and the CAISO each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by the Interconnection Customer dated _____; and

WHEREAS, the Interconnection Customer desires to interconnect the Generating Facility with the CAISO Controlled Grid pursuant to the Independent Study Process; and

WHEREAS, the Interconnection Customer has requested the CAISO to conduct or cause to be performed Interconnection Studies to assess the system impact of interconnecting the Generating Facility to the CAISO Controlled Grid and to specify and estimate the cost of the equipment, engineering, procurement and construction work needed on the Participating TO's electric system in accordance with Good Utility Practice to physically and electrically connect the Generating Facility to the CAISO Controlled Grid;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the CAISO's FERC-approved Generation Interconnection
 Procedures in CAISO Tariff Appendix DD or the Master Definitions Supplement,
 Appendix A to the CAISO Tariff, as applicable.
- 2.0 The Interconnection Customer elects and the CAISO shall conduct or cause to be performed Interconnection Studies in accordance with the CAISO Tariff.
- 3.0 The scope of the applicable Interconnection Studies shall be subject to the assumptions set forth in Appendices A and B to this Agreement.
- 4.0 The Interconnection Studies will be based upon the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, subject to any modifications in accordance with Section 6.1.2 of the GIDAP and modifications to the proposed Commercial Operation Date of the Generating Facility permitted by the . The CAISO reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Studies. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the Interconnection Studies may be modified as specified in the .
- 5.0 The Interconnection Study report for each Interconnection Study shall provide the information specified in the GIDAP.

6.0 The Interconnection Customer shall provide an Interconnection Study Deposit and other Interconnection Financial Security for the performance of the Interconnection Studies in accordance with the provisions of Sections 3.5.1 and 11 of the GIDAP.

Following the issuance of an Interconnection Study report, the CAISO shall charge and the Interconnection Customer shall pay its share of the actual costs of the Interconnection Study pursuant to Section 3.5.1 of the GIDAP.

Any difference between the deposits made toward the Interconnection Study process and associated administrative costs, including any accelerated studies, and the actual cost of the Interconnection Studies and associated administrative costs shall be paid by or refunded to the Interconnection Customer, in the appropriate allocation, in accordance with Section 3.5.1 of the GIDAP.

- 7.0 Pursuant to Section 3.7 of the GIDAP, the CAISO will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems. The CAISO may provide a copy of the System Impact Study results to an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection.
- 8.0 Substantial portions of technical data and assumptions used to perform the System Impact Study, such as system conditions, existing and planned generation, and unit modeling, may change after the CAISO provides the Interconnection Study results to the Interconnection Customer. Interconnection Study results will reflect available data at the time the CAISO provides the System Impact Study report to the Interconnection Customer. The CAISO shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.
- 9.0 The CAISO shall maintain records and accounts of all costs incurred in performing the Interconnection Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the CAISO's offices and at its own expense, to audit the CAISO's records as necessary and as appropriate in order to verify costs incurred by the CAISO. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the CAISO representative, within one hundred eighty (180) calendar days following receipt by the Interconnection Customer of the CAISO's notification of the final costs of the Interconnection Study.
- 10.0 In accordance with Section 3.8 of the GIDAP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the CAISO. Upon receipt of such notice, this Agreement shall terminate, subject to the requirements of Sections 3.5.1 and 15.1 of the GIDAP.
- 11.0 This Agreement shall become effective upon the date the fully executed Agreement is received by the CAISO. If the CAISO does not receive the fully executed Agreement and deposit or other Interconnection Financial Security pursuant to Section 3.5.1 of the GIDAP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the GIDAP.
- 12.0 Miscellaneous.

- 12.1 Dispute Resolution. Any dispute, or assertion of a claim, arising out of or in connection with this Agreement, shall be resolved in accordance with Section 15.5 of the GIDAP.
- 12.2 Confidentiality. Confidential Information shall be treated in accordance with Section 15.1 of the GIDAP.
- 12.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 12.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the or such Appendix to the , as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".
- 12.6 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 12.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 12.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this

Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO or CAISO. Any waiver of this Agreement shall, if requested, be provided in writing.

Any waivers at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.

- 12.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 12.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 12.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 12.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 12.13 Reservation of Rights. The CAISO shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 12.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 12.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing

arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

<u>IN WITNESS THEREOF</u>, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

California Independent System Operator Corporation
_By:
Printed Name:
_Title:
_Date:
[Insert name of the Interconnection Customer]
_By:
Printed Name:
_Title:

Appendix A

ASSUMPTIONS USED IN CONDUCTING THE SYSTEM IMPACT STUDY

The System Impact Study will be based upon the information set forth in the Interconnection

Request and agreed upon in the Scoping Meeting held on , subject to any modifications in accordance with Section 6.1.2 of the GIDAP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

<u>Deliverability Status requested (Full Capacity, Partial Deliverability, or Energy-Only)</u>

Appendix B Data Form, Pre-Facilities Study

DATA FORM TO BE PROVIDED BY THE INTERCONNECTION CUSTOMER PRIOR TO COMMENCEMENT OF THE FACILITIES STUDY

Generating Facility size (MW):
Provide two copies of this completed form and other required plans and diagrams in accordance with Section 4.5 of the GIDAP.
Provide location plan and one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.
One set of metering is required for each generation connection to the new bus or existing CAISO Controlled Grid station. Number of generation connections:
On the one line indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)
On the one line indicate the location of auxiliary power. (Minimum load on CT/PT)
Will an alternate source of auxiliary power be available during CT/PT maintenance? Yes No
Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No (Please indicate on one line).
What type of control system or PLC will be located at the Interconnection Customer's Generating Facility?
What protocol does the control system or PLC use?
Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.
Physical dimensions of the proposed interconnection station:
Bus length from generation to interconnection station:
Line length from interconnection station to the Participating TO's transmission line.
Tower number observed in the field (Painted on tower leg)*

Number of third party easements required for transmission lines*:
* To be completed in coordination with the Participating TO or CAISO.
Is the Generating Facility in the Participating TO's service area?
<u>Yes No</u>
Local service provider for auxiliary and other power:
Please provide proposed schedule dates:
Environmental survey start:
Environmental impact report submittal:
Procurement of project equipment:
Begin Construction Date:
Generator step-up transformer Date:
receives back feed power
Generation Testing Date:
Commercial Operation Date:
Level of Deliverability Status: Choose one of the following:
Energy-Only
Full Capacity
Partial Capacity (expressed in fraction of Full Capacity)

Appendix 7

Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Participating TO ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business

 Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten

 Business Days of receipt that the Application is or is not complete and, if not, advises what
 material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Generator Interconnection and Deliverability Allocation Procedures (GIDAP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating
 Facility is authorized. If the witness test is not satisfactory, the Company has the right to
 disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a
 witness test has been performed, or previously waived on the Application. The Company is
 obligated to complete this witness test within ten Business Days of the receipt of the Certificate of
 Completion. If the Company does not inspect within ten Business Days or by mutual agreement
 of the Parties, the witness test is deemed waived.
- 7.0 Contact Information The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information Enter the legal names of the owner(s) of the Small Generating Facility.

 Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer				
Name:				
Contact Person:				
Address:				
City:	State:		Zip	
Telephone (Day):	(Eveni	ng):		
Fax:	E-Mail A	<u>.ddress:</u>		
Contact (if different from Interce	onnection Customer)			
Name:				
Address:				
City:	State:			Zip:
Telephone (Day):		Evening):		
Fax:		<u>ail Address:</u>		
Owner of the facility (include %	ownership by any ele	ectric utility):		
Small Generating Facility Inform	mation			
Location (if different from above				
Electric Service Company:	,			
Account Number:				
Inverter Manufacturer:		Model		
Nameplate Rating:	(kW)	(kVA)		(AC Volts)
Single Phase Three	ee Phase			
System Design Capacity:	(kW)		(kVA)	
Prime Mover: Photovoltaic R	eciprocating Engine	Fuel Cell		
Turbine Other _				
Energy Source: Solar Wind F	<u>lydro Diesel Natura</u>	<u>ll Gas</u>		
Fuel Oil Other	(describe)			
Is the equipment UL1741 Lister	d? Yes_	1	Vo	
If Yes, attach manufacturer's cut-sheet showing UL1741 listing				
Estimated Installation Date:		Estimated	In Comica	Data

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Appendices 9 and 10 of the Generator Interconnection Procedures (), or the Participating TO has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

<u>List components of the Small Generating Facility equipment package that are currently certified:</u>

	Certifying Entity
1.	
<u>2.</u> 3.	
<u>3. </u>	
5.	
<u></u>	
Interconnection Customer Signature	
I hereby certify that, to the best of my	knowledge, the information provided in this Application is true. I
	nditions for Interconnecting an Inverter-Based Small Generating
	urn the Certificate of Completion when the Small Generating Facility
has been installed.	
<u>Signed:</u>	
Title:	Date:
Contingent Approval to Interconnect	the Small Generating Facility
	The state of the s
(For Commons succeeded)	,
(For Company use only)	
	
Interconnection of the Small Generat	ing Facility is approved contingent upon the Terms and Conditions
Interconnection of the Small Generat for Interconnecting an Inverter-Based	
Interconnection of the Small Generat	ing Facility is approved contingent upon the Terms and Conditions
Interconnection of the Small Generat for Interconnecting an Inverter-Based Certificate of Completion.	ing Facility is approved contingent upon the Terms and Conditions
Interconnection of the Small Generat for Interconnecting an Inverter-Based	ing Facility is approved contingent upon the Terms and Conditions
Interconnection of the Small Generat for Interconnecting an Inverter-Based Certificate of Completion.	ing Facility is approved contingent upon the Terms and Conditions d Small Generating Facility No Larger than 10kW and return of the
Interconnection of the Small Generat for Interconnecting an Inverter-Based Certificate of Completion. Company Signature:	ing Facility is approved contingent upon the Terms and Conditions d Small Generating Facility No Larger than 10kW and return of the
Interconnection of the Small Generat for Interconnecting an Inverter-Based Certificate of Completion. Company Signature:	ing Facility is approved contingent upon the Terms and Conditions d Small Generating Facility No Larger than 10kW and return of the Date:
Interconnection of the Small Generat for Interconnecting an Inverter-Based Certificate of Completion. Company Signature: Title: Application ID number:	ing Facility is approved contingent upon the Terms and Conditions d Small Generating Facility No Larger than 10kW and return of the Date:
Interconnection of the Small Generat for Interconnecting an Inverter-Based Certificate of Completion. Company Signature: Title:	ing Facility is approved contingent upon the Terms and Conditions d Small Generating Facility No Larger than 10kW and return of the Date:

