

September 30, 2013

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. ER13- \_\_\_\_ -000**

**Tariff Amendment to Implement Interconnection Process  
Enhancements and Clarifications**

Dear Secretary Bose:

The California Independent System Operator Corporation (“ISO”) submits this tariff amendment which proposes modifications to improve the ability of the ISO to administer the generator interconnection queue and to address miscellaneous non-substantive tariff issues.<sup>1</sup> The proposed modifications to improve the ISO’s generator interconnection process come from the Interconnection Process Enhancements (“IPE”) stakeholder initiative. The miscellaneous tariff changes include clarifications of existing generator interconnection tariff provisions and corrections of typographical and other inadvertent errors in those provisions discovered through the ISO’s own internal review as well as stakeholder input.

With respect to the queue management-related modifications, the ISO proposes to revise its tariff as follows:

- requiring interconnection customers to pay for the actual costs incurred by the ISO and participating transmission owners for evaluating their requests for modifications to their projects;

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<sup>1</sup> 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, and references to specific sections, articles, and appendices are references to sections, articles, and appendices in the ISO tariff unless otherwise indicated.

- extending to small generator projects the existing tariff provisions for large generators regarding commercial operation date extensions and other modifications to their projects;
- applying to small generator projects the existing tariff provisions for large generators regarding the maximum length of time a project is allowed to remain in the interconnection queue;
- clarifying that the participating transmission owner tenders the draft generator interconnection agreement (“GIA”) to the interconnection customer;
- changing the triggering event for tendering the draft GIA from the provision of the Phase II interconnection study report to the study results meeting, unless agreed otherwise by the parties; and
- reducing the time for the ISO to provide a final GIA to interconnection customers once negotiation of the GIA is completed.

With respect to the miscellaneous revisions proposed in this filing, these modifications are not intended to materially change established policies or the rights and obligations of the ISO or its market participants. Instead, these revisions are intended to add additional detail to clarify the meaning of tariff provisions, ensure consistency throughout the tariff as well as between the tariff and applicable business practices, and correct typographical and other inadvertent errors.<sup>2</sup>

The ISO requests that the Commission accept the tariff revisions contained in this filing to be effective as of December 3, 2013, 64 days from the date of this filing to ensure that the changes apply to cluster 5 projects which are scheduled to receive their phase II study results on December 3, 2013.

## **I. Background**

### **A. Development of the Queue Management Revisions in the IPE Initiative**

Identifying ways to better administer its generation interconnection queue has become increasingly important to the ISO and its customers in light of the significant increase in the number of new generation projects stimulated by

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<sup>2</sup> Because of the number of revisions in this category, and their non-material nature, these revisions are delineated and explained in a table included as Attachment A to this transmittal letter.

California's ambitious renewable portfolio standard. The large number of projects and the different project configurations, along with the need for project modification, presents significant administrative challenges and costs for the ISO.<sup>3</sup> The ISO has addressed these challenges in part by dedicating additional resources to administering its interconnection queue. The ISO has also identified six modifications which have been approved by the ISO Governing Board to its interconnection procedures and agreements that would help to improve the efficiency of the interconnection process and to help ensure that generation projects move through the interconnection process more efficiently.

These six queue management proposals represent the first of three tariff amendments the ISO anticipates filing pursuant to its 2013 IPE initiative, which was launched in April 2013 to improve various aspects of the generator interconnection process.<sup>4</sup> The ISO is committed to continuous improvement in this area to reflect changes in the industry and to better accommodate the needs of interconnection customers.<sup>5</sup> The IPE initiative is the most recent in a series of stakeholder processes<sup>6</sup> that the ISO has conducted over the past several years in order to meet this commitment.<sup>7</sup>

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<sup>3</sup> As of the date of this filing, there are approximately 272 projects in the interconnection queue. See <http://www.caiso.com/planning/Pages/GeneratorInterconnection/Default.aspx> (ISO website page listing projects in the queue).

<sup>4</sup> This is an annual process that the ISO intends to continue in the foreseeable future to resolve issues identified by market participants. For 2013, initially 49 issues were identified by the ISO and market participants. Given this volume, the ISO committed to addressing 15 of the issues in 2013 and then determining the next highest priority issues to be addressed in 2014, and so on.

<sup>5</sup> The generator interconnection process and related provisions are set forth primarily in section 25 of the ISO tariff and the following interconnection procedures and *pro forma* GIAs contained in appendices to the tariff: the small generator interconnection procedures ("SGIP") for projects in the serial study process (appendix S); small generator interconnection agreement ("SGIA") for interconnection requests processed under appendix S (appendix T); large generator interconnection procedures ("LGIP") for projects in the serial study process (appendix U); large generator interconnection agreement ("LGIA") for interconnection requests processed under appendix U (appendix V); interconnection procedures in effect prior to July 1, 2005 (appendix W); generator interconnection procedures ("GIP") for projects in a queue cluster study process prior to cluster five (appendix Y); LGIA for interconnection requests processed under appendix Y in a queue cluster window (appendix Z); LGIA for interconnection requests processed under appendix Y in a serial study group that tendered or executed the LGIA on or after July 3, 2010 (appendix BB); LGIA for interconnection requests processed under appendix Y in a queue cluster window that tendered or executed the LGIA on or after July 3, 2010 (appendix CC); generator interconnection and deliverability allocation procedures ("GIDAP") for projects in a queue cluster study process in cluster five and subsequent clusters (appendix DD); LGIA for interconnection requests processed under appendix DD (appendix EE); and SGIA for interconnection requests processed under appendix DD (appendix FF). Unless otherwise specified or the context otherwise requires, a GIA can be either an LGIA or an SGIA.

<sup>6</sup> Materials regarding the IPE stakeholder process are available on the ISO website at

The ISO launched the IPE initiative by publishing a scoping proposal on April 8, 2013.<sup>8</sup> Instead of following its usual practice of beginning a stakeholder initiative with an issue paper, the ISO identified the development of this scoping proposal as a necessary first step in the IPE initiative. The scoping proposal had two purposes. First, it assembled a comprehensive list of potential topics in one place from a number of sources that included last year's generator interconnection stakeholder process, commitments made by ISO management to consider certain specific issues raised by stakeholders,<sup>9</sup> other topics suggested by stakeholders over the course of the last year, and issues identified by the ISO pursuant to an internal review aimed at improving the ISO's ability to administer the queue.

Second, the scoping proposal selected a set of potential topics from the comprehensive list of topics mentioned above for proposed inclusion in the scope of the IPE initiative. This was necessary because the comprehensive list of topics (nearly fifty total) represented a far larger set of topics than could be reasonably addressed within the scope of this initiative. To develop a set of topics representing a more reasonable workload to include in-scope, the ISO took into consideration the estimated level of effort and relative priority associated with each topic as well as its potential contribution to queue management efforts. This resulted in twelve topics that the ISO proposed in the April 8 scoping proposal for inclusion in-scope. Based on stakeholder feedback received following the release of the scoping proposal, the ISO expanded the scope of the IPE initiative by three topics and posted an issue paper on June 3, 2013 that address the resulting scope of fifteen topics.<sup>10</sup>

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<http://www.caiso.com/informed/Pages/StakeholderProcesses/InterconnectionProcessEnhancements.aspx>. A list of key dates in the stakeholder process is provided in attachment F to this filing.

<sup>7</sup> These include Generation Interconnection Process Reform held in 2008-09, Generation Interconnection Procedures Phase 1 held in 2010, Generation Interconnection Procedures Phase 2 held in 2011 and early 2012, and Generation Interconnection Procedures Phase 3 ("GIP 3") held in 2012. GIP 3 was started in early 2012 but was later deferred to allow the ISO and stakeholders to take part in a generator project downsizing initiative that culminated in Commission approval of a one-time project downsizing opportunity in December 2012. The ISO plans to continue this process in the future in order to address areas for potential improvement identified internally and through stakeholder review.

<sup>8</sup> The scoping proposal is available on the ISO website at <http://www.caiso.com/Documents/ScopingProposal-InterconnectionProcessEnhancements.pdf>.

<sup>9</sup> The two topics were (1) future generator project downsizing policy and (2) disconnection of completed phase(s) of a generation project for failure of the project to complete a subsequent phase.

<sup>10</sup> The issue paper is available on the ISO website at <http://www.caiso.com/Documents/IssuePaper-InterconnectionProcessEnhancements.pdf>. The remaining topics, which the ISO did not initially recommend to include in-scope, are described in

As explained in the scoping proposal, the ISO anticipated from the beginning that the pace of development and implementation of proposals for each topic may differ – *i.e.*, proposals for some topics may be developed rather quickly whereas more time may be needed to work with stakeholders and develop proposals for other topics. In this respect, the ISO identified, and stakeholders generally agreed, that the queue management topics presented herein could be developed, discussed and finalized on a faster track than the remainder of the IPE topics.<sup>11</sup> Therefore, in its first IPE issue paper, the ISO offered straw proposals for the queue management topics. For the remaining eight topics the ISO was not yet prepared to offer proposals in the issue paper and instead provided further analysis of the issues and suggested potential ideas and options for stakeholder consideration.

Following receipt of stakeholder comments on the issue paper, the ISO posted a draft final proposal for the queue management topics on July 2, 2013 that included proposed draft tariff modifications to implement the proposals on those topics,<sup>12</sup> and provided an opportunity for stakeholder comment on the draft final proposal.<sup>13</sup>

## **B. Integration of Clarification and Correction Revisions with Queue Management Topics**

Over the past few years, the ISO has undertaken multiple reviews of its tariff to assess the need to clarify existing tariff language and correct inadvertent errors. These reviews have resulted in three tariff filings, the most recent of which was filed with the Commission on April 12, 2013.<sup>14</sup> A number of additional

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section 4 of the scoping proposal.

<sup>11</sup> The ISO determined that the most efficient course was to present the topics in the IPE initiative for Board approval as they were finalized and not hold up their resolution until all fifteen topics were resolved, *i.e.*, take the draft final proposals on the various topics to the Board in several tranches. The ISO believes that stakeholders both support and appreciate this multiple-tranche approach since it will expedite resolution of the topics that can be resolved more quickly and will give due consideration to the topics that require more deliberation.

<sup>12</sup> The draft final proposal is provided in attachment D to this filing and is available on the ISO website at [http://www.caiso.com/Documents/DraftFinalProposal\\_Topics6-12\\_InterconnectionProcessEnhancements.pdf](http://www.caiso.com/Documents/DraftFinalProposal_Topics6-12_InterconnectionProcessEnhancements.pdf).

<sup>13</sup> The ISO initially presented seven queue management topics to stakeholders in this process. However, one of these topics, topic 12, was withdrawn from the proposal prior to presentation to the Board due to a concern raised by a market participant. The ISO will conduct further discussions with stakeholders on topic 12 with the goal to present it for Board approval and tariff implementation in conjunction with one of the other two batches of IPE initiative topics.

<sup>14</sup> *Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,262 (2009); *Cal. Indep. Sys. Operator*

clarification and correction items involving the generator interconnection provisions of the ISO's tariff were identified by the ISO and stakeholders either too late to be included in the April 12 filing, or subsequent to the April 12 filing. Moreover, a number of such items have been identified by the ISO in connection with both implementation of the new tariff provisions and its internal effort to improve its processes and practices relating to queue management. The ISO originally planned to file these additional clarifications and corrections as a separate tariff amendment this fall. However, because of the faster pace of development of the queue management topics in IPE, the desire to implement those improvements as soon as possible, and the fact that they all involve generator interconnection issues, the ISO determined that it would be most efficient to combine the queue management topics from the IPE initiative with the interconnection clarifications and corrections in one filing.

Consistent with this approach, the ISO issued a set of draft tariff provisions to implement the queue management topics, as well as the additional clarifications, updates, and corrections on July 15, 2013 and solicited stakeholder comments. The ISO and stakeholders took part in a conference call held on August 14, 2013 to discuss the tariff provisions. Based on subsequent stakeholder feedback, the ISO revised the draft tariff provisions and posted them for final review on September 24, 2013.

At its September 12, 2013 meeting, the ISO's Board authorized the ISO to file this tariff amendment, which includes tariff revisions to implement the queue management topics.<sup>15</sup> The rest of the IPE topics are being addressed in the ongoing IPE stakeholder process. To implement the balance of the fifteen topics, the ISO anticipates that it will seek approval in two future Board meetings and will file a second tariff amendment in early 2014 and a third tariff amendment late in the first quarter of 2014.

Stakeholders generally supported the ISO's proposals regarding the queue management topics, recognizing them as enhancements to the ISO's ability to administer the interconnection queue more efficiently. On some of the topics a subset of stakeholders expressed their support with specific qualifications. These qualifications and the ISO's responses are addressed in the discussion below on the proposed tariff revisions to implement topics 6-11.

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*Corp.*, 134 FERC ¶ 61,140 (2011); *Cal. Indep. Sys. Operator Corp.*, 143 FERC ¶ 61,228 (2013).

<sup>15</sup> Materials related to the Board's meeting are available on the ISO website at <http://www.caiso.com/informed/Pages/BoardCommittees/Default.aspx>. These materials include a Board memorandum, which is provided in attachment E to this filing and is available on the ISO website at <http://www.caiso.com/Documents/Decision-InterconnectionProcessEnhancementsQueueManagement-Memo-Sep2013.pdf>.

## **II. Proposed Tariff Revisions**

### **A. Requiring Interconnection Customers to Fund the Actual Costs of Evaluating Their Requests for Modifications (Topic 6)**

Consistent with the Commission's pro forma interconnection procedures and agreement, the ISO tariff provides interconnection customers with the opportunity to request modifications of their project during various stages of the interconnection process.<sup>16</sup> With the exception of certain modifications that are expressly permitted, interconnection customers submit proposed modifications to the ISO, and the ISO, in coordination with the applicable participating transmission owner(s), evaluates whether such modifications are "material" in nature,<sup>17</sup> which in turn determines whether the project can undertake the modification and retain its queue position, or whether the modification would require the customer to proceed with a new interconnection request for the modification.<sup>18</sup>

The ISO is proposing herein to make interconnection customers responsible for the actual costs incurred by the ISO and applicable participating transmission owner(s) of evaluating whether a modification requested by the interconnection customer related to its generation project is a material modification. Specifically, an interconnection customer making such a request will be required to provide a \$10,000 deposit that would be available to the ISO and the participating transmission owner to cover the actual costs of the evaluation. If the actual costs of the evaluation are greater than \$10,000, the ISO will invoice the customer for the additional amount. If the actual costs are less than the deposit, then the ISO will refund the balance of the deposit to the customer.<sup>19</sup>

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<sup>16</sup> See appendix T article 6.2; appendix U sections 4.4, 4.4.3 and 4.4.5; appendix Y sections 6.9.2.1 and 6.9.2.2; appendix Z article 5.19.1; appendix BB article 5.19.1; appendix CC articles 5.19.1 and 5.19.4; appendix EE article 5.19.1; appendix FF article 6.2.

<sup>17</sup> A material modification is a modification that has a material impact on the cost or timing of any interconnection request in the ISO's queue or any other valid interconnection request with a later queue priority date. Appendix A, definition of "material modification." This same definition is set forth in the tariff appendices on interconnection.

<sup>18</sup> See, e.g., appendix Y, section 6.9.2.2.

<sup>19</sup> The ISO proposes to make these topic 6 changes to section 1.3.4.2 of appendix S, section 4.4.6 of appendix U, section 6.9.2.3 of appendix Y, and section 6.7.2.3 of appendix DD. Topic 6 is addressed in the draft final proposal at pages 6-10 (section 4.1) and the Board memorandum at page 3.

Requiring the interconnection customer to be responsible for the actual cost of evaluating modification requests is just and reasonable. As with other studies, the ISO and participating transmission owner personnel must expend significant time and effort to evaluate each modification request to determine whether it would have a material cost or timing impact on other interconnection requests. It is appropriate for these costs to be borne by the interconnection customer that makes the request, rather than being accounted for as general costs of the ISO and the participating transmission owner, which in effect results in these costs being spread to all ISO and participating transmission owner ratepayers. The work performed by the ISO and participating transmission owner to evaluate a modification request consists of both a business and engineering assessment of the project and the impact of the requested modification on the cost and timing of other interconnection customers. This work is of a similar kind to that performed in connection with interconnection studies which, consistent with the Commission's pro forma interconnection procedures, are funded by the applicable interconnection customer in the same manner as the ISO is proposing to require in this amendment for modification evaluations. Namely, the customer must first make a deposit to act as a source of funds followed by an accounting at the completion of the study/modification evaluation to either refund the unused portion of the deposit to the interconnection customer or collect additional funds if the deposit is insufficient. As with interconnection studies, if a customer disagrees with the costs reflected in the final invoice, the customer would have the right to lodge a dispute as set forth in the ISO tariff or GIA, if one has been executed.

In addition, the interconnection customer's provision of funds earmarked for the modification evaluation will allow the ISO and the participating transmission owner to dedicate additional resources to this task and thereby expedite the evaluation process.<sup>20</sup>

The \$10,000 deposit amount for performing the evaluation is also just and reasonable because it is consistent with the deposit already required in the ISO's serial study procedures for conducting re-studies, including re-studies required to evaluate the impact of project modifications and any balance remaining will be returned to the customer. Under appendix U, if the interconnection customer, the applicable participating transmission owner, and the ISO agree upon a change to the planned interconnection that may improve the costs and benefits of the interconnection, the ISO will modify the point of interconnection or configuration

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<sup>20</sup> In the IPE stakeholder process the ISO initially proposed that, as an alternative to providing a separate deposit for the modification evaluation, the interconnection customer could elect to use existing study funds to the extent the ISO was still holding at least \$10,000 in study funds not otherwise encumbered. See draft final proposal at 9. However, as the ISO explained to stakeholders, it later determined that the accounting required to implement this alternative means of funding the modification evaluation would not be feasible.

in accordance with the change and proceed with any re-studies necessary to do so. In that event, the interconnection customer is required to provide a \$10,000 deposit for the re-study and to pay any actual costs of the re-study above the deposit amount.<sup>21</sup> The ISO now proposes to require the interconnection customer to provide a \$10,000 deposit to fund the similar work of performing a modification evaluation.<sup>22</sup>

This level of deposit will strike a reasonable balance between ensuring that interconnection customers that contemplate requesting modification evaluations have enough “skin in the game” to submit appropriately considered and well-developed requests, while at the same time not making the interconnection customers subject to a level of deposit so high as possibly to discourage them from submitting the requests.

The ISO is also proposing to include timing provisions similar to those that it adopted in its generator downsizing amendment to provide interconnection customers with greater certainty as to the modification evaluation process.<sup>23</sup> The ISO proposes that a modification evaluation will generally be concluded within 45 calendar days after the ISO receives the \$10,000 deposit, the interconnection customer’s written request for the evaluation, and the technical data required to make the evaluation. If an evaluation cannot be completed within 45 calendar days, the ISO will notify the interconnection customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The proposed revisions also require that any participating transmission owners that perform modification assessment work provide the ISO with invoices for such work no later than 75 calendar days after the completion of the assessment, and that the ISO issue an invoice to the interconnection customer no later than 30 days thereafter reconciling the actual costs with the deposit.

Finally, the ISO also proposes to clarify in the tariff that the interconnection customer *must* request the ISO to evaluate whether a proposed modification not expressly permitted under the tariff is a material modification.<sup>24</sup> Although the ISO

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<sup>21</sup> Appendix U sections 4.4, 6.4, 7.6, and 8.5. Under appendix U, a \$10,000 deposit is also required for an interconnection feasibility study (appendix U section 6.1), an optional interconnection study (appendix U section 10.1), or an amended interconnection study (appendix U section 12.2.4), and the interconnection customer is ultimately responsible for the actual costs of each of those types of studies.

<sup>22</sup> It should be noted that each of these deposits will be accounted for separately and invoiced once the individual modification assessment is completed.

<sup>23</sup> This same timeline also applies to re-studies performed under the existing provisions of appendix U. See appendix U sections 6.4, 7.6, and 8.5.

<sup>24</sup> The ISO proposes to make this topic 6 clarification in section 4.4.3 of appendix U, section

believes that the current tariff language is most appropriately read as already including this requirement, this clarification will make explicit that, for proposed modifications other than those the tariff already permits, a request for modification evaluation is required.

Stakeholders generally supported the ISO's proposal on topic 6. One stakeholder, Pacific Gas and Electric Company ("PG&E"), supported the proposal with the qualification that the ISO should confirm that the ISO will invoice interconnection customers through its accounting process for the costs of modification evaluations that exceed the deposit amounts. The ISO confirmed that it will perform this invoicing, as reflected in the tariff revisions.<sup>25</sup> In addition, the tariff revisions specify the process and timeline for the participating transmission owner to invoice the ISO for any assessment work, for the ISO to issue an invoice to the interconnection customer for work performed by the participating transmission owner and the ISO, and for the interconnection customer to pay the invoice if the deposit is insufficient.

Southern California Edison Company ("SCE"), supported the proposal with the qualification that the interconnection customer should be required to pay a fixed fee for a modification evaluation, based on a reasonable estimate of the evaluation's costs, rather than on its actual costs. In response, the ISO explained that it appreciated SCE's desire for a fixed fee but that the ISO does not have sufficient data at this time to support assessing a fixed fee for any particular amount. The ISO stated that it may be possible to develop a fixed fee structure in the future based on cost information derived from the accounting and invoicing of actual costs for modification evaluations.<sup>26</sup>

The Large-scale Solar Association ("LSA") supported the proposal with the qualification that the ISO should track the costs of modification evaluations and make its cost findings available to market participants. The ISO responded by committing to revise the applicable business practice manual to state that the ISO will publish an annual report that provides average costs for the different types and complexities of requested modification evaluations.<sup>27</sup> This commitment is reflected in the tariff revisions.

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6.9.2.2 of appendix Y, and section 6.7.2.2 of appendix DD. *See also* draft final proposal at 9 (discussing clarification).

<sup>25</sup> Attachment A to Board memorandum at 2.

<sup>26</sup> Board memorandum at 5; attachment A to Board memorandum at 2.

<sup>27</sup> Board memorandum at 3; attachment A to Board memorandum at 2.

**B. Extension to Small Generator Projects of Existing Tariff Provisions for Large Generators Regarding Proposed Project Modifications (Topic 7)**

The ISO proposes to revise the project modification process for small generator projects so that it parallels the modification evaluation process applicable to large generator projects.<sup>28</sup> The proposed tariff changes involve including in the serial small generator procedures (Appendix S) and small generator interconnection agreement (Appendix T) existing tariff provisions relating to project modifications for large projects as revised in this tariff amendment.<sup>29</sup> Extending these tariff provisions to small generator projects is just and reasonable because it will provide interconnection customers for small generator projects assurances that they have the same ability to request project modifications that large generator interconnection customers do, including modifications to a project's commercial operation date. In addition, there is no general difference between small generators and large generators in terms of their potential to impact the cost and timing of other interconnection requests. Therefore, it is appropriate that the process for evaluating modifications from both small and large generator projects be consistent.

Stakeholders generally supported this proposal. One stakeholder, Independent Energy Producers ("IEP"), stated that it supported the proposal with the qualification that the ISO should commit to ensuring that it will not allow small projects in the queue that are accessing the market pursuant to the renewable auction mechanism ("RAM") overseen by the California Public Utilities Commission ("CPUC"),<sup>30</sup> and that apply for extensions of their commercial operations dates, to receive an advantage for those extensions over small projects not in the RAM program. In response, the ISO explained that, while it appreciated IEP's concerns, the ISO is obligated to apply its tariff in a nondiscriminatory manner and will therefore not discriminate among small projects. As a result, no project will be advantaged (or disadvantaged) due to its participation in the RAM program.<sup>31</sup>

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<sup>28</sup> The ISO proposes to make these topic 7 changes to section 1.3.4.1 of appendix S, article 3.4.5 of appendix T, and article 3.4.5 of appendix FF. Topic 7 is addressed in the draft final proposal at pages 10-12 (section 4.2) and the Board memorandum at page 3.

<sup>29</sup> See tariff section 25.1.2, section 4.4.3 of appendix U, section 6.9.2.2 of appendix Y, and section 6.7.2.2 of appendix DD as revised in this filing.

<sup>30</sup> The RAM program requires that a generator project subject to the program achieve commercial operation within 30 months of regulatory approval of the project. Information regarding the RAM program is available on the CPUC's website at <http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/Renewable+Auction+Mechanism.htm>.

<sup>31</sup> Attachment A to Board memorandum at 2.

The ISO also explained that there is no misalignment between the RAM program and the ISO's interconnection process. The interconnection customer can request any proposed project modification after the phase II interconnection study results are provided. On the one hand, interconnection customers with a power purchase agreement that requires a commercial operation date within the 30-month timeline required under the RAM program are unlikely to request a delay in the commercial operation date for its project. On the other hand, if other project-related changes are needed (e.g., changes to inverters, the point of interconnection, etc.), the interconnection customer can request such modifications to meet the RAM program's 30-month timeline. The ISO also believes that allowing all interconnection customers to make modifications, including extensions of their commercial operation dates, may help projects without power purchase agreements to remain in the interconnection queue longer and compete to participate in future programs in addition to the RAM program, without having to go through the study process again.<sup>32</sup>

**C. Extension to Small Serial Generator Projects of Existing Tariff Provisions for Large Generators Regarding Maximum Length of Time Allowed in the Interconnection Queue (Topic 8)**

In conjunction with the topic 7 revisions discussed above, the ISO also proposes to extend to small generator projects the same maximum length of time allowed in the interconnection queue as applies to large generator projects under the current tariff.<sup>33</sup> There is no current length in queue timeline for small generators because of the expectation that small projects would be developed in a shorter time frame compared to large generators. Due to various factors, however, development timelines for small projects interconnecting to the ISO have not been substantially different than large projects. Accordingly, there is no reason to treat small and large generators differently with respect to length in queue and certainly small generators should not have the right to remain in the queue indefinitely or for a longer time than large generators. Therefore, extending these tariff provisions to small generator projects is just and reasonable. This will also improve the ISO's ability to manage the interconnection queue in by ensuring that non-viable projects do not remain stagnant in the queue for unreasonably long periods.<sup>34</sup>

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<sup>32</sup> Draft final proposal at 12.