Small Generating Facility Certificate of Completion

Is the Small Generating Facility owner-install	ed? YesNo			
Interconnection Customer:				
Contact Person:				
Address:				
Location of the Small Generating Facility (if c	different from above):			
City:	State:	Zip Code:		
Telephone (Day):	(Evening):			
Fax:	E-Mail Address:			
Electrician:				
Name:				
Address:				
City:	State:	Zip Code:		
Telephone (Day):	(Evening):			
Fax:	E-Mail Addres	ss:		
License number:				
Date Approval to Install Facility granted by the Company:				
Application ID number:				
la an estica:				
Inspection:				
The Small Generating Facility has been installed and inspected in compliance with the local				
building/electrical code of				
Signed (Local electrical wiring inspector, or attach signed electrical inspection):				
Print Name:				
Date:				

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name:				
Company:				
Address:				
City	State	ZIP:		
Fax:				
Approval to Energize the Small Generating Facility (For Company use only) Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW Company Signature:				
Title:	Date	Đ:		

Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Participating TO (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

2.0 Interconnection and Operation

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the Company, and
- 2.3 The Company has either:
 - 2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or
 - 2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or
 - 2.3.3 The Company waives the right to inspect the Small Generating Facility.
- 2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.
- 2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 Access

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 Disconnection

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

- 5.1 For scheduled outages upon reasonable notice.
- <u>5.2 For unscheduled outages or emergency conditions.</u>
- 5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.
- 5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 Indemnification

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.0 Insurance

The Parties each agree to maintain commercially reasonable amounts of insurance.

8.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

9.1 By the Customer

By providing written notice to the Company.

9.2 By the Company

If the Small Generating Facility fails to operate for any consecutive 12-month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.3 Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

9.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

Appendix 8 [intentionally omitted]

Appendix 9 Certification Codes and Standards

<u>IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)</u>

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

<u>IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage</u> (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

Appendix 10

Certification of Small Generator Equipment Packages

- Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in Appendix 9, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

* * *

Attachment I - Marked SGIA Appendix FF

Generation Interconnection and Deliverability Allocation Procedures Amendment Filing

California Independent System Operator Corporation

Fifth Replacement FERC Electric Tariff

May 25, 2012

Appendix EE

Small Generator Interconnection Agreement for Interconnection Requests Processed Under the

Generator Interconnection and Deliverability Allocation Procedures

(Appendix DD to the CAISO Tariff)

This Small Generator Interco	nnection Agreement	t ("Agreement") is	s made and entered into	this
day of , 2	20 , by			
("Participating TO"), the Calif				
public benefit corporation organic	ganized and existing			
		("Int	terconnection Customer	<u>") each</u>
hereinafter sometimes referre	ed to individually as	<u>"Party" or referre</u>	d to collectively as the "	Parties."
Participating TO Information	<u>on</u>			
Participating TO:				
Attention:				_
Address:				<u></u>
City:Phone:		State:	Zip:	_
Phone:	Fax:		_	
CAISO Information				
Attention: Keith Johnson, Ma	anager Infrastructur	e Policy & Contra	acts Department	
151 Blue Ravine Road	anagor, minaotraotar	or oney a contro	doto Bopartinone	
Folsom, CA 95630				
Phone: 916-351-4400 Fax:				
E-mail: kjohnson@caiso.con		_		
				
Interconnection Customer	Information			
miorocino duotomo.	<u> </u>			
Interconnection Cust	tomor:			
Attention:	tomer.			
Address:				_
City:		State:	Zip:	_
Phone:		Ctate:		-
E-mail Address:	T UX.		_	
E man / adress.			_	
Interconnection Customer Ar	oplication No.			
Interconnection Customer Ap	opiication No.			
i di a ka				
In consideration of the mutua	al covenants set forth	nerein, the Part	ies agree as follows:	

Article 1. Scope And Limitations Of Agreement

- 1.1 This Agreement shall be used for all Small Generating Facility Interconnection Requests
 submitted under the Generator Interconnection and Transmission Allocation Procedures (GIDAP)
 set forth in Appendix DD except for those submitted under the 10 kW Inverter Process contained
 in GIDAP Appendix 7. For those Interconnection Requests, GIDAP Appendix 7 contains the
 terms and conditions which serve as the Interconnection Agreement.
- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Participating TO's Transmission System.

- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection

 Customer's power. The purchase or delivery of power and other services that the Interconnection

 Customer may require will be covered under separate agreements, if any. The Interconnection

 Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity in accordance with the CAISO Tariff.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between or among the Parties.

1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
 The Parties shall use the Large Generator Interconnection Agreement (CAISO Tariff Appendix CC) to interpret the responsibilities of the Parties under this Agreement.
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its

 Small Generating Facility and construct, operate, and maintain its Interconnection

 Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Participating TO shall construct, operate, and maintain its Interconnection Facilities and Upgrades in accordance with this Agreement, and with Good Utility Practice. The CAISO and the Participating TO shall cause the Participating TO's Transmission System to be operated and controlled in a safe and reliable manner and in accordance with this Agreement.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Participating TO and any Affected Systems. The Interconnection Customer shall comply with the Participating TO's Interconnection Handbook. In the event of a conflict between the terms of this Agreement and the terms of the Participating TO's Interconnection Handbook, the terms in this Agreement shall govern.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Participating TO and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the CAISO Controlled Grid, the Participating TO's electric system, the

Participating TO's personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

- 1.5.6 The Participating TO and the CAISO shall coordinate with Affected Systems to support the interconnection.
- 1.5.7 [This provision is intentionally omitted.]

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the CAISO Balancing Authority Area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the CAISO Tariff for the CAISO Controlled Grid and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power

- 1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the terminals of each generating unit at a power factor within the range of 0.95 leading to 0.90 lagging, unless the CAISO has established different requirements that apply to all similarly situated generators in the CAISO Balancing Authority Area on a comparable basis. The requirements of this paragraph shall not apply to wind generators and the requirements of Attachment 7 shall apply instead.
- 1.8.2 Payment to the Interconnection Customer for reactive power that the Small Generating Facility provides or absorbs when the CAISO requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1 will be made by the CAISO in accordance with the applicable provisions of the CAISO Tariff.
- 1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

1.10 TP Deliverability

To the extent that an Interconnection Customer is eligible for and has been allocated TP

Deliverability pursuant to Section 8.9 of the GIDAP, the Interconnection Customer's right to retain such allocated TP Deliverability shall be contingent upon satisfying the obligations set forth in Section 8.9.3 of the GIDAP.

Article 2. Inspection, Testing, Authorization, And Right Of Access

- 2.1 Equipment Testing and Inspection
 - 2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Participating TO and the CAISO of such activities no fewer than five (5)

 Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Participating TO and the CAISO may, at their own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Participating TO and the CAISO a written test report when such testing and inspection is completed.
 - 2.1.2 The Participating TO and the CAISO shall provide the Interconnection Customer written acknowledgment that they have received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Participating TO or the CAISO of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.
- 2.2 Authorization Required Prior to Parallel Operation
 - 2.2.1 The Participating TO and the CAISO shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Participating TO and the CAISO shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Participating TO and the CAISO shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
 - 2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Participating TO's Transmission System without prior written authorization of the Participating TO. The Participating TO will provide such authorization to the Interconnection Customer and the CAISO once the Participating TO receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access to Premises

2.3.1 Upon reasonable notice, the Participating TO and the CAISO may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three (3) Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the

<u>Participating TO and the CAISO at least five (5) Business Days prior to conducting any on-site verification testing of the Small Generating Facility.</u>

- 2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Participating TO and the CAISO shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.
- 2.3.3 Each Party shall be responsible for its own costs associated with following this article.

<u>Article 3. Effective Date, Term, Termination, And Disconnection</u>

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Participating TO and the CAISO shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of _____ years from the Effective Date (term specified in individual agreements to be ten (10) years or such other longer period as the Interconnection Customer may request) and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Participating TO and the CAISO twenty (20) Business Days written notice.
- 3.3.2 Any Party may terminate this Agreement after Default pursuant to article 7.6.
- 3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the CAISO Controlled Grid. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.
- 3.3.4 The termination of this Agreement shall not relieve any Party of its liabilities and obligations, owed or continuing at the time of termination.
- 3.3.5 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

<u>Temporary disconnection of the Small Generating Facility or associated Interconnection Facilities</u> shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions

"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; (2) that, in the case of the CAISO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the CAISO Controlled Grid or the electric systems of others to which the CAISO Controlled Grid is directly connected; (3) that, in the case of the Participating TO, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Participating TO's Transmission System, the Participating TO's Interconnection Facilities, Distribution System, or the electric systems of others to which the Participating TO's electric system is directly connected; or (4) that, in the case of the Interconnection Customer, is imminently likely (as determined in a nondiscriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the CAISO or the Participating TO may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Participating TO or the CAISO shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. The Interconnection Customer shall notify the Participating TO and the CAISO promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the CAISO Controlled Grid, the Participating TO's Interconnection Facilities, or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of the Interconnection Customer's or Participating TO's facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Participating TO or the CAISO may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the CAISO Controlled Grid when necessary for routine maintenance, construction, and repairs on the CAISO Controlled Grid or the Participating TO's electric system. The Party scheduling the interruption shall provide the Interconnection Customer with (5) five Business Days notice prior to such interruption. The Party scheduling the interruption shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

The Interconnection Customer shall update its planned maintenance schedules in accordance with the CAISO Tariff. The CAISO may request the Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the CAISO Controlled Grid in accordance with the CAISO Tariff. Such planned maintenance schedules and updates and changes to such schedules shall be provided by the Interconnection Customer to the Participating TO concurrently with their submittal to the CAISO.