<sup>33</sup> The ISO proposes to make these topic 8 changes to section 1.3.3 of appendix S, in order to include in that section provisions that parallel the existing provisions set forth in section 3.5.1 of appendix U. Topic 8 is addressed in the draft final proposal at pages 12-13 (section 4.3) and the Board memorandum at page 3.

<sup>34</sup> Generally, small projects are on a shorter development timeline than larger projects. Therefore, it is reasonable to require small projects to meet the in-service requirements which the

Consistent with the existing provisions applicable to large generators studied in the serial process, the expected in-service date for small projects in the serial process will be ten years from the date the interconnection request is received by the ISO, unless the interconnection customer demonstrates that engineering, permitting, and construction of the new facility of increase in capacity of the existing facility will take longer. The in-service date may exceed the date the interconnection request is received by the ISO by a period of up to ten years or longer where the interconnection customer, the applicable participating transmission owner, and the ISO agree, such agreement not to be unreasonably withheld. Consistent with the existing provisions applicable to large generators in the cluster study process, the expected commercial operation date for small projects in the cluster process will be seven years from the date the interconnection request is received by the ISO, unless the interconnection customer demonstrates that engineering, permitting, and construction of the new facility of increase in capacity of the existing facility will take longer. The commercial operation date may exceed the date the interconnection request is received by the ISO by a period of up to seven years or longer where the interconnection customer, the applicable participating transmission owner, and the ISO agree, such agreement not to be unreasonably withheld.

Stakeholders generally supported the ISO's topic 8 proposal. One stakeholder, SCE, stated that it supported the proposal with the qualification that the seven-year development timeframe for projects going through either the independent study process or the fast track process should be shortened to reflect the briefer durations of studies under those processes. In response, the ISO explained that the timeframe for projects in the independent study process and the fast track process to remain in the interconnection queue is beyond the scope of the IPE initiative. Another stakeholder, IEP, stated that it supported the proposal with the qualification regarding the RAM program discussed above with regard to topic 7. The ISO provided a response to IEP similar its response as to topic 7.<sup>35</sup>

#### **D. Clarification that the Applicable Participating Transmission Owner Tenders the Draft GIA (Topic 9)**

The ISO proposes to revise the tariff to state that the applicable participating transmission owner (rather than the ISO) will tender the draft GIA to the interconnection customer.<sup>36</sup> Currently the tariff states that the participating transmission owner and the ISO tender the draft GIA.

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Commission has determined to be reasonable as applied to large projects.

<sup>35</sup> Attachment A to Board memorandum at 3.

<sup>36</sup> The ISO proposes to make these topic 9 changes to sections 5.2 of appendix U, sections

This change is just and reasonable because the participating transmission owner rather than the ISO has the necessary cost and schedule information to tender the draft GIA. Accordingly, it is appropriate for the participating transmission owner to have the sole responsibility for tendering it.

Stakeholders fully supported the ISO's topic 9 proposal.<sup>37</sup>

**E. Change to the Triggering Event for Tendering the Draft GIA (Topic 10)**

The ISO proposes to make the conclusion of the applicable study results meeting,<sup>38</sup> rather than the issuance of the study report as under the existing tariff, the triggering event for tendering a draft GIA to the interconnection customer.<sup>39</sup> The applicable participating transmission owner will then be required to tender the draft GIA within 30 calendar days, the same amount of time permitted under the existing tariff, or earlier if all parties (*i.e.*, the ISO, the participating transmission owner, and the interconnection customer) agree.

This change is just and reasonable because it will allow sufficient time for the participating transmission owner and the ISO to incorporate changes discussed at the study results meeting into the draft GIA before it is tendered. Including any such changes in the draft GIA will help to facilitate negotiation of a final GIA within the negotiating timelines set forth in the tariff, which are triggered by the tendering of the draft GIA.<sup>40</sup>

Stakeholders generally supported the ISO's proposal as to topic 10. One stakeholder, LSA, supported the proposal with the qualification that the tariff should be further revised to allow an interconnection customer to elect to receive a draft GIA within 30 days after the study is issued. The ISO responded that it

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11.1.1 and 13.7 of appendix Y, and sections 13.1.1 and 15.7 of appendix DD. Topic 9 is addressed in the draft final proposal at pages 13-14 and the Board memorandum at page 3.

<sup>37</sup> Attachment A to Board memorandum at 3.

<sup>38</sup> That is, the results meeting to discuss the final phase II interconnection study report pursuant to appendix Y, or the results meeting to discuss the final phase II interconnection study, facilities study, or system impact study if the facilities study is waived, for an interconnection customer that requested energy-only deliverability status pursuant to appendix DD.

<sup>39</sup> The ISO proposes to make these topic 10 changes to section 11.1.1 of appendix Y, and section 13.1.1 of appendix DD. Topic 10 is addressed in the draft final proposal at pages 14-15 (section 4.5) and the Board memorandum at pages 3-4.

<sup>40</sup> See section 11.2 of appendix U; section 11.2 of appendix Y; section 13.2 of appendix DD.

concurred that the interconnection customer would be able to receive a draft GIA sooner than 30 days after the study results meeting, provided that all three negotiating parties agreed to such an accelerated schedule, which the ISO agreed to reflect in the tariff, with the details to be included in a business practice manual.

#### **F. Shortening of the Timeline for the ISO to Provide the Final GIA (Topic 11)**

The ISO proposes to shorten the timeline for providing the final executable form of the GIA to the interconnection customer and participating transmission owner from 15 business days to 10 business days after completion of the negotiation process and receipt of all requested information. In addition, the ISO proposes to revise the tariff to state that the ISO alone, rather than the ISO and the applicable participating transmission owner, will provide the final executable form of the GIA.<sup>41</sup>

These changes are just and reasonable because they will expedite the process for providing the final GIA to the interconnection customer. The changes will also simplify the process by requiring only one party – the ISO – to provide the final executable form of the GIA.

Stakeholders generally supported the ISO's topic 11 proposal. One stakeholder, LSA, supported the proposal with the qualification that the tariff should be further revised to allow an interconnection customer to elect to accelerate the GIA negotiations. The ISO does not believe that any such tariff modifications are necessary, however, because the negotiation timelines in the ISO's interconnection procedures are framed as outside deadlines, there is no prohibition against the parties mutually agreeing to conduct negotiations on a shorter timeframe for whatever reason.

#### **G. Additional Clarifications, Updates, and Corrections**

As explained above, the ISO proposes to make a number of additional clarifications, updates, and corrections to the tariff provisions related to generator interconnection. Some of these changes are based on the ISO's own internal review conducted in conjunction with the implementation of its Generator Interconnection and Delivery Allocation Procedures, and others are derived from stakeholder suggestions. These modifications are not intended to materially change established policies or the rights and obligations of the ISO or its market participants. Instead, these revisions are intended to add additional detail to

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<sup>41</sup> The ISO proposes to make these topic 11 changes to section 11.2 of appendix U, section 11.2 of appendix Y, and section 13.2 of appendix DD. Topic 11 is addressed in the draft final proposal at pages 15-18 and the Board memorandum at page 4.

clarify the meaning of tariff provisions, ensure consistency throughout the tariff as well as between the tariff and applicable business practices, and, in instance, to align the ISO tariff with the wholesale distribution tariffs of the participating transmission owners,<sup>42</sup> and correct typographical and other inadvertent errors.

Because of the number and non-material nature of these revisions, the ISO has included a list of all of these revisions, along with an explanation for each, in the table provided in attachment A to this filing. With the exception of some further minor clarifications identified shortly before filing, the tariff clarifications were presented to stakeholders as part of the tariff stakeholder process for Topics 5-11 discussed above.<sup>43</sup>

### III. Effective Date

The ISO requests that the tariff revisions contained in this filing be made effective 64 days after the date of this filing, *i.e.*, December 3, 2013.

### IV. Communications

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

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<sup>42</sup> These changes will clarify that any funds that the ISO receives from participating transmission owners due to provisions in their tariffs providing for the ISO to distribute forfeited study deposit or interconnection financial security funds from participating transmission owner interconnection customers will be distributed in the same manner as any such funds that are forfeited by ISO interconnection customers.

<sup>43</sup> The ISO posted a further revised draft of the tariff language on September 24, 2013. The ISO subsequently identified the need for further minor changes to Appendix DD, appendix 1 and Appendix DD, appendix 1, Attachment A to the ISO tariff. These changes are shaded in green in Attachment C to this filing.

**V. Service**

The ISO has served copies of this filing on the California Public Utilities Commission, 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.

**VI. Contents of this Filing**

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

Attachment A	Table of additional tariff clarifications, updates, and corrections
Attachment B	Clean ISO tariff sheets incorporating this tariff amendment
Attachment C	Red-lined document showing the revisions contained in this tariff amendment
Attachment D	Draft final proposal
Attachment E	Board memorandum
Attachment F	List of key dates in the stakeholder process

**VII. Conclusion**

For the reasons set forth in this filing, the ISO respectfully requests that the Commission accept the tariff revisions proposed in the filing effective as of December 3, 2013.

Respectfully submitted,

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/s/ Sidney M. Davies  
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**Attachment A – Table of Additional Clarifications, Updates, and Corrections**

**Interconnection Process Enhancements and Clarifications**

**California Independent System Operator Corporation**

**September 30, 2013**

**Table of Additional Tariff Clarifications, Updates, and Corrections**

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
Section 11.12.3.2	Delete text of section and designate section as not used	Section is out-of-date because it refers to fee that has been eliminated
Section 25.1.1	(1) Replace cross-references to appendices S, U, W, and Y with cross-reference to appendix DD; (2) delete language in section regarding applicability	(1) Update section to cross-reference the appropriate appendix; (2) because all requests under section must go through appendix DD, the applicability language no longer applies
Section 25.1.2	(1) Clarify that, in this section, “total capability” means “total generating capability” and that “change” means “substantially change”; (2) delete “from the previously approved generating capability”; (3) clarify that the ISO may, <u>at its option</u> , engage the services of the applicable participating transmission owner to conduct verification activities, and that the costs <u>incurred by the ISO and participating transmission owner (if any)</u> will be borne by the party making the request and will be included in an ISO invoice for verification activities; (4) clarify the grammar in the section	(1) Clarify tariff language; (2) adopt stakeholder proposal to remove unnecessary tariff language; (3) clarify tariff language, including adoption of stakeholder proposal; (4) correct grammar
Appendix S, section 1.3.4	Require the interconnection customer to submit, in writing, modifications to any information provided in the interconnection request, and set forth the process for identifying and making changes to the planned interconnection that may improve the costs and benefits	Include provisions similar to those in existing section 4.4 of appendix U

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
	of the interconnection	
Appendix S, Attachment 5, section 2.3.2	Add a space between comma and the word “the”	Correct typographical error
Appendix T, section 5.3	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix U, section 4.4.3	Clarify that the ISO may, at its option, engage the services of the applicable participating transmission owner to assess a modification, and that the costs incurred by the ISO and participating transmission owner (if any) will be borne by the party making the request and will be included in an ISO invoice for modification assessment activities	Include provisions similar to those in tariff section 25.1.2 as modified in this tariff amendment
Appendix V, article 5.17.3	Add article number 5.17.3	Provide missing article number
Appendix V, article 11.4	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix Y, section 3.5.1.1	Clarify that any funds received by the ISO from a participating transmission owner, pursuant to	Align treatment of such funds under the ISO tariff with provisions in participating transmission owner

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
	a requirement in the participating transmission owner’s wholesale distribution tariff for funds to be distributed to the ISO, will be treated in accordance with tariff section 37.9.4	wholesale distribution tariffs
Appendix Y, section 6.9.2.2	(1) Clarify that the ISO may, at its option, engage the services of the applicable participating transmission owner to assess a modification, and that the costs incurred by the ISO and participating transmission owner (if any) will be borne by the party making the request and will be included in an ISO invoice for modification assessment activities; (2) replace “ISO” with “CAISO”	(1) Include provisions similar to those in tariff section 25.1.2 as modified in this tariff amendment; (2) use tariff-defined term
Appendix Y, section 7.1	Clarify that the phase II interconnection study will include identification of final reliability network upgrades needed in order to achieve commercial operation status for generating facilities	Adopt stakeholder proposal to align the section with current ISO and participating transmission owner practices and to clarify in the scope of the study that all reliability network upgrades are not necessarily needed for physical interconnection but are required for safe and reliable operation and commercial operation
Appendix Y, section 7.6	Change “LGIP” to “GIP”	Correct erroneous reference to LGIP
Appendix Y, section 9.2.3	(1) Delete the words “First” and “the” from section; (2) delete stray sentence fragment at end of section	(1) Correct typographical errors; (2) remove stray language

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
Appendix Y, section 9.2.4.1	Add reference to item (i) within the section	Provide missing reference
Appendix Y, section 9.2.5	Change cross-references from references to LGIP sections to references to GIP sections	Correct erroneous cross-references
Appendix Y, section 9.4.2.6	Clarify that any funds received by the ISO from a participating transmission owner, pursuant to a requirement in the participating transmission owner's wholesale distribution tariff for funds to be distributed to the ISO, will be treated in accordance with tariff section 37.9.4	Align treatment of such funds under the ISO tariff with provisions in participating transmission owner wholesale distribution tariffs
Appendix Y, section 12.3.2.1	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix Y, section 12.3.2.2	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix Y, appendix 8, section 2	Add section title	Provide missing section title
Appendix BB, title page for	Revise title of appendix H of appendix BB to refer to an asynchronous generating facility	Update title to reference current terminology

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
appendices		
Appendix BB, appendix H, section A(i)(5)	Delete second consecutive use of the word “the” in the section	Correct typographical error
Appendix CC, title page for appendices	Revise title of appendix H of appendix CC to refer to an asynchronous generating facility	Update title to reference current terminology
Appendix DD, table of contents	(1) Delete listing of section numbers that lack headings; (2) add listing of appendices 8-10	(1) Correct table of contents to eliminate section numbers without headings; (2) update table of contents to include these appendices
Appendix DD, section 3.5.1.1	Clarify that any funds received by the ISO from a participating transmission owner, pursuant to a requirement in the participating transmission owner’s wholesale distribution tariff for funds to be distributed to the ISO, will be treated in accordance with tariff section 37.9.4	Align treatment of such funds under the ISO tariff with provisions in participating transmission owner wholesale distribution tariffs
Appendix DD, section 3.5.2.2	Revise tariff cross-reference from “section 14.5” to “section 15.5”	Correct erroneous cross-reference
Appendix DD, section 4.2.1.2	Include additional provisions regarding requirements for requests for independent study of behind-the-meter expansion	Include the same provisions also included in section 4.2.1.2 of appendix Y
Appendix DD,	Revise tariff cross-reference from “4.2.1(i)” to “4.2.1.1(i)”	Correct erroneous cross-reference

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
section 4.2.2		
Appendix DD, section 6.1.3	Add reference to the GIDAP	Provide missing reference
Appendix DD, section 6.6	Change the phrase “two associated Cluster Application Windows” to “associated Cluster Application Window”	ISO now only uses single cluster application window
Appendix DD, section 6.7	(1) Replace “ISO” with “CAISO”; (2) delete stray letter “I” in section	(1) Use tariff-defined term; (2) correct typographical error
Appendix DD, section 6.7.2.2	(1) Delete tariff cross-reference to section 7.1; (2) clarify that the ISO may, at its option, engage the services of the applicable participating transmission owner to assess a modification, and that the costs incurred by the ISO and participating transmission owner (if any) will be borne by the party making the request and will be included in an ISO invoice for modification assessment activities	(1) Remove erroneous use of cross-reference; (2) include provisions similar to those in tariff section 25.1.2 as modified in this tariff amendment
Appendix DD, section 7.2	(1) Revise tariff cross-reference from “section 13.2” to “section 14.2”; (2) clarify that there is no maximum cost responsibility for area delivery network upgrades under the section	(1) Correct erroneous cross-reference; (2) clarify treatment of area deliverability network upgrades
Appendix DD, section 7.3	Add period at the end of the section	Provide missing punctuation
Appendix	(1) Replace “ISO” with	(1) Use tariff-defined term; (2)

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
DD, section 7.4.1	“CAISO”); (2) replace comma with semicolon; (3) replace “this GIDAP” with “section 8.9.3”	correct punctuation; (3) specify the relevant cross-reference
Appendix DD, section 8.1.1	(1) Clarify that the phase II interconnection study will include identification of final reliability network upgrades needed in order to achieve commercial operation status for generating facilities; (2) delete cross-reference to section 11.2	(1) Adopt proposal from stakeholder to align the section with current ISO and participating transmission owner practices and to clarify in the scope of the study that all reliability network upgrades are not necessarily needed for physical interconnection but are required for safe and reliable operation and commercial operation; (2) remove erroneous cross-reference
Appendix DD, section 8.6	Include criteria that must be met in order for the phase II interconnection study to be completed within an accelerated timeframe of 150 calendar days following the completion of the re-assessment in preparation for the phase II interconnection study	Include criteria comparable to the criteria in parallel section 7.6 of appendix Y
Appendix DD, section 8.9.1(a)(ii)	Revise tariff cross-reference from “section 8.9.4” to “section 8.9.3”	Correct erroneous cross-reference
Appendix DD, section 8.9.2	(1) Replace “ISO” with “CAISO”; (2) add the word “either” to provision on the minimum eligibility criteria to be allocated available transmission plan deliverability	(1) Use tariff-defined term; (2) clarify the minimum eligibility criteria to receive an allocation of available transmission plan deliverability
Appendix DD, section	Revise tariff cross-reference from “section 8.9.1” to “section 8.9.2”	Correct erroneous cross-reference

Tariff provision	Clarification, update, or correction	Reason for clarification, update, or correction
8.9.4(3)		
Appendix DD, sections 9.2.1(i) and - (ii)	(1) Clarify that generating facilities eligible for deliverability under the annual full capacity deliverability option include a generating facility previously studied for energy-only deliverability status and an option (A) generating facility not allocated transmission plan deliverability, in any prior (rather than the last) interconnection study cycle; (2) add phrase “and for which all interconnection studies have been completed”; (3) add semicolon to subsection	(1) Clarify the terms for generating facilities to be eligible for deliverability under the annual full capacity deliverability option; (2) clarify that the ISO will not accept requests pursuant to the section while studies are still ongoing; (3) correction punctuation in subsection
Appendix DD, section 11.2.3.2(1)	Clarify that the additional cap on the required interconnection financial security described in the section applies if an interconnection customer switches its status from full capacity deliverability status <u>or partial capacity deliverability status</u> to energy-only deliverability status within 10 (rather than 5) business days following the phase I interconnection study results meeting	Clarify and modify the circumstances in which the additional cap applies
Appendix DD, section 11.2.4.1	Clarify that the interconnection customer must post an interconnection financial security instrument in an amount <u>equal to the lesser of</u> the quantities listed in the section	Clarify the amount of the interconnection financial security instrument that the interconnection customer must post
Appendix DD, section	Revise tariff cross-references from “sections 10.2.3 or 10.2.4”	Correct erroneous cross-references

Tariff provision	Clarification, update, or correction	Reason for clarification, update, or correction
11.2.5	to “sections 11.2.4.1 or 11.2.4.2”	
Appendix DD, section 11.3.1.4.3	Revise tariff cross-reference from “section 11.3.1.4.2” to “section 11.3.1.4”	Correct erroneous cross-reference
Appendix DD, section 11.3.1.6	Revise tariff cross-references from “section 10.3.2” to “section 11.3.2” and from “section 10.3.1” to “section 11.3.1”	Correct erroneous cross-references
Appendix DD, section 11.3.2.1	Revise tariff cross-references from “section 11.3.1.3.1” to “section 11.3.1.4.1” and from “section 11.3.1.3.2” to “section 11.3.1.4.2”	Correct erroneous cross-references
Appendix DD, section 11.4.2.1	Delete subsection (c) designation	Correct typographical error
Appendix DD, section 11.4.2.5	Clarify that any funds received by the ISO from a participating transmission owner, pursuant to a requirement in the participating transmission owner’s wholesale distribution tariff for funds to be distributed to the ISO, will be treated in accordance with tariff section 37.9.4	Align treatment of such funds under the ISO tariff with provisions in participating transmission owner wholesale distribution tariffs
Appendix DD, section 12	Add reference to the GIDAP	Provide missing reference to the GIDAP
Appendix DD, section 13.1.1	Include provision clarifying that <u>if the interconnection customer requested full capacity deliverability status or partial deliverability status, then</u> within	Clarify the circumstances and timeline for the interconnection customer to be tendered a draft GIA and draft appendices

Tariff provision	Clarification, update, or correction	Reason for clarification, update, or correction
	30 calendar days after the ISO provides the <u>updated</u> phase II interconnection study report <u>which includes the allocation of transmission plan deliverability</u> to the interconnection customer, the interconnection customer will be tendered a draft GIA and draft appendices, <u>or earlier if all parties agree</u>	
Appendix DD, section 13.1.2	Delete tariff cross-reference to section 15.3	Remove erroneous cross-reference
Appendix DD, section 14.3.2.1	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix DD, section 14.3.2.2	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix DD, section 15.1.1	Add reference to the GIDAP	Provide missing reference to the GIDAP
Appendix DD, appendix 1	Revise interconnection request form	Update and clarify interconnection request requirements
Appendix DD, appendix 1,	Revise generating facility data requirements	Update and clarify requirements

<b>Tariff provision</b>	<b>Clarification, update, or correction</b>	<b>Reason for clarification, update, or correction</b>
attachment A		
Appendix DD, appendix 3	Add references to the GIDAP	Provide missing references to the GIDAP
Appendix DD, appendix 3, appendix A	Add a space between “6.2” and “of”	Correct typographical error
Appendix DD, appendix 3, appendix B	Add option to choose partial capacity deliverability status in data form	Update list of options available to the interconnection customer
Appendix DD, appendix 4	Add reference to the GIDAP	Provide missing reference to the GIDAP
Appendix DD, appendix 6	Add references to the GIDAP	Provide missing references to the GIDAP
Appendix EE, article 11.4	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right
Appendix FF, article 5.3	Add provision to give interconnection customer the one-time option to decline all or a part of a refund of the cost of network upgrades entitled to the interconnection customer	Adopt stakeholder proposal to clarify that the interconnection customer holds the right in its sole discretion to receive reimbursement for the costs of network upgrades but is under no obligation to exercise that right

**Attachment B – Clean Tariff Sheets**  
**Interconnection Process Enhancements and Clarifications**  
**California Independent System Operator Corporation**  
**September 30, 2013**

**11.12.3.2 [Not used]**

\* \* \*

**25.1.1 Interconnection Request And Generating Unit Requirements**

The owner of a Generating Unit described in Section 25.1 (a), (b), or (c), or its designee, shall be an Interconnection Customer required to submit an Interconnection Request and comply with Appendix DD.

**25.1.2 Affidavit Requirement**

If the owner of a Generating Unit described in Section 25.1(d), or its designee, represents that the total generating capability and electrical characteristics of the Generating Unit will be substantially unchanged, then that entity must submit an affidavit to the CAISO and the applicable Participating TO representing that the total generating capability and electrical characteristics of the Generating Unit have remained substantially unchanged. However, if there is any change to the total generating capability and electrical characteristics of the Generating Unit, the affidavit shall include supporting information describing any such changes. The CAISO and the applicable Participating TO shall have the right to verify whether or not the total generating capability or electrical characteristics of the Generating Unit have substantially changed or will substantially change. The CAISO may, at its option, engage the services of the applicable Participating TO in conducting such verification activities, Costs incurred by the CAISO and Participating TO (if any) shall be borne by the party making the request under Section 25.1.2, and such costs shall be included in a CAISO invoice for verification activities.

\* \* \*

**Appendix S Small Generator Interconnection Procedures**

\* \* \*

**1.3.3 Interconnection Request**

The Interconnection Customer shall submit its Interconnection Request to the CAISO, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date and time stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of

receipt by the CAISO within three (3) Business Days of receiving the Interconnection Request. The CAISO shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the CAISO shall provide a notice that the Interconnection Request is incomplete, along with a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the CAISO.

The expected In-Service Date of the new Small Generating Facility shall not exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates that engineering, permitting and construction of the new Small Generating Facility or increase in capacity of the existing Generating Facility will take longer. The In-Service Date may exceed the date the Interconnection Request is received by the CAISO by a period up to ten years, or longer where the Interconnection Customer, the applicable Participating TO and the CAISO agree, such agreement not to be unreasonably withheld.

#### 1.3.4 Modifications

The Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The Interconnection Customer shall retain its Queue Position if the modifications are determined not to be Material Modifications pursuant to SGIP Section 1.3.4.1. Notwithstanding the above, 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 and the Interconnection Customer shall retain its Queue Position .