3.4.3 Forced Outages

During any forced outage, the Participating TO or the CAISO may suspend interconnection service to effect immediate repairs on the CAISO Controlled Grid or the Participating TO's electric system. The Participating TO or the CAISO shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Participating TO or the CAISO shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection. The Interconnection Customer shall notify CAISO, as soon as practicable, of all forced outages or reductions of the Small Generating Facility in accordance with the CAISO Tariff.

3.4.4 Adverse Operating Effects

The Participating TO or the CAISO shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the CAISO Controlled Grid, the Participating TO's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Participating TO or the CAISO may disconnect the Small Generating Facility. The Participating TO or the CAISO shall provide the Interconnection Customer with (5) five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Participating TO and the CAISO before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the CAISO Controlled Grid or the Participating TO's electric system. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Participating TO's and the CAISO's prior written authorization, the Participating TO or the CAISO shall have the right to temporarily disconnect the Small Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, the Participating TO's electric system, and the CAISO Controlled Grid to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Costs for Interconnection Facilities & Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities
itemized in Attachment 2 of this Agreement. The Participating TO shall provide a best
estimate cost, including overheads, for the purchase and construction of its
Interconnection Facilities and provide a detailed itemization of such costs. Costs
associated with Interconnection Facilities may be shared with other entities that may

benefit from such facilities by agreement of the Interconnection Customer, such other entities, the CAISO, and the Participating TO.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Participating TO's Interconnection Facilities.

4.2 Distribution Upgrades

The Participating TO shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Participating TO and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility For Network Upgrades

5.1 Applicability

No portion of this Article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Participating TO shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement, except for Merchant Network Upgrades. If the Participating TO and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer. For costs associated with Area Delivery Network Upgrades, any cost estimates will be advisory in nature and will not be considered as definitive or as establishing a cap on the maximum cost responsibility of the Interconnection Customer for Area Delivery Network Upgrades.

5.2.1 Merchant Network Upgrades

If the Interconnection Customer is an Option (B) Interconnection Customer, the Interconnection Customer may elect to have a party other than the applicable Participating TO construct some or all of the LDNU and ADNU that the Interconnection Customer has the obligation to fund and that are not subject to reimbursement. Such LDNU and ADNU will be constructed and incorporated into the CAISO Controlled Grid pursuant to the provisions for Merchant Transmission Facilities in CAISO Tariff Sections 24.4.6.1 and 36.11.

5.3 Transmission Credits

No later than thirty (30) days prior to the Commercial Operation Date, the Interconnection Customer may make a one-time election by written notice to the CAISO and the Participating TO to receive Congestion Revenue Rights as defined in and as available under the CAISO Tariff at the time of the election in accordance with the CAISO Tariff, in lieu of a repayment of the cost of Network Upgrades in accordance with Article 5.3.1.

5.3.1 Repayment of Amounts Advanced for Network Upgrades

5.3.1.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

Upon the Commercial Operation Date of a Generating Facility that is not a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades as follows:

(a) For Reliability Network Upgrades, the Interconnection Customer shall be entitled to a repayment of the Interconnection Customer's assigned cost responsibility for Reliability Network Upgrades up to a maximum of \$60,000 per MW of generating capacity. For purposes of this determination, generating capacity will be based on the capacity of the Interconnection Customer's Generating Facility at the time it achieves Commercial Operation. To the extent that such repayment does not cover all of the costs of the Interconnection Customer's Reliability Network Upgrades, the Interconnection Customer shall receive CRRs for that portion of its Reliability Network Upgrades that are not covered by cash repayment.

(b) For Local Delivery Network Upgrades:

- i. If the Interconnection Customer is an Option (B) Interconnection

 Customer and has been allocated and continues to be eligible to
 receive TP Deliverability pursuant to the GIDAP, the
 Interconnection Customer shall be entitled to repayment of a
 portion of the total amount paid to the Participating TO for the
 cost of Local Delivery Network Upgrades for which it is
 responsible. The repayment amount shall be determined by
 dividing the amount of TP Deliverability received by the amount
 of deliverability requested by the Interconnection Customer, and
 multiplying that percentage by the total amount paid to the
 Participating TO by the Interconnection Customer for Local
 Delivery Network Upgrades.
- ii. If the Interconnection Customer is an Option (B) Interconnection
 Customer and has not been allocated any TP Deliverability, the
 Interconnection Customer shall not be entitled to repayment for
 the cost of Local Delivery Network Upgrades.
- (iii) If the Interconnection Customer is an Option (A) Interconnection

 Customer, the Interconnection Customer shall be entitled to a
 repayment equal to the total amount paid to the Participating TO
 for the costs of Local Delivery Network Upgrades for which it is
 responsible.

- (c) For Area Delivery Network Upgrades, the Interconnection Customer shall not be entitled to repayment for the costs of Area Delivery Network Upgrades.
- (d) If an Option (B) Interconnection Customer elects and is eligible to construct and own Merchant Network Upgrades as set forth in Article 5.2.1 of this SGIA, then the Interconnection Customer shall not be entitled to any repayment pursuant to this SGIA.

Such repayment amount shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this Agreement terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

<u>5.3.1.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities</u>

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, the Interconnection Customer shall be entitled to a repayment equal to the amount paid to the Participating TO for the cost of Network Upgrades for that completed phase for which the Interconnection Customer is responsible, subject to the limitations specified in Article 5.3.1.1, if all of the following conditions are satisfied:

- (a) The Generating Facility is capable of being constructed in phases;
- (b) The Generating Facility is specified in the SGIA as being constructed in phases;
- (c) The completed phase corresponds to one of the phases specified in the SGIA;
- (d) The Interconnection Customer has tendered notice pursuant to the SGIA that the phase has achieved Commercial Operation;
- (e) All parties to the SGIA have agreed that the completed phase meets the requirements set forth in the SGIA and any other operating, metering, and interconnection requirements to permit generation output of the entire capacity of the completed phase as specified in the SGIA;
- (f) The Network Upgrades necessary for the completed phase to meet the desired level of deliverability are in service; and

(g) The Interconnection Customer has posted one hundred (100) percent of the Interconnection Financial Security required for the Network Upgrades for all the phases of the Generating Facility.

Upon satisfaction of these conditions (a) through (g), the Interconnection Customer shall be entitled to receive a partial repayment of its financed cost responsibility, to the extent that it is otherwise eligible for such repayment pursuant to Article 5.3.1.1, in an amount equal to the percentage of the Generating Facility declared to be in Commercial Operation multiplied by the cost of the Network Upgrades associated with the completed phase. The Interconnection Customer shall be entitled to repayment in this manner for each completed phase until the entire Generating Facility is completed.

If the SGIA includes a partial termination provision and the partial termination right has been exercised with regard to a phase that has not been built, then the Interconnection Customer's eligibility for repayment under this Article as to the remaining phases shall not be diminished. If the Interconnection Customer completes one or more phases and then defaults on the SGIA, the Participating TO and the CAISO shall be entitled to offset any losses or damages resulting from the default against any repayments made for Network Upgrades related to the completed phases, provided that the party seeking to exercise the offset has complied with any requirements which may be required to apply the stream of payments utilized to make the repayment to the Interconnection Customer as an offset.

Any repayment amount for completion of a phase shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the Commercial Operation Date; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years from the Commercial Operation Date. Notwithstanding the foregoing, if this Agreement terminates within five (5) years from the Commercial Operation Date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

5.3.1.3 Interest Payments and Assignment Rights

Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment. Interest shall continue to accrue on the repayment obligation so long as this Agreement is in effect. The Interconnection Customer may assign such repayment rights to any person.

5.3.1.4 Failure to Achieve Commercial Operation

5.3.2 Special Provisions for Affected Systems

The Interconnection Customer shall enter into an agreement with the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid, as applicable, in accordance with the GIDAP. Such agreement shall specify the terms governing payments to be made by the Interconnection Customer to the owner of the Affected System and/or other affected owners of portions of the CAISO Controlled Grid. In no event shall the Participating TO be responsible for the repayment for any facilities that are not part of the Participating TO's Transmission System.

5.3.3 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

5.3.4 Compensation for Customer-Funded Upgrades Utilized by Subsequent Interconnection

Customers. If the Interconnection Customer funds Network Upgrades for which it is not
eligible for repayment, the Interconnection Customer will be entitled to direct
compensation by any Interconnection Customers in later Queue Clusters that utilize such
Network Upgrades. Such compensation will be determined based on the distribution flow
factors of the Generating Facilities that will be using the Network Upgrades.

Article 6. Billing, Payment, Milestones, And Financial Security

- 6.1 Billing and Payment Procedures and Final Accounting
 - 6.1.1 The Participating TO shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within thirty (30) calendar days of receipt, or as otherwise agreed to by the Parties. Notwithstanding the foregoing, any invoices between the CAISO and another Party shall be submitted and paid in accordance with the CAISO Tariff.
 - 6.1.2 Within six (6) months of completing the construction and installation of the Participating

 TO's Interconnection Facilities and/or Upgrades described in the Attachments to this

 Agreement, the Participating TO shall provide the Interconnection Customer with a final
 accounting report of any difference between (1) the Interconnection Customer's cost
 responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection
 Customer's previous aggregate payments to the Participating TO for such facilities or
 Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous
 aggregate payments, the Participating TO shall invoice the Interconnection Customer for
 the amount due and the Interconnection Customer shall make payment to the
 Participating TO within thirty (30) calendar days. If the Interconnection Customer's

previous aggregate payments exceed its cost responsibility under this Agreement, the Participating TO shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, as defined in article 7.5.1, it shall immediately notify the other Parties of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) request appropriate amendments to Attachment 4. The Parties affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) they will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) they have reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements for Small Generating Facilities Processed Under the Fast Track
Process or Small Generating Facilities Processed under SGIP

The terms and conditions of this Article 6.3 shall apply only to

Small Generating Facilities that are no larger than 5 MW that are processed under the
Fast Track Process under the GIDAP, CAISO Tariff Appendix DD.