**1.3.4.1** Prior to making any modification, the Interconnection Customer must 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, shall evaluate the proposed modifications and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 1.3.4, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except those deemed acceptable under SGIP Section 1.3.4 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**1.3.4.2** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the

CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

\* \* \*

- 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

\* \* \*

## **Appendix T**

### **Small Generator Interconnection Agreement**

\* \* \*

3.4.5 Modification of the Small Generating Facility

Prior to making any modification to the Small Generating Facility, the Interconnection Customer must first request that the CAISO evaluate whether any such proposed modification is a Material Modification and receive written authorization from the Participating TO and the CAISO. Such authorization shall not be unreasonably withheld. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 1.3.4 of Appendix S, and such costs shall be included in any CAISO invoice for modification assessment activities. 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. Any change to the Point of Interconnection, except those deemed acceptable under this article of the SGIA or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

\* \* \*

5.3 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 (a) 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 refund of the cost of Network Upgrades in accordance with Article 5.3.1, and/or (b) decline all or a part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 5.3.1.

\* \* \*

**Appendix U**

**Standard Large Generator  
Interconnection Procedures (LGIP)**

\* \* \*

- 4.4.3** Prior to making any modification other than those specifically permitted by LGIP Sections 4.4.1, 4.4.2, and 4.4.5, the Interconnection Customer must 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, shall evaluate the proposed modifications and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 5.1, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except those deemed acceptable under LGIP Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

\* \* \*

- 4.4.6** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the

Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

## **5.2 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 applicable Participating TO 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 successor Participating TO 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 Participating TO 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 Participating TO has tendered a draft LGIA to the Interconnection Customer but the Interconnection Customer has neither executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, the Interconnection Customer must complete negotiations with the applicable Participating TO which has the ownership of the Point of Interconnection.

\* \* \*

## **11.2 Negotiation**

Notwithstanding LGIP Section 11.1, 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 LGIA at any time after the Interconnection Customer executes the Interconnection Facilities Study Agreement. The applicable Participating TO(s) and CAISO and the Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) calendar days after tender of the final Interconnection Facilities Study report. 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 LGIA pursuant to LGIP Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to LGIP Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within ninety (90) calendar days after issuance of the final Interconnection Facilities Study report fails to request either the filing of the unexecuted LGIA 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 LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to LGIP Section 13.5 within ninety (90) calendar days after issuance of the final Interconnection Facilities Study report, it shall be deemed to have withdrawn its Interconnection Request. The CAISO shall provide to the Interconnection Customer a final LGIA within ten (10) Business Days after the completion of the negotiation process and receipt of all requested information.

\* \* \*

## **Appendix V**

## **Standard Large Generator Interconnection Agreement**

\* \* \*

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.

\* \* \*

11.4 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 (a) 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 refund of the cost of Network Upgrades in accordance with Article 11.4.1, and/or (b) declare all or a part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 11.4.1.

\* \* \*

### **Appendix Y GIP For Interconnection Requests Generator Interconnection Procedures (GIP)**

\* \* \*

**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 of this GIP, 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 GIP 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 GIP Section 3.5.1 be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under GIP 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 GIP 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.
- (c) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under GIP Section 3.8 at any time more than thirty (30) calendar days after the Results Meeting (or the latest date permitted under this GIP 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. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

**6.9.2.2** 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 five (5) 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 6.9.2 shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project; (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 must 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 6.9.2, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except for that specified by the CAISO in an Interconnection Study or otherwise allowed under this GIP Section 6.9.2, 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 GIP Section 6.9.2.

**6.9.2.3** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the

CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

\* \* \*

## **7.1 Scope Of 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 two Phase I Interconnection Studies. Beginning with Queue Cluster 5, the Phase II Interconnection Study 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, (ii) identify final Reliability Network Upgrades needed in order to achieve Commercial Operation status for the Generating Facilities, (iii) assign responsibility for financing the identified final Reliability Network Upgrades, (iv) identify, following coordination with the CAISO's Transmission Planning Process, final Delivery Network Upgrades needed to interconnect those Generating Facilities selecting Full Capacity Deliverability Status, (v) assign responsibility for financing Delivery Network Upgrades needed to interconnect those Generating Facilities selecting Full Capacity Deliverability Status, (vi) identify for each Interconnection Request final Point of Interconnection and Participating TO's Interconnection Facilities, (vii) provide a +/-20% estimate for each Interconnection Request of the final Participating TO's Interconnection Facilities, (viii) optimize in-service timing requirements based on operational studies in order to maximize achievement of the Commercial Operation Dates of the Generating Facilities, and (ix) if it is determined that the Delivery Network Upgrades cannot be completed by the Interconnection Customer's identified Commercial Operation Date, provide that operating procedures necessary to allow the Generating Facility to interconnect as an energy-only resource, on an interim-only basis, will be developed and utilized until the Delivery Network Upgrades for the Generating Facility are completed and placed into service.

With respect to the foregoing items, the 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.

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 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 CAISO Website or within a Business Practice Manual.

\* \* \*

## **7.6 Accelerated Phase II Interconnection Study Process**

The Phase II Interconnection Study shall be completed within one hundred fifty (150) calendar days following the posting of the initial Interconnection Financial Security under GIP Section 9 where the Interconnection Request meets the following criteria: (i) the Interconnection Request was not grouped with any other Interconnection Requests during the Phase I Interconnection Study or was identified as interconnecting to a point of available transmission during the Phase I Interconnection Study, and (ii) the Interconnection Customer is able to demonstrate that the general Phase II Interconnection Study timeline under GIP Section 7.5 is not sufficient to accommodate the Commercial Operation Date of the Large Generating Facility.

In addition to the above criteria, the CAISO may apply to FERC in coordination with the Interconnection Customer for a waiver of the timelines in this GIP to meet the schedule required by an order, ruling, or regulation of the Governor of the State of California, the CPUC, or the CEC.

\* \* \*

### **9.2.3 Posting Amount for Network Upgrades.**

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 equal to 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.

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 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.

Notwithstanding the foregoing, if the costs of the estimated Network Upgrades are less than the minimum posting amounts set forth above, the posting amount required will be equal to the estimated Network Upgrade amount.

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, as permitted in Section 7.1 of this GIP, 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.

\* \* \*

**9.2.4.1 For Small Generating Facilities.** 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 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 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.

\* \* \*

**9.2.5 Consequences for Failure to Post.** The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this GIP Section 9.2 shall result in the Interconnection Request being deemed withdrawn and subject to GIP 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.

\* \* \*

**9.4.2.6 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 GIP Section 9.4. All non-refundable portions of the Interconnection Financial Security remitted to the CAISO in accordance with this GIP Section 9.4 shall be treated in accordance with CAISO Tariff Section 37.9.4. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

## **11.2 Negotiation**

Notwithstanding GIP Section 11.1, 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 GIP Section 11.1 and request submission of the unexecuted GIA with FERC or initiate Dispute Resolution procedures pursuant to GIP Section 13.5. 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 GIP Section 13.5 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 CAISO shall provide to the Interconnection Customer a final GIA within ten (10) Business Days after the completion of the negotiation process and receipt of all requested information.

\* \* \*

### **12.3.2.1 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, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades in accordance with its cost responsibility assigned under GIP Sections 7.3 and 7.4. Such 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.

Instead of direct payments, the Interconnection Customer may elect 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.

#### **12.3.2.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities**

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, 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 under GIP Sections 7.3 and 7.4 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 GIP Section 12.3.2.2. 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.

Instead of direct payments, the Interconnection Customer may elect to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with the CAISO Tariff Section 36.11 associated with the Network Upgrades for each phase, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the phase in accordance with the GIA.

\* \* \*

### **13.7 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 Participating TO 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.

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## **Appendix 8**

### **Transition of Existing SGIP Interconnection Requests to the GIP**

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#### **1.2.2 Special Definitions for this GIP Appendix 8**

In this Appendix 8 to the GIP, the following words and expressions shall have the meanings set opposite them:

"SGIP Serial Study Group" shall mean those Interconnection Customers with valid Interconnection Requests submitted pursuant to Appendix S of the CAISO Tariff prior to December 18, 2010 and who have executed System Impact Study or Facilities Study Agreements that provide for the completion of such studies by December 18, 2010.

"SGIP Transition Cluster" shall mean those Interconnection Customers with valid Interconnection Requests submitted pursuant to Appendix S of the CAISO Tariff prior to December 18 , 2010 and which have not executed System Impact Study or Facilities Study Agreements that provide for the completion of such studies by December 18, 2010.

## **2. Transition of Projects in SGIP Serial Study Group**

**2.1** An Interconnection Request deemed to be included in the SGIP Serial Study Group that wishes to be studied as an Energy-Only Deliverability Status Generating Facility shall not be required to conform to the provisions of Appendix Y of the CAISO Tariff. Rather, such Interconnection Requests will continue to be processed per the procedures set forth in Appendix S to the CAISO Tariff, unless they specifically indicate, in writing, within five (5) Business Days from the effective date of this Appendix 8 to the GIP, that they wish to be included in either the SGIP Transition Cluster, studied for Full Capacity Deliverability Status, or, if eligible, studied under the Independent Study Process set forth in Section 4 of Appendix Y.

\* \* \*

**3.4** At the conclusion of the Phase II Interconnection Study for the CAISO's first and second Queue Clusters, each Interconnection Customer remaining in the SGIP Transition Cluster shall receive a Phase II Interconnection Study report, which will indicate each Interconnection Customer's allocated share of costs for Interconnection Facilities and Reliability Network Upgrades. If the Interconnection Customer wishes to continue in the queue, the Interconnection Customer must sign and execute a Small Generator Interconnection Agreement within ninety (90) calendar days of receiving the final report and post the required Interconnection Financial Security as set forth in Section 9.3 of Appendix Y.

\* \* \*

## **CAISO TARIFF APPENDIX BB**

### **Standard Large Generator Interconnection Agreement**

\* \* \*

#### **ARTICLE 30. MISCELLANEOUS**

\* \* \*

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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 [Not Used]

Appendix H Interconnection Requirements for an Asynchronous Generating Facility

\* \* \*

## **Appendix H To LGIA**

\* \* \*

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.

\* \* \*

## **CAISO TARIFF APPENDIX CC**

### **Large Generator Interconnection Agreement for Interconnection Requests in a Queue Cluster Window**

\* \* \*

## **ARTICLE 30. MISCELLANEOUS**

\* \* \*

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Appendix B Milestones

Appendix C Interconnection Details

Appendix D Security Arrangements Details

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\* \* \*

**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. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

### **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 15.5 by so notifying the CAISO within two (2) Business Days of the notice of invalidity.

\* \* \*

#### 4.2.1.2

#### **Requirement Set Number Two: for Requests for Independent Study of Behind-the-Meter Capacity Expansion of Generating Facilities**

This Section 4.2.1.2 applies to an Interconnection Request relating to a behind-the-meter capacity expansion of a Generating Facility. 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:

- (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 the incremental increase in capacity 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 Reliability Network Upgrades for the original Generating Facility have been placed in service. An Interconnection Request for behind-the-meter capacity expansion may be submitted prior to the Commercial Operation Date of the original Generating Facility.
  - 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. With the consent of the CAISO and the applicable Participating TO(s), the Interconnection Customer may make the Generating Facilities that will be tied to the expansion breaker a mixture of original and expanded facilities such that the total installed capacity behind the expansion breaker is equal to or greater than the planned amount of behind-the-meter capacity expansion.

- 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.
- 1) 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 4.2.1.1(i) is less than 100 amperes, the Generating Facility shall pass the short circuit test.

\* \* \*

#### **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 GIDAP. 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.

\* \* \*

## **6.6 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 associated Cluster Application Window, 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 CAISO 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. 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.

\* \* \*

#### **6.7.2.2**

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; (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 must 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 6.7.2, and such costs shall be included in any CAISO invoice for modification assessment activities. 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.

#### **6.7.2.3**

The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below,

any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

\* \* \*

## **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 14.3.2 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. There is no maximum cost responsibility for 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.

\* \* \*

#### **7.4.1**

The CAISO 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 Section 8.9.3 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

\* \* \*

#### **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 in order to achieve Commercial Operation status for 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 11.3. 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.

\* \* \*

## **8.6 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, where the Interconnection Request meets the following criteria: (i) the Interconnection Request was not grouped with any other Interconnection Requests during the Phase I Interconnection Study or was identified as interconnecting to a point of available transmission during the Phase I Interconnection Study, and (ii) the Interconnection Customer is able to demonstrate that the general Phase II Interconnection Study timeline under GIDAP Section 8.5 is not sufficient to accommodate the Commercial Operation Date of the Generating Facility.

In addition to the above criteria, the CAISO may apply to FERC in coordination with the Interconnection Customer for a waiver of the timelines in this GIDAP to meet the schedule required by an order, ruling, or regulation of the Governor of the State of California, the CPUC, or the CEC.

\* \* \*

### **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 8.9.3.
- (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.

This first component is performed for the purpose of determining the amount of TP Deliverability available for allocation to the current queue cluster in accordance with section 8.9.2, and shall not affect the rights and obligations of proposed Generating Facilities in Queue Cluster 4 or earlier with respect to the construction and funding of Network Upgrades identified for such Generating Facilities, or their requested Deliverability Status. Such rights and obligations will continue to be determined pursuant to the GIP and the Generating Facility's GIA.

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

If the CAISO determines, under Section 8.9.1 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 CAISO 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 CAISO 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 either (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 CAISO 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.

\* \* \*

#### 8.9.4

#### **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 8.9.2. Parking an Interconnection Request does not confer a preference with respect to any other Interconnection Request with respect to allocation of TP Deliverability.

\* \* \*

## 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 any prior Interconnection Study under the CAISO Tariff (including a Small Generating Facility studied under the provisions of Appendix S of the CAISO Tariff), and for which all

Interconnection Studies have been completed, or which has a 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 any prior 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.

\* \* \*

### **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 or Partial Capacity Deliverability Status to Energy-Only Deliverability Status within ten (10) 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 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 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.

\* \* \*

**11.2.5 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 11.2.4.1 or 11.2.4.2, then the posting amount required will be equal to the estimated Network Upgrades amount or the Participating TO Interconnection Facilities amount.

\* \* \*

**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 above, then posting amount required will be equal to the estimated Network Upgrade 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 11.3.2 rather than 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 11.3.1.4.1 for Small Generator Interconnection Customers or in Section 11.3.1.4.2 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.

\* \* \*

#### **11.4.2.1 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 \$10,000 per requested and approved megawatt of the Generating Facility Capacity at the time of withdrawal.

\* \* \*

#### **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. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

#### **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 GIDAP. 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** If the Interconnection Customer requested Full Capacity Deliverability Status or Partial Deliverability Status, then within thirty (30) Calendar Days after the CAISO provides the updated Phase II Interconnection Study report (or by an earlier date, if all parties agree) which includes the allocation of TP Deliverability to the Interconnection Customer, the applicable Participating TO shall tender a draft GIA, together with draft appendices. If the Interconnection Customer requested Energy-Only Deliverability Status, then within thirty (30) Calendar Days following the results meeting for the final Phase II Interconnection Study (or by an earlier date, if all parties agree), Facilities Study, or System Impact Study if the Facilities Study is waived, the applicable Participating TO 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 EE or Appendix FF, 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 Section 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 CAISO shall provide to the Interconnection Customer a final GIA within ten (10) Business Days after the completion of the negotiation process and receipt of all requested information.

\* \* \*

#### **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, unless the Interconnection Customer has provided written notice to

the CAISO that it is declining all or part of such repayment, 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, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, 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.

\* \* \*

### 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 GIDAP. 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.

\* \* \*

### 15.7 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 Participating TO 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 one copy of this completed form pursuant to Section 7 of this Appendix 1 below.

1. The undersigned Interconnection Customer submits this request to interconnect its Generating Facility 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 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):  
 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 Cluster Process only)  
 Energy Only
4. The Interconnection 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;

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 equipment configuration (if more than one type is chosen include nameplate MW for each);

<u>Technology</u>	<u>Nameplate</u>
___ 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):

General description of the equipment configuration (e.g. number, size, type, etc):

- d. Proposed In-Service Date (first date transmission is needed to the facility), Trial Operation date and Commercial Operation Date by month, day, and year and term of service (dates must be sequential); \_\_\_\_\_

Proposed Trial Operation Date: \_\_\_\_\_

Proposed Commercial Operation Date: \_\_\_\_\_

Proposed 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: \_\_\_\_\_

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. One (1) copy is required.**

5. Applicable deposit amount made payable to California ISO. Send check to CAISO (see section 7 below for details) along with the:

a. Interconnection Request for processing.

b. Attachment A (Interconnection Request Generating Facility Data).

6. Evidence of Site Exclusivity as specified in the GIDAP and name(s), address(es) and contact information of site owner(s) (check one):

\_\_\_\_\_ Is attached to this Interconnection Request

\_\_\_\_\_ Deposit in lieu of Site Exclusivity attached, Site Exclusivity will be provided at a later date in accordance with this GIDAP

7. This Interconnection Request shall be submitted to the CAISO representative indicated below:

California ISO

Attn: Grid Assets

P.O. Box 639014

Folsom, CA 95763-9014

Overnight address:

California ISO

Attn: Grid Assets

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 **one** copy of this completed form.

1. **Provide one set of original prints (no larger than 11" x 17") or soft copy on cd/flashdrive 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. **Generating Facility Information**

- 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: \_\_\_\_\_
- H. Year Manufactured \_\_\_\_\_
- I. 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 (+/- %): \_\_\_\_\_
- O. 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. **Synchronous Generator – General Information:**

(Please 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. 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.
- I. Rated Hydrogen Cooling Pressure in psig (Steam Units only): \_\_\_\_\_
- 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.

**4. Excitation System Information**

(Please 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 commutator 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): \_\_\_\_\_
- 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?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**5. Power System Stabilizer Information**

(Please repeat the following for each generator model. All new generators are required to install PSS unless an exemption has been obtained from WECC. Such an exemption can be obtained for units that do not have suitable excitation systems.)

- A. 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)
- D. Please attach a copy of a block diagram of the PSS from the PSS Instruction Manual and the correspondence between dial settings and the time constants or PSS gain.
- E. Other comments regarding the PSS?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**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) 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: \_\_\_\_\_ %
- B. Hydro turbines:
  - (1) Turbine efficiency at rated load: \_\_\_\_\_ %
  - (2) Length of penstock: \_\_\_\_\_ ft
  - (3) Average cross-sectional area of the penstock: \_\_\_\_\_ ft<sup>2</sup>
  - (4) Typical maximum head (vertical distance from the bottom of the penstock, at the 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: \_\_\_\_\_ ft<sup>3</sup>/sec
  - (7) Average energy rate: \_\_\_\_\_ kW-hrs/acre-ft
  - (8) Estimated yearly energy production: \_\_\_\_\_ kW-hrs
- C. 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?  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**7. Induction Generator Data:**

- A. Rated Generator Power Factor at rated load: \_\_\_\_\_
- B. 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 Volts: \_\_\_\_\_
- Field Amperes: \_\_\_\_\_
- Motoring Power (MW): \_\_\_\_\_
- Neutral Grounding Resistor (If Applicable): \_\_\_\_\_
- I<sup>2</sup>t or K (Heating Time Constant): \_\_\_\_\_
- 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 Vars (No Load): \_\_\_\_\_
- Reactive Power Required In Vars (Full Load): \_\_\_\_\_
- Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on 100 MVA Base

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.

**8. Generator Short Circuit Data**

For each generator model, provide the following reactances expressed in p.u. on the generator base:

- X<sup>1</sup> – positive sequence subtransient reactance: \_\_\_\_\_ p.u.\*\*
- X<sup>2</sup> – negative sequence reactance: \_\_\_\_\_ p.u.\*\*
- X<sup>0</sup> – zero sequence reactance: \_\_\_\_\_

Generator Grounding (select 1 for each model):

- A. \_\_\_\_\_ Solidly grounded
- B. \_\_\_\_\_ Grounded through an impedance  
(Impedance value in p.u on generator base. R: \_\_\_\_\_ p.u.  
X: \_\_\_\_\_ p.u.)
- C. \_\_\_\_\_ Ungrounded

**9. Step-Up Transformer Data**

For each step-up transformer, fill out the data form provided in Table 1.

**10. Interconnection Facilities Line Data**

There is no need to provide data for new lines that are to be planned by the Participating TO. However, for transmission lines that are to be planned by the generation developer, please provide the following information:

Nominal Voltage: \_\_\_\_\_ kV  
 Line Length: \_\_\_\_\_ miles  
 Line termination 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: \_\_\_\_\_° \_\_\_\_\_ 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:

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. **For inverter based generating facilities, select the appropriate generator and control models from the General Electric PSLF Program Manual and provide the required input data. Provide a completed \*.dyd file that contains the information specified in this section. One copy of this data should be provided on DVD, CD, or USB flash drive media.**

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.

\* \* \*

### Appendix 3

#### **GENERATOR INTERCONNECTION STUDY PROCESS AGREEMENT FOR QUEUE CLUSTERS**

\* \* \*

- 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 "GIDAP" or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.

\* \* \*

- 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 GIDAP. 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 GIDAP.

\* \* \*

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 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 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".

\* \* \*

#### **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 6.2 of the GIDAP, and the following assumptions:

\* \* \*

#### **Appendix B**

\* \* \*

Level of Deliverability: Choose one of the following:

\_\_\_\_\_ Energy Only

\_\_\_\_\_ Full Capacity

\_\_\_\_\_ Partial Capacity for \_\_\_\_\_ MWs

\* \* \*

#### **Appendix 4**

**AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO  
GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY  
AGREEMENTS**

\* \* \*

- 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 GIDAP. 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.

\* \* \*

**Appendix 6  
GIDAP AGREEMENT FOR INDEPENDENT STUDY PROCESS**

\* \* \*

- 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 GIDAP. 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 GIDAP.

\* \* \*

**Appendix EE  
Large Generator Interconnection Agreement  
for Interconnection Requests Processed under the Generator Interconnection and Deliverability  
Allocation Procedures (Appendix CC of the CAISO Tariff)**

\* \* \*

- 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 (a) 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, and/or (b) decline all or part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 11.4.1.

\* \* \*

**Appendix FF**

**Small Generator Interconnection Agreement for Interconnection Requests Processed Under the Generator Interconnection and Deliverability Allocation Procedures**

\* \* \*

3.4.5 Modification of the Small Generating Facility

Prior to making any modifications to the Small Generating Facility, the Interconnection Customer must first request that the CAISO evaluate whether such modification is a Material Modification and receive written authorization from the Participating TO and the CAISO. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 6.7.2 of Appendix DD, and such costs shall be included in any CAISO invoice for modification assessment activities. 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. Any change to the Point of Interconnection, except those deemed acceptable under this article of the GIDAP SGIA or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

\* \* \*

5.3 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 (a) 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, and/or (b) decline all or a part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 5.3.1.

\* \* \*

**Attachment C – Marked Tariff Sheets**  
**Interconnection Process Enhancements and Clarifications**  
**California Independent System Operator Corporation**  
**September 30, 2013**

### 11.12.3.2 ~~[Not used]~~ Process Fee

~~A fee to defray the costs of processing the Participating Intermittent Resource Export Fee will be levied as specified in Schedule 4 of Appendix F.~~

\* \* \*

### 25.1.1 Interconnection Request And Generating Unit Requirements

The owner of a Generating Unit described in Section 25.1 (a), (b), or (c), or its designee, shall be an

Interconnection Customer required to submit an Interconnection Request and comply with ~~Appendix U (the LGIP), Appendix Y (the GIP), Appendix S (the SGIP), or Appendix W/Appendix DD, as applicable, which applicability shall be based on the maximum rated capacity of the new total capability of the power plant, including the capability of all of multiple energy production devices at a site, consistent with Section 4.10 of the SGIP.~~

### 25.1.2 Affidavit Requirement

If the owner of a Generating Unit described in Section 25.1(d), or its designee, represents that the total generating capability and electrical characteristics of the Generating Unit will be substantially unchanged ~~from the previously approved generating capability~~, then that entity must submit an affidavit to the CAISO and the applicable Participating TO representing that the total generating capability and electrical characteristics of the Generating Unit will have remained substantially unchanged. ~~However, if~~ there is any change to the total generating capability and electrical characteristics of the Generating Unit, ~~however,~~ the affidavit shall include supporting information describing any such changes. The CAISO and the applicable Participating TO shall have the right to verify whether or not the total generating capability or electrical characteristics of the Generating Unit have substantially changed or will substantially change. The CAISO may, at its option, engage the services of the applicable Participating TO in ~~the CAISO's~~ conducting such verification activities, ~~in which case the such~~ costs incurred by the CAISO and Participating TO (if any) shall be borne by the party making the request under Section 25.1.2, and such costs shall be included in ~~any~~ CAISO invoice for verification activities.

\* \* \*

## Appendix S Small Generator Interconnection Procedures

\* \* \*

### 1.3.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the CAISO, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date and time stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the CAISO within three (3) Business Days of receiving the Interconnection Request. The CAISO shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the CAISO shall provide a notice that the Interconnection Request is incomplete, along with a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the CAISO.

The expected In-Service Date of the new Small Generating Facility shall not exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates that engineering, permitting and construction of the new Small Generating Facility or increase in capacity of the existing Generating Facility will take longer. The In-Service Date may exceed the date the Interconnection Request is received by the CAISO by a period up to ten years, or longer where the Interconnection Customer, the applicable Participating TO and the CAISO agree, such agreement not to be unreasonably withheld.