In such case, the terms of Article 6.4 below do not apply to this Agreement.

For easy reference, the Parties shall check the Box below when this Article 6.3 applies:

[] THIS ARTICLE 6.3 APPLIES

- 6.3.1 At least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Participating TO's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Participating TO, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Participating TO and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Participating TO's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Participating TO under this Agreement during its term.
- 6.3.2 If a guarantee is provided, the guarantee must be made by an entity that meets the creditworthiness requirements of the Participating TO, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

- 6.3.3 If a letter of credit or surety bond is provided, the letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Participating TO and must specify a reasonable expiration date.
- 6.4 Financial Security Arrangements for All Other Small Generating Facilities

<u>The terms of this Article 6.4 apply to Small Generating Facilities that have been processed under</u> either

- 1. the Cluster Study Process or
- 2. the Independent Study Track Process

of the GIDAP set forth in CAISO Tariff Appendix DD. In such case, the provisions of Article 6.3 do not apply to this Agreement.

In such case, the terms of Article 6.3 above do not apply to this Agreement.

For easy reference, the Parties shall check the Box below when this Article 6.4 applies:

[] THIS ARTICLE 6.4 APPLIES

- 6.4.1 The Interconnection Customer is obligated to provide all necessary Interconnection

 Financial Security required under Section 9 of the GIDAP in a manner acceptable under

 Section 9 of the GIDAP. Failure by the Interconnection Customer to timely satisfy the

 GIDAP's requirements for the provision of Interconnection Financial Security shall be

 deemed a breach of this Agreement and a condition of Default of this Agreement.
- 6.4.2 Notwithstanding any other provision in this Agreement for notice of Default and opportunity to cure such Default, the CAISO or the Participating TO shall provide Interconnection Customer with written notice of any Default due to timely failure to post Financial Security, and the Interconnection Customer shall have five (5) Business Days from the date of such notice to cure such Default by posting the required Financial Security. If the Interconnection Customer fails to cure the Default, then this Agreement shall be deemed terminated.

Article 7. Assignment, Liability, Indemnity, Force Majeure, And Default

7.1 Assignment

This Agreement may be assigned by any Party upon fifteen (15) Business Days prior written notice and opportunity to object by the other Parties; provided that:

- 7.1.1 Any Party may assign this Agreement without the consent of the other Parties to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Participating TO and the CAISO of any such assignment;
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Participating TO or the CAISO, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Participating TO and the CAISO of any such assignment.

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

Each Party's liability to the other Parties for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall any Party be liable to the other Parties for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

- 7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 7.2.
- 7.3.2 The Parties shall at all times indemnify, defend, and hold the other Parties harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from another Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.3.3 If an indemnified Party is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified Party may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.
- 7.3.5 Promptly after receipt by an indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, no Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or

revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

- 7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing by the Party claiming Force Majeure."
- 7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Parties, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Parties informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

- 7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of another Party. Upon a Default, the affected non-defaulting Party(ies) shall give written notice of such Default to the defaulting Party.

 Except as provided in Article 7.6.2 and in Article 6.4.2, the defaulting Party shall have sixty (60) calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.
- 7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the affected non-defaulting Party(ies) shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not such Party(ies) terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

- 8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Participating TO or CAISO, except that the Interconnection Customer shall show proof of insurance to the Participating TO and CAISO no later than ten Business Days prior to the anticipated Commercial Operation Date. If the Interconnection Customer is of sufficient credit-worthiness, it may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.
- 8.2 The Participating TO agrees to maintain general liability insurance or self-insurance consistent with the Participating TO's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Participating TO's liabilities undertaken pursuant to this Agreement.
- 8.3 The CAISO agrees to maintain general liability insurance or self-insurance consistent with the CAISO's commercial practice. Such insurance shall not exclude coverage for the CAISO's liabilities undertaken pursuant to this Agreement.
- 8.4 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to another Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.
- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Parties and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
 - 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential

 Information obtained from the other Parties as it employs to protect its own Confidential
 Information.

- 9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.
- 9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Parties to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

Article 10. Disputes

All disputes arising out of or in connection with this Agreement whereby relief is sought by or from CAISO shall be settled in accordance with the provisions of Article 13 of the CAISO Tariff, except that references to the CAISO Tariff in such Article 13 of the CAISO Tariff shall be read as reference to this Agreement. Disputes arising out of or in connection with this Agreement not subject to provisions of Article 13 of the CAISO Tariff shall be resolved as follows:

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at http://www.ferc.gov/legal/adr.asp.
- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- 10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

Article 11. Taxes

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other Parties to maintain the other Parties' tax status.
 Nothing in this Agreement is intended to adversely affect the Participating TO's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of _______ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by all of the Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

<u>12.4 Waiver</u>

- 12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- 12.4.2 Any waiver at any time by any Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or Default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Participating TO. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement among the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between or among the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all transmission providers, market participants, and interconnection customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Parties, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Parties. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Parties copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

- 12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Participating TO or the CAISO be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The CAISO and Participating TO shall each have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following articles of this Agreement and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these articles:

Introductory Paragraph, 1.1, 1.2, 1.3, 1.4, 1.5.1, 1.5.2, 1.5.3, 1.5.4, 1.5.5, 1.5.6, 1.5.7, 1.6, 1.7, 1.8.1, 1.9, 2.1, 2.2.1, 2.3, 3, 4.1.1 (last sentence only), 5.1, 5.3, 6.2, 7, 8, 9, 11, 12, 13, Attachment 1, Attachment 4, Attachment 5, and Attachment 7.

The Participating TO shall have the exclusive right to make a unilateral filing with FERC to modify this Agreement pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following articles of this Agreement and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these articles:

2.2.2, 4.1.1 (all but the last sentence), 4.1.2, 4.2, 5.2, 6.1.1 (all but the last sentence), 6.1.2, 10 (all but preamble), Attachment 2, Attachment 3 and Attachment 6.

The CAISO shall have the exclusive right to make a unilateral filing with FERC to modify this Agreement pursuant to section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder with respect to the following articles of this Agreement and with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation covered by these articles:

1.8.2, 6.1.1 (last sentence only) and 10 (preamble only).

The Interconnection Customer, the CAISO, and the Participating TO shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise mutually agree as provided herein.

12.13 Annual Reassessment Process

In accordance with Section 7.4 of the GIDAP, the CAISO will perform an annual reassessment in which it will update certain base case data prior to beginning the GIDAP Phase II Interconnection Studies. As set forth in Section 7.4 of the GIDAP, the CAISO may determine through this assessment that Delivery Network Upgrades already identified and included in executed Generator Interconnection Agreements should be modified in order to reflect the current circumstances of Interconnection Customers in the queue, including any withdrawals therefrom, and any additions and upgrades approved in the CAISO's most recent Transmission Planning Process cycle. To the extent that this determination modifies the scope or characteristics of, or the financial responsibility for, any Delivery Network Upgrades determined pursuant to this SGIA, such modification(s) will be reflected through an amendment to this SGIA.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

	Interconnection Customer:		
	Attention:		
	Address:		
	City:	State:	Zip:
	Phone:	Fax:	
If to	the Participating TO:		
	Participating TO:		
	Attention:		
	Address:		
	City:	State:	Zip:
	Phone:	Fax:	
If to	the CAISO:		
	California Independent Sys	stem Operator	
	Attention:		
	151 Blue Ravine Road		
	Folsom, CA 95630		
	Phone: 916-351-4400	Fax:	
Rill	ing and Payment		
		t to the addresses set out below:	
וווט	ings and payments snail be sem	t to the addresses set out below.	<u>-</u>
Inte	erconnection Customer:		
	Attention:		
	Address:		
	City:	State:	Zip:
Pai	ticipating TO:		
	Attention:		<u>——</u>
	Address:		

13.3	Alternative Forms of Notice			
	Any notice or request required or p	permitted to be	given by any F	Party to the other Parties and no
	required by this Agreement to be g	given in writing	may be so give	en by telephone, facsimile or e-
	mail to the telephone numbers and	d e-mail addres	ses set out be	<u>low:</u>
	If to the Interconnection Customer	<u>:</u>		
	Interconnection Customer			
	Attention:			
	Address:			
	City:		State:	Zip:
	Phone:	Fax:	State.	<u>Z</u> ıp
	E-mail address:	гах		
	E-mail address.			
	If to the Participating TO:			
	Participating TO:			
	Attention:			
	Address:			
	City:		State:	Zip:
	Phone:			<u> </u>
	E-mail address:	ı ax.		
	E mail address.			
	If to the CAISO:			
	California Independent Sy	vstem Operator		
	Attention:	Stem Operator		
	151 Blue Ravine Road			
	Folsom, CA 95630			
	Phone: 916-351-4400	Fax:		
	E-mail address:	Гах		
	E-mail address.			
13.4	Designated Operating Representa	ative		
	The Parties may also designate or		entatives to co	nduct the communications whic
	may be necessary or convenient for			
	serve as the point of contact with r	respect to opera	ations and mai	ntenance of the Party's facilities
		-		-
	Interconnection Customer's Opera	ating Represent	tative:	
	Interconnection Customer	:		
	Attention:			
	Address:			
	City:		State:	Zip:
	Phone:	Fax:		
	Participating TO's Operating Repr	esentative:		
	r articipating 103 Operating Repr	esentative.		
	Participating TO:			
	Attention:			
	Address:			
	City:		State:	Zip:
	Phone:	Fax:		
	CAISO's Operating Representative	<u>e</u>		

California Independent System Operator Attention:
151 Blue Ravine Road Folsom, CA 95630 Phone: 916-351-4400 Fax:
13.5 Changes to the Notice Information Any Party may change this information by giving five Business Days written notice to the othe Parties prior to the effective date of the change.
Article 14. Signatures
IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.
For the California Independent System Operator
Name:
Title:
Date:
For the Participating TO
Name:
Title:
Date:
For the Interconnection Customer
Name:
Title:
Date:

Attachment 1 Glossary Of Terms

Affected System – An electric system other than the CAISO Controlled Grid that may be affected by the proposed interconnection, including the Participating TO's electric system that is not part of the CAISO Controlled Grid.