### 1.3.4 Modifications

The Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The Interconnection Customer shall retain its Queue Position if the modifications are determined not to be Material Modifications pursuant to SGIP Section 1.3.4.1. Notwithstanding the above, 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 and the Interconnection Customer shall retain its Queue Position. ~~Any modification to machine data or equipment configuration, or to the interconnection site of the Small Generating Facility not agreed to in writing by the CAISO and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.~~

1.3.4.1 Prior to making any modification, the Interconnection Customer must 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, shall evaluate the proposed modifications and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification., in which case eCosts incurred by for both the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 1.3.4, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except those deemed acceptable under SGIP Section 1.3.4 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

1.3.4.2 The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being when invoiced. The CAISO shall coordinate the modification request results with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

\* \* \*

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

\* \* \*

## Appendix T

### Small Generator Interconnection Agreement

\* \* \*

3.4.5 Modification of the Small Generating Facility

Prior to making any modification to the Small Generating Facility, the Interconnection Customer must first request that the CAISO evaluate whether any such proposed modification is a Material Modification and 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 1.3.4 of Appendix S, and such costs shall be included in any CAISO invoice for modification assessment activities. 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. Any change to the Point of Interconnection, except those deemed acceptable under this article of the SGIA or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

\* \* \*

5.3 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 (a) 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 refund of the cost of Network Upgrades in accordance with Article 5.3.1, and/or (b) decline all or a part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 5.3.1.

\* \* \*

## Appendix U

### Standard Large Generator Interconnection Procedures (LGIP)

\* \* \*

4.4.3

Prior to making any modification other than those specifically permitted by LGIP Sections 4.4.1, 4.4.2, and 4.4.5, the Interconnection Customer ~~may~~must 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, 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 5.1, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except those deemed acceptable under LGIP Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

\* \* \*

**4.4.6** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

## **5.2 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 applicable Participating TO 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 successor Participating TO 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 Participating TO 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-Participating TO~~ has tendered a draft LGIA to the Interconnection Customer but the Interconnection Customer has neither executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, the Interconnection Customer must complete negotiations with the applicable Participating TO which has the ownership of the Point of Interconnection.

\* \* \*

## **11.2 Negotiation**

Notwithstanding LGIP Section 11.1, 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 LGIA at any time after the Interconnection Customer executes the Interconnection Facilities Study Agreement. The

applicable Participating TO(s) and CAISO and the Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) calendar days after tender of the final Interconnection Facilities Study report. 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 LGIA pursuant to LGIP Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to LGIP Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within ninety (90) calendar days after issuance of the final Interconnection Facilities Study report fails to request either the filing of the unexecuted LGIA 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 LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to LGIP Section 13.5 within ninety (90) calendar days after issuance of the final Interconnection Facilities 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 LGIA within ~~fifteen-ten (15/10)~~ Business Days after the completion of the negotiation process and receipt of all requested information.

\* \* \*

## Appendix V

### Standard Large Generator Interconnection Agreement

\* \* \*

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.

\* \* \*

11.4 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 (a) 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 refund of the cost of Network Upgrades in accordance with Article 11.4.1, and/or (b) declare all or a part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 11.4.1.

\* \* \*

**Appendix Y GIP**  
**For Interconnection Requests**  
**Generator Interconnection Procedures (GIP)**

\* \* \*

**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 of this GIP, 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 GIP 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 GIP Section 3.5.1 be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under GIP 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 GIP 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.

- (c) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the CAISO by written notice under GIP Section 3.8 at any time more than thirty (30) calendar days after the Results Meeting (or the latest date permitted under this GIP 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. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

#### 6.9.2.2

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 five (5) 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 6.9.2 shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project; (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~~**must** 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 6.9.2, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except for that specified by the CAISO in an Interconnection Study or otherwise allowed under this GIP Section 6.9.2, 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 GIP Section 6.9.2.

**6.9.2.3** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

\* \* \*

## **7.1 Scope Of 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 two Phase I Interconnection Studies. Beginning with Queue Cluster 5, the Phase II Interconnection Study 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, (ii) identify final Reliability

Network Upgrades needed to physically interconnect in order to achieve Commercial Operation status for the Generating Facilities, (iii) assign responsibility for financing the identified final Reliability Network Upgrades, (iv) identify, following coordination with the CAISO's Transmission Planning Process, final Delivery Network Upgrades needed to interconnect those Generating Facilities selecting Full Capacity Deliverability Status, (v) assign responsibility for financing Delivery Network Upgrades needed to interconnect those Generating Facilities selecting Full Capacity Deliverability Status, (vi) identify for each Interconnection Request final Point of Interconnection and Participating TO's Interconnection Facilities, (vii) provide a +/-20% estimate for each Interconnection Request of the final Participating TO's Interconnection Facilities, (viii) optimize in-service timing requirements based on operational studies in order to maximize achievement of the Commercial Operation Dates of the Generating Facilities, and (ix) if it is determined that the Delivery Network Upgrades cannot be completed by the Interconnection Customer's identified Commercial Operation Date, provide that operating procedures necessary to allow the Generating Facility to interconnect as an energy-only resource, on an interim-only basis, will be developed and utilized until the Delivery Network Upgrades for the Generating Facility are completed and placed into service.

With respect to the foregoing items, the 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.

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 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 [CAISO Website](#) or within a Business Practice Manual.

\* \* \*

## 7.6 Accelerated Phase II Interconnection Study Process

The Phase II Interconnection Study shall be completed within one hundred fifty (150) calendar days following the posting of the initial Interconnection Financial Security under [EGIP Section 9](#) where the Interconnection Request meets the following criteria: (i) the Interconnection Request was not grouped with any other Interconnection Requests during the Phase I Interconnection Study or was identified as interconnecting to a point of

available transmission during the Phase I Interconnection Study, and (ii) the Interconnection Customer is able to demonstrate that the general Phase II Interconnection Study timeline under LGIP Section 7.5 is not sufficient to accommodate the Commercial Operation Date of the Large Generating Facility.

In addition to the above criteria, the CAISO may apply to FERC in coordination with the Interconnection Customer for a waiver of the timelines in this LGIP to meet the schedule required by an order, ruling, or regulation of the Governor of the State of California, the CPUC, or the CEC.

\* \* \*

### 9.2.3 Posting Amount for Network Upgrades.

~~First,~~ Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster and ~~or~~ each Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument in an amount equal to 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.

Each ~~the~~ 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 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.

Notwithstanding the foregoing, if the costs of the estimated Network Upgrades are less than the minimum posting amounts set forth above, the posting amount required will be equal to the estimated Network Upgrade amount.

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, as permitted in Section 7.1 of this GIP, 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.

~~The Interconnection Customer shall also post an Interconnection Financial Security.~~

\* \* \*

#### 9.2.4.1 **For Small Generating Facilities.** 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 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 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.

\* \* \*

#### 9.2.5

Consequences for Failure to Post. The failure by an Interconnection Customer to timely post the Interconnection Financial Security required by this ~~L~~GIP Section 9.2 shall result in the Interconnection Request being deemed withdrawn and subject to ~~L~~GIP 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.

\* \* \*

#### 9.4.2.6 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 GIP Section 9.4. All non-refundable portions of the Interconnection Financial Security remitted to the CAISO in accordance with this GIP Section 9.4 shall be treated in accordance with CAISO Tariff Section 37.9.4. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

## 11.2 Negotiation

Notwithstanding GIP Section 11.1, 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 GIP Section 11.1 and request submission of the unexecuted GIA with FERC or initiate Dispute Resolution procedures pursuant to GIP Section 13.5. 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 GIP Section 13.5 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-ten~~ (1510) Business Days after the completion of the negotiation process and receipt of all requested information.

\* \* \*

#### **12.3.2.1 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, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades in accordance with its cost responsibility assigned under GIP Sections 7.3 and 7.4. Such 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.

Instead of direct payments, the Interconnection Customer may elect 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.

#### **12.3.2.2 Repayment of Amounts Advanced Regarding Phased Generating Facilities**

Upon the Commercial Operation Date of each phase of a Phased Generating Facility, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, 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 under GIP Sections 7.3 and 7.4 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 GIP Section 12.3.2.2. 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.

Instead of direct payments, the Interconnection Customer may elect to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with the CAISO Tariff Section 36.11 associated with the Network Upgrades for each phase, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the phase in accordance with the GIA.

\* \* \*

### **13.7 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-Participating TO 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 8**

### **Transition of Existing SGIP Interconnection Requests to the GIP**

\* \* \*

#### **1.2.2 Special Definitions for this GIP Appendix 8**

In this Appendix 8 to the GIP, the following words and expressions shall have the meanings set opposite them:

"SGIP Serial Study Group" shall mean those Interconnection Customers with valid Interconnection Requests submitted pursuant to Appendix S of the CAISO Tariff prior to December 18, 2010 and who have executed System Impact Study or Facilities Study Agreements that provide for the completion of such studies by December 18, 2010.

"SGIP Transition Cluster" shall mean those Interconnection Customers with valid Interconnection Requests submitted pursuant to Appendix S of the CAISO Tariff prior to December 18, 2010 and which have not executed System Impact Study or Facilities Study Agreements that provide for the completion of such studies by December 18, 2010.

#### **2. Transition of Projects in SGIP Serial Study Group**

**2.1** An Interconnection Request deemed to be included in the SGIP Serial Study Group that wishes to be studied as an Energy-Only Deliverability Status Generating Facility shall not be required to conform to the provisions of Appendix Y of the CAISO Tariff. Rather, such Interconnection Requests will continue to be processed per the procedures set forth in Appendix S to the CAISO Tariff, unless they specifically indicate, in writing, within five (5) Business Days from the effective date of this Appendix 8 to the GIP, that they wish to be included in either the SGIP Transition Cluster, studied for Full Capacity Deliverability Status, or, if eligible, studied under the Independent Study Process set forth in Section 4 of Appendix Y.

\* \* \*

**3.4** At the conclusion of the Phase II Interconnection Study for the CAISO's first and second Queue Clusters, each Interconnection Customer remaining in the SGIP Transition Cluster shall receive a Phase II Interconnection Study report, which will indicate each Interconnection Customer's allocated share of costs for Interconnection Facilities and Reliability Network Upgrades. If the Interconnection Customer wishes to continue in the queue, the Interconnection Customer must sign and execute a Small Generator Interconnection Agreement within ninety (90) calendar days of receiving the final report and post the required Interconnection Financial Security as set forth in Section 9.3 of Appendix Y.

\* \* \*

**CAISO TARIFF APPENDIX BB**

**Standard Large Generator Interconnection Agreement**

\* \* \*

**ARTICLE 30. MISCELLANEOUS**

\* \* \*

**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 [Not Used]

Appendix H Interconnection Requirements for an Wind-Asynchronous Generating Plant-Facility

\* \* \*

**Appendix H  
To LGIA**

\* \* \*

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 ~~the~~ high-voltage transmission system.

\* \* \*

**CAISO TARIFF APPENDIX CC**

**Large Generator Interconnection Agreement  
for Interconnection Requests in a Queue Cluster Window**

\* \* \*

**ARTICLE 30. MISCELLANEOUS**

\* \* \*

## **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 Proportional Share of Costs of Network Upgrades for Applicable Project Group
- Appendix H Interconnection Requirements for an ~~Wind-Asynchronous~~ Generating ~~Plant~~ Facility

\* \* \*

## **Appendix DD**

### **Generator Interconnection and Deliverability Allocation Procedures (GIDAP)**

\* \* \*

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\* \* \*

### **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. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

### **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 4415.5 by so notifying the CAISO within two (2) Business Days of the notice of invalidity.

\* \* \*

#### 4.2.1.2

#### **Requirement Set Number Two: for Requests for Independent Study of Behind-the-Meter Capacity Expansion of Generating Facilities**

This Section 4.2.1.2 applies to an Interconnection Request relating to a behind-the-meter capacity expansion where the existing of a 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 the incremental increase in capacity 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 Reliability Network Upgrades for the original Generating Facility have been placed in service. An Interconnection Request for behind-the-meter capacity expansion may be submitted prior to the Commercial Operation Date of the original Generating Facility.
- 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. With the consent of the CAISO and the applicable Participating TO(s), the Interconnection Customer may make the Generating Facilities that will be tied to the expansion breaker a mixture of original and expanded facilities such that the total installed capacity behind the expansion breaker is equal to or greater than the planned amount of behind-the-meter capacity expansion.
- 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.
  - 1) 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 4.2.1.1(i) is less than 100 amperes, the Generating Facility shall pass the short circuit test.

\* \* \*

#### 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 [GIDAP](#). 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.

## 6.6 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 CAISO 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. ~~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.~~

\* \* \*

**6.7.2.2** 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~~must 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification., in which case eCosts incurred by for both the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 6.7.2, and such costs shall be included in any CAISO invoice for modification assessment activities. 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.

**6.7.2.3** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the

actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance within 30 days of being invoiced. The CAISO shall coordinate the modification request -with the Participating TO(s). The Participating TO(s) shall invoice the CAISO for any assessment work within seventy-five (75) calendar days of completion of the assessment, and, within thirty (30) days thereafter, the CAISO shall issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the assessment.

The CAISO will publish cost data regarding modification assessments in accordance with the terms set forth in a Business Practice Manual.

\* \* \*

## 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 14.2.43.2 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. There is no maximum cost responsibility value for 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.