<u>Applicable Laws and Regulations</u> – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Area Deliverability Constraint – A previously identified transmission system operating limit, based on a CAISO interconnection study or transmission planning study and listed on the CAISO website, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

<u>Area Delivery Network Upgrade (ADNU)</u> – A transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

<u>Balancing Authority Area</u> - The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.

Business Day - Monday through Friday, excluding federal holidays and the day after Thanksgiving Day.

Commercial Operation Date – The date on which a Small Generating Facility commenced generating electricity for sale as agreed upon by the Participating TO and the Interconnection Customer and in accordance with any implementation plan agreed to by the Participating TO and the CAISO for multiple individual generating units or project phases at a Small Generating Facility where an Interconnection Customer intends to establish separate Commercial Operation Dates for those generating units or project phases.

Default – The failure of a breaching Party to cure its breach under this Agreement.

<u>Distribution System – Those non-CAISO-controlled transmission and distribution facilities owned by the Participating TO.</u>

<u>Distribution Upgrades</u> – The additions, modifications, and upgrades to the Participating TO's <u>Distribution System</u>. <u>Distribution Upgrades do not include Interconnection Facilities</u>.

Generator Interconnection and Deliverability Allocation Procedures (GIDAP) – The CAISO protocol that sets forth the interconnection and allocation procedures applicable to an Interconnection Request pertaining to a Small Generating Facility that is included in CAISO Tariff Appendix DD.

Good Utility Practice – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, CAISO, Participating TO, or any affiliate thereof.

Interconnection Facilities – The Participating TO's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Participating TO's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

<u>Interconnection Financial Security – Any of the financial instruments listed in Section 10.1 of the GIDAP that are posted by an Interconnection Customer.</u>

Interconnection Handbook – A handbook, developed by the Participating TO and posted on the Participating TO's website or otherwise made available by the Participating TO, describing technical and operational requirements for wholesale generators and loads connected to the Participating TO's Transmission System, as such handbook may be modified or superseded from time to time. The Participating TO's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and applicable reliability standards.

Interconnection Request – A request, in accordance with the CAISO Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the CAISO Controlled Grid.

Interconnection Study -

- (i) For Interconnection Requests processed under the Cluster Study Process described in the GIDAP, any of the following: the Phase I Interconnection Study conducted or caused to be performed by the CAISO, the reassessment of the Phase I Interconnection Study Base Case conducted or caused to be performed by the CAISO prior to the commencement of the Phase II Interconnection Study, or the Phase II Interconnection Study conducted or caused to be performed by the CAISO, pursuant to the GIDAP.
- (ii) For Interconnection Requests processed under the Independent Study Process described in the GIDAP, the governing study(ies) conducted or caused to be performed by the CAISO pursuant to the GIDAP, which shall consist primarily of a Facilities Study as described in Section 4.5 of the GIDAP, a System Impact Study as described in Section 4.4 of the GIDAP, and, as applicable to Full Capacity Deliverability Status or Partial Deliverability Status, Phase I and Phase Interconnection Studies as described in Section 2.4.3 of the GIDAP.

Local Deliverability Constraint – A transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign full capacity or partial capacity deliverability status to one or more additional generating facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

<u>Local Delivery Network Upgrade (LDNU)</u> – A transmission upgrade or addition identified by the CAISO in the GIDAP study process to relieve a Local Deliverability Constraint.

<u>CAISO Controlled Grid</u> – The system of transmission lines and associated facilities of the parties to a <u>Transmission Control Agreement that have been placed under the CAISO's Operational Control.</u>

<u>CAISO Tariff</u> – The CAISO's tariff, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

<u>Material Modification</u> – A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request with a later queue priority date.

<u>Merchant Network Upgrades</u> – Network Upgrades constructed and owned by an Interconnection Customer pursuant to Article 5.2.1 of this SGIA, Section 13.3 of the GIDAP, and Sections 24.4.6.1 and 36.11 of the CAISO Tariff.

Network Upgrades – Additions, modifications, and upgrades to the Participating TO's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the CAISO Controlled Grid to accommodate the interconnection of the Small Generating Facility with the CAISO Controlled Grid. Network Upgrades do not include Distribution Upgrades.

Operational Control – The rights of the CAISO under a Transmission Control Agreement and the CAISO Tariff to direct the parties to the Transmission Control Agreement how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting applicable reliability criteria.

<u>Operating Requirements</u> – Any operating and technical requirements that may be applicable due to the CAISO, Western Electricity Coordinating Council, Balancing Authority Area, or the Participating TO's requirements, including those set forth in this Agreement.

<u>Option (A) Interconnection Customer – An Interconnection Customer that elects to interconnect pursuant to Option (A) as set forth in Section 7.2 of the GIDAP.</u>

<u>Option (B) Interconnection Customer – An Interconnection Customer that elects to interconnect pursuant to Option (B) as set forth in Section 7.2 of the GIDAP.</u>

<u>Party or Parties – The Participating TO, CAISO, Interconnection Customer or the applicable combination of the above.</u>

Phased Generating Facility – A Generating Facility that is structured to be completed and to achieve Commercial Operation in two or more successive sequences that are specified in this SGIA, such that each sequence comprises a portion of the total megawatt generation capacity of the entire Generating Facility.

<u>Point of Interconnection – The point where the Interconnection Facilities connect with the Participating TO's Transmission System.</u>

Reasonable Efforts – With respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Reliability Network Upgrades (RNU) – The transmission facilities at or beyond the Point of Interconnection identified in the Interconnection Studies as necessary to interconnect one or more Generating Facility(ies) safely and reliably to the CAISO Controlled Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or system operating limits. Reliability Network Upgrades shall only be deemed necessary for system operating limits, occurring under any system condition, which such system operating limits cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Generating Facility's interconnection may have on a path's WECC rating.

<u>Small Generating Facility – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.</u>

TP Deliverability – The capability, measured in MW, of the CAISO Controlled Grid as modified by transmission upgrades and additions identified in the annual Transmission Plan to support the interconnection with Full Capacity Deliverability Status or Partial Capacity Deliverability Status of additional Generating Facilities in a specified geographic or electrical area of the CAISO Controlled Grid.

Transmission Control Agreement – CAISO FERC Electric Tariff No. 7.

<u>Transmission System – The facilities owned and operated by the Participating TO and that have been placed under the CAISO's Operational Control, which facilities form part of the CAISO Controlled Grid.</u>

<u>Upgrades</u> – The required additions and modifications to the Participating TO's Transmission System and Distribution System at or beyond the Point of Interconnection. <u>Upgrades may be Network Upgrades or Distribution Upgrades</u>. <u>Upgrades do not include Interconnection Facilities</u>.

<u>Description and Costs of the Small Generating Facility,</u> Interconnection Facilities, and Metering Equipment

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Participating TO. The Participating TO will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

Attachment 4 Milestones

In-Service Date:	
Critical milestones and responsibility as agree	ed to by the Parties:
Milestone/Date	Responsible Party
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
Agreed to by:	
For the CAISO	Date
For the Participating TO	Date
For the Interconnection Customer	Date

Additional Operating Requirements for the CAISO Controlled Grid and Affected Systems Needed to Support

the Interconnection Customer's Needs

The Participating TO and the CAISO shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the CAISO Controlled Grid.

Participating TO's Description of its Upgrades and Best Estimate of Upgrade Costs

The Participating TO shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Participating TO shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

Interconnection Requirements for an Asynchronous Generating Facility

Attachment 7 sets forth requirements and provisions specific to all Asynchronous Generating Facilities.

All other requirements of this Agreement continue to apply to all Asynchronous Generating Facility interconnections.

A. Technical Standards Applicable to Asynchronous Generating Facilities

i. Low Voltage Ride-Through (LVRT) Capability

A Asynchronous Generating Facility shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the requirements below.

- 1. An Asynchronous Generating Facility shall remain online for the voltage disturbance caused by any fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, having a duration equal to the lesser of the normal three-phase fault clearing time (4-9 cycles) or one-hundred fifty (150) milliseconds, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage. Clearing time shall be based on the maximum normal clearing time associated with any three-phase fault location that reduces the voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 2. An Asynchronous Generating Facility shall remain online for any voltage disturbance caused by a single-phase fault on the transmission grid, or within the Asynchronous Generating Facility between the Point of Interconnection and the high voltage terminals of the Asynchronous Generating Facility's step up transformer, with delayed clearing, plus any subsequent post-fault voltage recovery to the final steady-state post-fault voltage. Clearing time shall be based on the maximum backup clearing time associated with a single point of failure (protection or breaker failure) for any single-phase fault location that reduces any phase-to-ground or phase-to-phase voltage at the Asynchronous Generating Facility's Point of Interconnection to 0.2 per-unit of nominal voltage or less, independent of any fault current contribution from the Asynchronous Generating Facility.
- 3. Remaining on-line shall be defined as continuous connection between the Point of Interconnection and the Asynchronous Generating Facility's units, without any mechanical isolation. Asynchronous Generating Facilities may cease to inject current into the transmission grid during a fault.
- 4. The Asynchronous Generating Facility is not required to remain on line during multi-phased faults exceeding the duration described in Section A.i.1 of this Appendix H or single-phase faults exceeding the duration described in Section A.i.2 of this Appendix H.
- 5. The requirements of this Section A.i. of this Appendix H do not apply to faults that occur between the Asynchronous Generating Facility's terminals and the high side of the step-up transformer to the high-voltage transmission system.
- 6. Asynchronous Generating Facilities may be tripped after the fault period if this action is intended as part of a special protection system.
- 7. Asynchronous Generating Facilities may meet the of this Section A of this Appendix H through the performance of the generating units or by installing additional equipment within

- the Asynchronous Generating Facility or by a combination of generating unit performance and additional equipment.
- 8. The provisions of this Section A.i of this Appendix H apply only if the voltage at the Point of Interconnection has remained within the range of 0.9 and 1.10 per-unit of nominal voltage for the preceding two seconds, excluding any sub-cycle transient deviations.

ii. Frequency Disturbance Ride-Through Capacity

An Asynchronous Generating Facility shall comply with the off nominal frequency requirements set forth in the WECC Under Frequency Load Shedding Relay Application Guide or successor requirements as they may be amended from time to time.

iii. Power Factor Design and Operating Requirements (Reactive Power)

An Asynchronous Generating Facility shall operate within a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this SGIA in order to maintain a specified voltage schedule, if the Phase II Interconnection Study shows that such a requirement is necessary to ensure safety or reliability. The power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two, if agreed to by the Participating TO and CAISO. The Interconnection Customer shall not disable power factor equipment while the Asynchronous Generating Facility is in operation.

Asynchronous Generating Facilities shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the Phase II Interconnection Study shows this to be required for system safety or reliability.

iv. Supervisory Control and Data Acquisition (SCADA) Capability

An Asynchronous Generating Facility shall provide SCADA capability to transmit data and receive instructions from the Participating TO and CAISO to protect system reliability. The Participating TO and CAISO and the Asynchronous Generating Facility Interconnection Customer shall determine what SCADA information is essential for the proposed Asynchronous Generating Facility, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability.

v. Power System Stabilizers (PSS)

Power system stabilizers are not required for Asynchronous Generating Facilities.

Attachment 8 [This Attachment is Intentionally Omitted] Version: 0.0.0

Attachment J – List of Key Dates in Stakeholder Process Generation Interconnection and Deliverability Allocation Procedures Amendment Filing

California Independent System Operator Corporation

May 25, 2012

Date	Event/Due Date
July 22, 2011	ISO issues paper entitled "Integration of Transmission
• • · · · · · · · · · · · · · · · · ·	Planning and Generation Interconnection Procedures
	(TPP-GIP Integration) – Straw Proposal"
July 28, 2011	ISO hosts stakeholder meeting that includes presentation
odiy 20, 2011	entitled "Integration of Transmission Planning and
	Generator Interconnection"
August 9, 2011	Due date for written stakeholder comments on paper
7 tagaot 0, 2011	issued on July 22
September 12, 2011	ISO issues paper entitled "Integration of Transmission
,	Planning and Generation Interconnection Procedures
	(TPP-GIP Integration) – Revised Straw Proposal"
September 19, 2011	ISO hosts stakeholder meeting that includes presentation
, ,	entitled "Integration of Transmission Planning and
	Generator Interconnection – Revised Straw Proposal"
September 29, 2011	Due date for written stakeholder comments on paper
,	issued on September 12
November 23, 2011	ISO issues paper entitled "Integration of Transmission
·	Planning and Generation Interconnection Procedures
	(TPP-GIP Integration) – Discussion Paper for 12/1/11
	Working Group"
December 1, 2011	ISO hosts meetings of stakeholder Work Groups 1
	through 5
January 12, 2012	ISO issues paper entitled "Integration of Transmission
	Planning and Generation Interconnection Procedures
	(TPP-GIP Integration) – Second Revised Straw Proposal"
January 19, 2012	ISO hosts stakeholder meeting that includes presentation
	entitled "Integration of Transmission Planning and
	Generation Interconnection Procedures (TPP-GIP
	Integration) – Second Revised Straw Proposal"
January 26, 2012	Due date for written stakeholder comments on paper
	issued on January 12
February 15, 2012	ISO issues paper entitled "Integration of Transmission
	Planning and Generation Interconnection Procedures
	(TPP-GIP Integration) – Draft Final Proposal"
February 22, 2012	ISO hosts stakeholder meeting that includes presentation
	entitled "Integration of Transmission Planning and
	Generation Interconnection Procedures (TPP-GIP
	Integration) – Draft Final Proposal" and discussion of
	paper issued on February 15
March 1, 2012	Due date for written stakeholder comments on paper
	issued on February 15
March 9, 2012	ISO issues paper entitled "Integration of Transmission
	Planning and Generation Interconnection Procedures

Date	Event/Due Date
	(TPP-GIP Integration) – Final Proposal"
March 16, 2012	ISO hosts stakeholder conference call that includes presentation entitled "Integration of Transmission Planning and Generation Interconnection Procedures (TPP-GIP Integration) – Final Proposal" and discussion of paper issued on March 9
March 22, 2012	ISO issues draft tariff language to implement integration of transmission planning and generation interconnection procedures
March 29, 2012	Due date for written stakeholder comments on draft tariff language issued on March 22
April 4, 2012	ISO hosts stakeholder conference call that includes discussion of draft tariff language issued on March 22
April 19, 2012	ISO issues revised draft tariff language to implement integration of transmission planning and generation interconnection procedures
April 26, 2012	Due date for written stakeholder comments on draft tariff language issued on April 19



California Independent System Operator Corporation

Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market and Infrastructure Development

Date: March 16, 2012

Re: Decision on Integration of Transmission Planning Process and Generator

Interconnection Procedures

This memorandum requires Board action.

EXECUTIVE SUMMARY

The proposal described in this memorandum addresses key aspects of new generator interconnection and transmission planning that have become problematic due to the massive volume of new generator interconnection requests submitted to the California Independent System Operator Corporation in recent years in response to California's renewables portfolio standard. The problematic elements of the current generator interconnection and transmission planning process that are addressed by this proposal include:

- Today there is no single process for identifying and approving ratepayer-funded transmission expansion in a holistic manner. The transmission planning process and the generator interconnection procedures operate in parallel with very limited coordination between them.
- The current tariff provisions on generator interconnection require ratepayers to fully reimburse an interconnection customer for costs of network upgrades after the generating facility achieves commercial operation, irrespective of the customer's choice of interconnection point on the ISO grid and the cost impacts of that choice. Other ISOs and RTOs have provisions requiring interconnection customers to pay for a portion of their interconnection-related upgrade costs.
- The massive volume of current generator interconnection requests causes the ISO's interconnection studies to produce results that are unrealistic at best and too often create significant barriers to project financing. The study process is designed to identify upgrades needed for later requests based on the assumption that prior requests will culminate in commercially operating generating facilities. Yet in the current renewables portfolio standard context that assumption is not

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valid; because the volume of requests is roughly four times the amount of new generation needed, three out of four requests will probably fail to materialize.

This proposal addresses these challenges by:

- integrating the transmission planning and interconnection processes so that decisions to approve ratepayer-funded new transmission are made under the comprehensive transmission planning process, and
- (2) establishing rules and procedures whereby new generation projects that utilize transmission approved under the planning process to meet their interconnection needs will have their needed upgrades paid for by ratepayers, while projects whose needs are above and beyond the transmission capacity created through the planning process will be required to pay for their upgrades without ratepayer reimbursement.

In addressing these two fundamental objectives, the proposal also:

- revises the interconnection process timeline to better align with transmission planning,
- revises the interconnection study methodologies to produce meaningful results even when queue volume is very large, and
- provides an objective method for awarding the limited transmission capacity to generation projects most likely to be successfully completed, for areas of the grid where the volume of interconnection requests exceeds the capacity of transmission developed through the planning process.

For the reasons summarized above and described in greater detail in the body of this memorandum, Management recommends that the Board approve the following motion:

Moved, that the ISO Board of Governors approves the proposal for integration of the transmission planning process and generator interconnection procedures, as described in the memorandum dated March 16, 2012; and

Moved, that the ISO Board of Governors authorizes Management to make all the necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.

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DISCUSSION AND ANALYSIS

A major problem with the currently limited coordination between transmission planning and generation interconnection, combined with the very large volume of the interconnection queue, is the uncertainty it creates for developers of generation projects regarding the cost of network upgrades that will require financial security postings, the length of time it will take to construct those upgrades, and whether the regulatory body responsible for issuing permits (mainly the California Public Utilities Commission) will ultimately approve or reject the needed upgrades. These uncertainties make it difficult for the generation developer to construct bids responding to load-serving entities requests for offers for renewable energy. This uncertainty also makes it challenging for the load-serving entities and CPUC to evaluate the "all-in" costs of those bids, which should reflect their associated transmission costs.

The ISO made significant progress regarding alignment with the CPUC's permitting decision process through the memorandum of understanding executed in May 2010, under which the CPUC now provides input on renewable resource development into the ISO's transmission planning process. This process informs the ISO's identification of transmission needed to support the state's renewable portfolio standard mandate. The 2010 MOU and other transmission planning process revisions did not directly address needed changes to the generator interconnection process, however, which up to now still retains a separate track for developing transmission outside of the planning process and the MOU.

In addition, the current tariff requirement to fully reimburse the interconnection customer for network upgrades leaves only very weak incentives (i.e., via the posting requirements) for developers to make efficient use of transmission capacity in selecting their interconnection locations. With the huge volume of generation projects in the queue, it is now more important than ever for the ISO to implement provisions to limit ratepayer exposure to network upgrade costs in a manner that brings the approval of such upgrades under a single holistic planning process and makes developers responsible to pay, without reimbursement, for network upgrades that exceed the capacity approved through the transmission planning process. Such provisions have FERC-approved analogs in the tariffs of the other ISOs and RTOs.

This proposal includes modifications to the interconnection study methods to ensure that the studies produce realistic, meaningful results even when the size of the queue is extremely large. This aspect of the proposal is achieved by making use of the renewable resource development portfolios that are created by the CPUC, with input from the California Energy Commission and the municipal authorities within the ISO

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Even though the tariff requires ratepayer reimbursement of the costs of network upgrades after a generation project achieves commercial operation, the developer must still post financial security for 100 percent of the expected costs of the upgrades at least 90 days before construction of the upgrades begins, and then receive reimbursement over a five-year period that begins when the generation project starts commercial operation.

area, for input into the transmission planning process. The proposal also requires each generation developer to inform the ISO whether the project requires its interconnection needs to be met through ratepayer funded transmission, or can self-fund its needed upgrades without ratepayer reimbursement. The interconnection study then identifies the needs for incremental upgrades, beyond the capacity provided under the planning process, only for those projects willing to self-fund the upgrades. By also providing effective incentives for project developers to reveal their true willingness in this step of the process, the proposal enables the studies to identify realistic upgrade needs.

Finally, although this proposal is intended to apply prospectively to new generation projects entering the gueue in cluster 5 (March 2012) or later, the proposal also provides for a smooth transition from the existing queue (serial projects through cluster 4) to the new paradigm. Throughout this initiative many stakeholders have raised the concern that the volume of existing queue projects is so great that it will: (i) fully utilize all of the ratepayer-funded transmission capacity and make it impossible for any new queue entrants to benefit from this capacity, and (ii) trigger ISO approval of excessive transmission upgrades at ratepayer expense. To address this concern, the proposal includes an annual evaluation by the ISO of the status of all existing queue generation projects before starting the process to allocate transmission capacity to projects in the new cluster. The ISO will then reserve transmission capacity for existing queue projects that have bilateral contracts in good standing with load-serving entities and are meeting all the milestones in their interconnection agreements, and will allocate to projects in the new cluster only the amount of ratepayer-funded transmission that remains. In this way the proposal enables the ISO to model existing queue projects realistically and thereby balance the concerns (i) and (ii) above.

POSITIONS OF THE PARTIES

The stakeholder process for this initiative began as an element of the generator interconnection procedures, part 2 initiative in the spring of 2011. In June, ISO Management decided that a separate initiative was required, and since that time the ISO team has released three successive straw proposals and a draft final proposal. Stakeholder meetings were held following each proposal release. In addition the team held a stakeholder working group meeting in December to allow small-group discussions of key issues in the design of the proposal. In response to the last round of stakeholder written comments, submitted on March 1 following the February 15 draft final proposal, the ISO team made some additional modifications to the proposal and posted this as a final proposal on March 9. Finally, after releasing the March 9 final proposal, the ISO revised from \$40,000 to \$60,000 (per MW of generating capacity) the proposed upper limit on reimbursement to generators for reliability network upgrade costs. The revised \$60,000 value is the average per-MW cost of such upgrades based on a much larger and more complete historical data set than was used to obtain the previous value. On March 16 the ISO staff conducted a stakeholder conference call to discuss the March 9 final proposal and the increase in the reimbursement limit.

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The stakeholder positions summarized below and detailed in the attached matrix are drawn primarily from the March 1 comments, but also capture some of the verbal responses stakeholders offered in the March 16 conference call. The matrix also indicates where Management modified the proposal in response to comments received.

Overall, stakeholders are very supportive of the objectives of this initiative, and, after the lengthy series of proposals, meetings and discussions, most recognize that the proposal provides a workable process for new generator interconnections, meaningful integration with the transmission planning process, and a fair and reasonable balance among the different parties' interests. Of the 18 March 1 comment submissions, 16 parties support the proposal with some qualifications or requested changes, and two parties oppose the proposal. In addition, the ISO's Market Surveillance Committee recommends that the Board approve this proposal; their formal opinion is attached to this memorandum.

The fact that the supporters of the proposal also identify requested changes should not be a surprise, as the transmission planning-generator interconnection integration proposal is complex and reflects a carefully-crafted balance of multiple objectives and diverse stakeholder concerns, encompassing public policy, technical engineering, economic and project finance considerations. The requested changes cover a wide range of the details of the proposal, but there were several common themes that the ISO team either addressed through modifications described in the March 9 final proposal and the revised reliability network upgrade cost reimbursement limit, or determined should not be changed because the previous proposal already reflected the best balance between competing objectives and interests.

The two parties that oppose the proposal are a developer of generation projects (Wellhead) and an association of renewable generation developers (CalWEA). These parties both raise a number of concerns about specific details of the proposal, but their overarching concern is that the proposal will impose too much cost on developers of generation projects and will excessively limit the availability of ratepayer-funded transmission capacity to meet the interconnection needs of their projects. We note that eight of the 10 parties from the generation and transmission development community that submitted comments on March 1 support the proposal with qualifications.

One lingering concern expressed by some parties is the need for better alignment with renewable procurement activities conducted by the CPUC-jurisdictional load-serving entities. CPUC staff have been fully engaged in the present stakeholder initiative, and are continuing to work closely with the ISO team to clarify the alignment between their procurement activities and the ISO's transmission planning and generator interconnection procedures.

The attached stakeholder comments matrix provides additional details on the positions expressed by the participants in this initiative, as well as Management responses to the concerns they have raised.

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CONCLUSION

It is important for the Board to act on this proposal expeditiously. New requests for interconnection are being submitted this month for queue cluster 5, and Management believes it is important that these new requests be processed under the new transmission planning process and generator interconnection procedures integration provisions, rather than allow the existing rules to remain in effect for another interconnection cycle. Although the stakeholders all have identified specific areas where they would like to see improvements to the proposal, the proposal reflects nearly a year of hard work by all parties involved and a careful balance of objectives and stakeholder interests, and there is broad support for moving forward and approving the proposal.

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Attachment A

Stakeholder Process: TPP-GIP Integration

Summary of Submitted Comments

Stakeholders submitted four rounds of written comments to the ISO on the following dates:

- Round One (comments on Straw Proposal), 8/9/2011
- Round Two (comments on Revised Straw Proposal), 9/29/2011
- Round Three (comments on Second Revised Straw Proposal), 1/31/2012
- Round Four (comments on Draft Final Proposal), 3/1/2012

Stakeholder comments are posted at:

http://www.caiso.com/informed/Pages/StakeholderProcesses/TransmissionPlanning GeneratorInterconnectionIntegration.aspx

Other stakeholder efforts include:

- White Papers Issued
 - o 7/22/2011 Straw Proposal
 - o 9/12/2011 Revised Straw Proposal
 - o 11/23/2011 Discussion Paper (for 12/1/2011 Working Group Meeting)
 - o 1/12/2012 Second Revised Straw Proposal
 - o 2/15/2012 Draft Final Proposal
 - o 3/9/2012 Final Proposal
- In-Person Meetings
 - 0 7/28/2011
 - 0 9/19/2011
 - 12/1/2011 (Working Group Meeting)
 - 0 1/19/2012
 - 0 2/22/2012
- Conference Calls
 - 0 3/16/2012

Management Proposal	PTOs and LSEs	Municipals	Resource and Transmission Developers	Others	Management Response
Overall proposal: Integrate the transmission planning process ("TPP") and the generator interconnection procedures ("GIP") in a manner which achieves the initiative objectives.	PG&E, SCE, SDG&E – Support with qualification	CMUA, Six Cities, BAMx/CCSF – Support with qualification.	Apex, IEP, LS Power, First Solar, LSA, Clean Line, 8minute, Sempra – Support with qualification. CalWEA and Wellhead Electric – Oppose	CPUC staff – Strongly support with qualification CEERT – Support with qualification	Management appreciates the broad support and constructive participation it has received from stakeholders in this initiative, and has attempted to address issues qualifying this support as discussed further in this matrix. Fundamentally, this initiative shifts ISO interconnection policy from a paradigm where ratepayers fully reimburse generation projects for interconnection network upgrade costs, to a paradigm where some projects will be relieved of some or all upgrade costs while others will be required to pay their way or drop out of the queue. The challenge that Management's proposal addresses is to provide a process that is fair and workable, and tries to limit ratepayer exposure to excessive costs while enabling viable generation projects to succeed. Thus a tension among competing objectives characterizes the more significant qualifications stakeholders have voiced regarding their support.
ISO will apply the new process to GIP cluster 5 (which starts this year) and beyond, but not to the existing queue.	Support	Support; however, Six Cities – Apply the new process to generators in existing queue that have not yet signed Generator Interconnection Agreements (GIA). BAMx/CCSF, CMUA – Apply the new framework to all past GIAs that are now inactive and existing	Support	Support	Management recognizes the concerns regarding the existing queue, but believes that application of the new process to projects in the existing queue would face substantial risk in the FERC approval process, due to the fact that these projects entered the queue and have made expenditures and commitments under the expectation that existing tariff rules would apply. The final TPP-GIP Integration proposal has provisions to mitigate possible adverse impacts of the large existing queue on cluster 5 and beyond, and in addition the ISO has other initiatives in progress to address existing queue issues.

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Management Proposal	PTOs and LSEs	Municipals	Resource and Transmission Developers	Others	Management Response
		queue projects without signed GIAs. GIAs for existing queue projects should include stringent milestones to demonstrate progress toward commercial operation.			
Minimize ratepayer risk of having to pay for excessive reliability network upgrades and local delivery network upgrades	Support; however, treat all energy only projects the same on reliability network upgrade cost reimbursement	Support; however: Six Cities, CMUA – Limit reliability network upgrade cost reimbursement based on assessment of benefits to the grid BAMx, CCSF – Limit reliability network upgrade cost reimbursement to a capped amount	All reliability network upgrade cost costs should be reimbursed by ratepayers; the ISO's proposed limit of \$40,000 per MW on reimbursement for reliability network upgrades is much too low.	CPUC staff – Support; however treat all energy only projects the same on reliability network upgrade cost reimbursement	In response to stakeholder comments, Management proposed to limit cash repayment of reliability network upgrade costs to \$40,000 per MW of installed generating capacity, and to drop the previous proposal to treat different groups of projects differently on this issue. Further, after calculating the average per-MW cost of reliability network upgrades using a larger and more inclusive historical data set, Management proposed to increase this limit to \$60,000 per MW. Trying to tie reliability network upgrade cost reimbursement to estimated grid benefits would be extremely difficult analytically and the results would be subject to challenge. Management also proposes to use local delivery network upgrade costs as a tie-breaker for instances where the available amount of transmission plan deliverability can accommodate only one of two or more projects that score equally on the ranking criteria.
Before allocating transmission plan deliverability to each new cluster, the ISO will first reserve sufficient transmission plan	SCE – Should not completely eliminate some amount of deliverability for viable projects in cluster 5	BAMx/CCSF – Limit the possibility that deliverability allocation to cluster 5 and beyond could drive a need for further transmission	General concern expressed that too much deliverability may be reserved for these existing commitments	CPUC staff – concerned that excessive encumbrance will limit ability to accommodate new generation. Efforts should be made to	This step of the process is the perfect example of the tension between limiting the risk of ratepayer exposure to excessive transmission investment, while enabling viable generation projects to move forward. Reserving too much transmission plan deliverability for prior commitments may severely limit the amount

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Management	PTOs and LSEs	Municipals	Resource and Transmission	Others	Management Response
deliverability for projects in the existing queue, projects in later clusters that were previously allocated deliverability, resource adequacy import capacity that was expanded in the TPP, and distributed generation.		expansion.	Developers	identify a portion of the earlier-queued projects that are unlikely to come on-line and make that deliverability available to the new cluster.	available for each new queue cluster. As the same time, under-reserving transmission plan deliverability for these prior commitments and allocating too much to new projects, could require the ISO to approve costly transmission to ensure that the transmission system can support the committed deliverability. Because the volume of projects still active in the existing queue is so large, Management believes that it would be imprudently risky to under-estimate the amount of deliverability these projects will eventually utilize. At the same time, it is important to recognize that the first time the new allocation procedure will be perform — which will be for cluster 5 — will be almost two years from now, in the first quarter of 2014. By that time, there should be far less uncertainty about which areas of the grid and which projects will develop, and the ISO will be able to assess with reasonable confidence the amount of deliverability that can be allocated to new cluster 5 projects.
For allocating transmission plan deliverability to projects in a new GIP cluster (e.g., cluster 5), the ISO will first qualify projects based on threshold eligibility criteria. If the amount of eligible projects exceeds available transmission plan deliverability, the ISO will apply an objective scoring mechanism and	PG&E, SCE – Use of LSE short-lists as one of the minimum threshold eligibility criteria will require that adequate confidentiality protections are put into place.	BAMx/CCSF – The minimum threshold criteria are not stringent enough and would result in having excessive numbers of projects satisfying the criteria and remaining in the queue.	First Solar, Wellhead Being on an LSE short-list is too low a threshold; an approved PPA is preferred. CalWEA, Wellhead suggest that the ISO should limit itself to the interconnection process and should not insert itself into the procurement process through the proposed approach for the allocation of deliverability.	CPUC staff – Being on an LSE short-list is too low a threshold. Instead, transmission plan deliverability should first be allocated to projects with approved PPAs in good standing and then to projects with executed PPAs in good standing. In case of "ties" the project with earlier commercial operation date should get an allocation. Remaining transmission plan deliverability should be	Management believes that the proposed criteria and scoring methodology are appropriate for a number of reasons. First, although having a PPA is an important step for a project developer, Management is aware that LSEs are executing more PPAs than they actually need, with the expectation that a significant amount of these PPAs will fail. The ISO proposal therefore includes permitting milestones in addition to PPA milestones, because experience has shown that a project's progress in the permitting process can be a good indicator of viability as a PPA. Second, although being short-listed is a low minimum threshold, the process will allocate deliverability to projects based on this minimal threshold only when there is either ample deliverability available, or all projects competing

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Management Proposal	PTOs and LSEs	Municipals	Resource and Transmission Developers	Others	Management Response
allocate transmission plan deliverability to the highest scoring projects. The criteria used for this process reflect project development milestones, such as being short- listed or having a power purchase agreement (PPA) with a load serving entity (LSE), and having made progress in obtaining permits for construction.				allocated to projects on an LSE short-list but it should be provisional to be withdrawn if the project has not progressed to at least an executed PPA by the next annual cycle.	for the deliverability have progressed no further than the minimal threshold. In today's highly over-saturated environment this is very unlikely. Nevertheless, Management has modified the proposal so that a project that is allocated TP deliverability based only on being short-listed will be required to have a PPA by the start of the next allocation cycle (less than a year later) or will lose the allocation. Third, although developers did not raise this point in their final round of comments, in earlier comments they indicated that requiring a PPA as a minimum threshold requirement would eliminate many potentially viable projects due to the timing of LSE solicitation processes, which can result in short-listing in time for the allocation process but may not lead to PPAs in that time.
Option (A) projects (i.e., those that require transmission plan deliverability) not receiving an allocation of transmission plan deliverability are allowed to "park" for a year for a second chance at obtaining transmission plan deliverability in the next cycle.	SCE – Don't extend "parking" beyond the one year.	BAMx/CCSF – No further relaxation of "parking" limits.	Apex – Allow "parking" for more than one year. IEP – Projects should have option of electing energy only or "parked" status for the portion of project capacity not short- listed or without a PPA. First Solar – Allow parking rather than sign GIA if an option (A) project only meets short-list minimum eligibility criteria. Allow a project to pay	CPUC staff – Agree with limitation of "parking" to one year.	Management has given consideration to extending the ability to "park" beyond one year but proposes to maintain the one year limit on "parking." Any longer extension would render GIP phase 2 study results for these projects obsolete, while refreshing the results every year would maintain a potentially very high volume of projects in the study process, thus exacerbating the current problems caused by excessive queue size. Management considers the ability to "park" for one year as striking the right balance between allowing potentially viable projects a second chance in the allocation process, while preventing less viable projects from lingering in the queue and complicating the study process. Management has modified the proposal in response to stakeholder requests to allow "partial" parking. That is, if a project obtains

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Management Proposal	PTOs and LSEs	Municipals	Resource and Transmission Developers	Others	Management Response
			annual study fees to stay "parked" for more than one year.		deliverability for a portion of its total capacity in the first allocation cycle, it may "park" the rest of its capacity until the next allocation cycle to try to obtain the full amount of deliverability it originally requested.

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No	Due Date	2012/2013 Activity	Phase
1	December 15, 2011	The ISO sends a letter to neighboring balancing authorities, sub- regional, regional planning groups requesting planning data and related information to be considered in the development of the Study Plan and the ISO issues a market notice announcing a thirty-day comment period requesting demand response assumptions and generation or other non-transmission alternatives to be considered in the Unified Planning Assumptions.	I
2	January 16, 2012	PTO's, neighboring balancing authorities, regional/sub-regional planning groups and stakeholders provide ISO the information requested in the December 15 letter and market notice (see no.1 above)	I
3	February 21, 2012	The ISO develops the draft Study Plan and posts it on its website	I
4	February 28, 2012	The ISO hosts public stakeholder meeting #1 to discuss the contents in the Study Plan with stakeholders	I
5	March 13, 2012	Comment period for stakeholders to submit comments on the public stakeholder meeting #1 material and for interested parties to submit Economic Planning Study Requests to the ISO	I
6	Last week in March	The ISO specifies a provisional list of high priority economic planning studies, finalizes the Study Plan and posts it on the public website	I
7	Q2	ISO Initiates the development of the Conceptual Statewide Plan	1
11	March 26, 2012	Post CPUC portfolios (one week prior to stakeholder meeting)	II
12	April 2, 2012	The ISO hosts stakeholder meeting for the CPUC to present the portfolios	II
13	April 16, 2012	Comment period for stakeholders to submit comments on the public stakeholder meeting discussing portfolios	II
14	May 15, 2012	The ISO finalizes the portfolios and post on public website	II
15	July/August	ISO posts the Conceptual Statewide Plan on its website and issues a market notice announcing the posting	II
16	August/September	Stakeholders have a 20 day period to submit comments on the Conceptual Statewide Plan in the next calendar month after posting conceptual statewide plan (i.e. August or September)	II
17	August 15, 2012	Request Window opens	II
18	August 15, 2012	The ISO posts preliminary reliability study results and mitigation solutions	II
19	September 14, 2012	PTO's submit reliability projects to the ISO	II
20	September 26 – 27, 2012	The ISO hosts public stakeholder meeting #2 to discuss the study results, PTO's reliability projects, and the Conceptual Statewide Plan with stakeholders	II
21	September 27 – October 11, 2012	Comment period for stakeholders to submit comments on the public stakeholder meeting #2 material	II
22	October 15, 2012	Request Window closes	П
23	End of October 2012	ISO post final reliability study results and mitigation solutions	II
24	December 4, 2012	The ISO posts an update on the preliminary policy driven & economic planning study results on its website	II

2012/2013 Transmission Planning Process

No	Due Date	2012/2013 Activity	Phase
25	December 11 - 12, 2012	The ISO hosts public stakeholder meeting #3 to provide the updates on the preliminary policy driven & economic planning study results	II
26	December 12 – 21, 2012	Comment period for stakeholders to submit comments on the public stakeholder meeting #3 material	II
27	January 2013	The ISO posts the draft comprehensive Transmission Plan on the public website	II
28	February 2013	The ISO hosts public stakeholder meeting #4 to discuss the transmission project approval recommendations, identified transmission elements, and the content of the comprehensive Transmission Plan	II
29	Three weeks following the public stakeholder meeting #4	Comment period for stakeholders to submit comments on the public stakeholder meeting #4 material	II
30	March 2013	The ISO finalizes the comprehensive Transmission Plan and presents it to the ISO Board of Governors for approval	II
31	End of March	ISO posts the Final Board-approved comprehensive Transmission Plan on its site	II
32	April 2, 2013 – June 1, 2013	If applicable, the ISO solicits proposals to finance, construct, and own economically driven and category 1 policy driven elements identified in the comprehensive Transmission Plan (No. 24 above)	III
33	No later than June 7, 2013	The ISO posts the list of interested project sponsors received	III
34	No later than June 21, 2013	The ISO posts the list of qualified project sponsors who met the established criteria	III
35	July 15, 2013	Deadline for joint project sponsor notifications	III
36	No later than September 15, 2013	The ISO posts the list of approved project sponsors	III
37	No later than October 15, 2013	The ISO releases a detailed report on the approved project sponsors selected	III