\* \* \*

#### 7.4.1

The CAISO 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~~ [Section 8.9.3](#) 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

\* \* \*

#### 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 ~~in order to achieve Commercial Operation status for the 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.

\* \* \*

## 8.6 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., where the Interconnection Request meets the following criteria: (i) the Interconnection Request was not grouped with any other Interconnection Requests during the Phase I Interconnection Study or was identified as interconnecting to a point of available transmission during the Phase I Interconnection Study, and (ii) the Interconnection Customer is able to demonstrate that the general Phase II Interconnection Study timeline under GIDAP Section 8.5 is not sufficient to accommodate the Commercial Operation Date of the Large Generating Facility.

In addition to the above criteria, the CAISO may apply to FERC in coordination with the Interconnection Customer for a waiver of the timelines in this LGIDAP to meet the schedule required by an order, ruling, or regulation of the Governor of the State of California, the CPUC, or the CEC.

\* \* \*

## 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 8.9.43.
- (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.

This first component is performed for the purpose of determining the amount of TP Deliverability available for allocation to the current queue cluster in accordance with section 8.9.2, and shall not affect the rights and obligations of proposed Generating Facilities in Queue Cluster 4 or earlier with respect to the construction and funding of Network Upgrades identified for such Generating Facilities, or their requested Deliverability Status. Such rights and obligations will continue to be determined pursuant to the GIP and the Generating Facility's GIA.

## 8.9.2

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

If the CAISO determines, under Section 8.9.1 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 CAISO 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 CAISO 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 either (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 CAISO 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.

\* \* \*

#### 8.9.4 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 8.9.42. Parking an Interconnection Request does not confer a preference with respect to any other Interconnection Request with respect to allocation of TP Deliverability.

\* \* \*

## 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 any prior~~ Interconnection Study ~~Cycle~~ under the CAISO Tariff (including a Small Generating Facility studied under the provisions of Appendix S of the CAISO Tariff), and for which all Interconnection Studies have been completed, or which has a 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 any prior~~ 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.

\* \* \*

### 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 or Partial Capacity Deliverability Status to Energy-Only Deliverability Status within five-ten (510) 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 **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 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.

\* \* \*

**11.2.5 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~~**11.2.4.1** or ~~10.2.4~~**11.2.4.2**, then the posting amount required will be equal to the estimated Network Upgrades amount or the Participating TO Interconnection Facilities amount.

\* \* \*

**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.

\* \* \*

**11.3.1.6 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 ~~40~~11.3.2 rather than Section ~~40~~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.~~34~~.1 for Small Generator Interconnection Customers or in Section 11.3.1.~~34~~.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.

\* \* \*

#### 11.4.2.1 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

~~e.~~ \$10,000 per requested and approved megawatt of the Generating Facility Capacity at the time of withdrawal.

\* \* \*

#### 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. In addition, any funds received by the CAISO from a Participating TO, pursuant to a requirement in the Participating TO's wholesale distribution tariff for funds to be distributed by the CAISO, shall be treated in accordance with CAISO Tariff Section 37.9.4.

\* \* \*

#### 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 GIDAP. 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 If the Interconnection Customer requested Full Capacity Deliverability Status or Partial Deliverability Status, then wWithin thirty (30) Calendar Days after the CAISO provides the final-updated Phase II Interconnection Study report (or by an earlier date, if all parties agree), or the Facilities Study report (or System Impact Study report if the Facilities Study is waived), which includes the allocation of TP Deliverability to the Interconnection

Customer, the applicable Participating TO(s) ~~and the CAISO~~ shall tender a draft GIA, together with draft appendices, ~~or earlier if all parties agree.~~ If the Interconnection Customer requested Energy-Only Deliverability Status, then within thirty (30) Calendar Days following the results meeting for the final Phase II Interconnection Study (or by an earlier date, if all parties agree), Facilities Study, or System Impact Study if the Facilities Study is waived, the applicable Participating TO shall tender a draft GIA, together with draft appendices, or earlier if all parties agree. The draft GIA shall be in the form of the FERC-approved form of GIA set forth in CAISO Tariff Appendix ~~T-EE~~ or Appendix ~~CCFF~~, 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 ten (1510)~~ Business Days after the completion of the negotiation process and receipt of all requested information.

\* \* \*

### **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, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, 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, unless the Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, 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.

\* \* \*

### 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 [GIDAP](#). 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.

\* \* \*

## 15.7 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 ~~Participating TO 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 one copies copy~~ of this completed form pursuant to Section 7 of this Appendix 1 below.

1. The undersigned Interconnection Customer submits this request to interconnect its Generating Facility 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 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):
  - 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 Cluster Process only)
  - Energy Only
4. The Interconnection 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;

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 equipment configuration (if more than **1one** type is chosen include **net-nameplate** MW for each);

**Technology**

**Nameplate**

___ 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):

General description of the equipment configuration (e.g. number, size, type, etc):

- d. Proposed In-Service Date (first date transmission is needed to the facility), Trial Operation date and Commercial Operation Date by **month**, **day**, ~~**month**~~, and year and term of service (dates must be sequential); \_\_\_\_\_

Proposed Trial Operation Date: \_\_\_\_\_

Proposed Commercial Operation Date: \_\_\_\_\_

Proposed 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. ThreeOne (13) copies isare required.**

5. Applicable deposit amount made payable to California ISO. Send check to CAISO (see section 7 below for details) along with the:

a Interconnection Request for processing.

b Attachment A (Interconnection Request Generating Facility Data).

6. Evidence of Site Exclusivity as specified in the GIDAP and name(s), address(es) and contact information of site owner(s) (check one):

\_\_\_\_\_ Is attached to this Interconnection Request

\_\_\_\_\_ Deposit in lieu of Site Exclusivity attached, Site Exclusivity will be provided at a later date in accordance with this GIDAP

7. This Interconnection Request shall be submitted to the CAISO representative indicated below:

New Resource Interconnection

California ISO

Attn: Grid Assets

P.O. Box 639014

Folsom, CA 95763-9014

Overnight address:

California ISO

Attn: Grid Assets

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 **onethree** copies of this completed form.

1. Provide ~~two one set of original prints and one reproducible copy~~ (no larger than **3611" x 2417"**) or soft copy on cd/flashdrive 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. Generating Facility Information

- 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: \_\_\_\_\_
- H. Year Manufactured \_\_\_\_\_
- I. 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 (+/- %): \_\_\_\_\_
- O. 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. Synchronous Generator – General Information:

(Please 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. 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.
- I. Rated Hydrogen Cooling Pressure in psig (Steam Units only): \_\_\_\_\_
- 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.

**4. Excitation System Information**

(Please 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 commutator 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): \_\_\_\_\_
- 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?

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**5. Power System Stabilizer Information**

(Please repeat the following for each generator model. All new generators are required to install PSS unless an exemption has been obtained from WECC. Such an exemption can be obtained for units that do not have suitable excitation systems.)

- A. 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)
- D. Please attach a copy of a block diagram of the PSS from the PSS Instruction Manual and the correspondence between dial settings and the time constants or PSS gain.
- E. Other comments regarding the PSS?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**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) 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: \_\_\_\_\_ %

B. Hydro turbines:

- (1) Turbine efficiency at rated load: \_\_\_\_\_ %
- (2) Length of penstock: \_\_\_\_\_ ft
- (3) Average cross-sectional area of the penstock: \_\_\_\_\_ ft<sup>2</sup>
- (4) Typical maximum head (vertical distance from the bottom of the penstock, at the 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: \_\_\_\_\_ ft<sup>3</sup>/sec
- (7) Average energy rate: \_\_\_\_\_ kW-hrs/acre-ft
- (8) Estimated yearly energy production: \_\_\_\_\_ kW-hrs

C. 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?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**7. Induction Generator Data:**

- A. Rated Generator Power Factor at rated load: \_\_\_\_\_
- B. 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 Volts: \_\_\_\_\_
- Field Amperes: \_\_\_\_\_
- Motoring Power (MW): \_\_\_\_\_
- Neutral Grounding Resistor (If Applicable): \_\_\_\_\_
- I22t or K (Heating Time Constant): \_\_\_\_\_
- 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 Vars (No Load): \_\_\_\_\_
- Reactive Power Required In Vars (Full Load): \_\_\_\_\_
- Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on 100 MVA Base

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.

**8. Generator Short Circuit Data**

For each generator model, provide the following reactances expressed in p.u. on the generator base:

- X"1 – positive sequence subtransient reactance: \_\_\_\_\_ p.u.\*\*
- X2 – negative sequence reactance: \_\_\_\_\_ p.u.\*\*
- X0 – zero sequence reactance: \_\_\_\_\_

Generator Grounding (select 1 for each model):

- A. \_\_\_\_\_ Solidly grounded
- B. \_\_\_\_\_ Grounded through an impedance  
(Impedance value in p.u. on generator base. R: \_\_\_\_\_ p.u.  
X: \_\_\_\_\_ p.u.)
- C. \_\_\_\_\_ Ungrounded

**9. Step-Up Transformer Data**

For each step-up transformer, fill out the data form provided in Table 1.

**10. Interconnection Facilities Line Data**

There is no need to provide data for new lines that are to be planned by the Participating TO. However, for transmission lines that are to be planned by the generation developer, please provide the following information:

Nominal Voltage: \_\_\_\_\_ kV  
Line Length: \_\_\_\_\_ miles  
Line termination 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: \_\_\_\_\_ ° 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:

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. For inverter based generating facilities, select the appropriate generator and control models 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. **One copy of this data should be provided on DVD, CD, or USB flash drive media.**

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.

\* \* \*

### Appendix 3

#### **GENERATOR INTERCONNECTION STUDY PROCESS AGREEMENT FOR QUEUE CLUSTERS**

\* \* \*

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 "GIDAP" or the Master Definitions Supplement, Appendix A to the CAISO Tariff, as applicable.

\* \* \*

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 GIDAP. 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 GIDAP.

\* \* \*

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 **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 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".

\* \* \*

**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 6.2 of the GIDAP, and the following assumptions:

\* \* \*

**Appendix B**

\* \* \*

Level of Deliverability: Choose one of the following:

\_\_\_\_\_ Energy Only

\_\_\_\_\_ Full Capacity

\_\_\_\_\_ Partial Capacity for \_\_\_\_\_ MWs

\* \* \*

**Appendix 4**

**AGREEMENT FOR THE ALLOCATION OF RESPONSIBILITIES WITH REGARD TO**

## GENERATOR INTERCONNECTION PROCEDURES AND INTERCONNECTION STUDY AGREEMENTS

\* \* \*

- 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 [GIDAP](#). 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.

\* \* \*

### Appendix 6 GIDAP AGREEMENT FOR INDEPENDENT STUDY PROCESS

\* \* \*

- 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 [GIDAP](#). 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 [GIDAP](#).

\* \* \*

### Appendix EE Large Generator Interconnection Agreement for Interconnection Requests Processed under the Generator Interconnection and Deliverability Allocation Procedures (Appendix CC of the CAISO Tariff)

\* \* \*

- 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 [\(a\) 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, and/or \(b\) decline all or part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 11.4.1.](#)

\* \* \*

### Appendix FF

### Small Generator Interconnection Agreement for Interconnection Requests Processed Under the Generator Interconnection and Deliverability Allocation Procedures

\* \* \*

3.4.5 Modification of the Small Generating Facility

Prior to making any modifications to the Small Generating Facility, the Interconnection Customer must first request that the CAISO evaluate whether such modification is a Material Modification and 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. The CAISO may, at its option, engage the services of the applicable Participating TO to assess the modification. Costs incurred by the Participating TO and CAISO (if any) shall be borne by the party making the request under Section 6.7.2 of Appendix DD, and such costs shall be included in any CAISO invoice for modification assessment activities. 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. Any change to the Point of Interconnection, except those deemed acceptable under this article of the GIDAP SGIA or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

\* \* \*

5.3 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 (a) 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, and/or (b) decline all or a part of a refund of the cost of Network Upgrades entitled to the Interconnection Customer in accordance with Article 5.3.1.

\* \* \*

**Attachment D – Draft final proposal**  
**Interconnection Process Enhancements and Clarifications**  
**California Independent System Operator Corporation**  
**September 30, 2013**



**California ISO**  
Shaping a Renewed Future

# **Interconnection Process Enhancements**

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## **Draft Final Proposal For Topics 6-12**

July 2, 2013

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# Interconnection Process Enhancements

## Draft Final Proposal for Topics 6-12

### 1 Executive summary

The Interconnection Process Enhancements (“IPE”) initiative is the latest in a series of stakeholder processes that the ISO has conducted over the past several years to continuously review and improve its generation interconnection procedures (“GIP”). The scope of the IPE initiative is such that fifteen GIP-related topics of concern to both the ISO and stakeholders are being addressed. From the beginning of this initiative, the ISO anticipated that the pace of development of proposals for each of the fifteen topics may differ and that final proposals on the various topics in this initiative may be completed in stages. More specifically, the ISO anticipated that the development of straw and final proposals on the queue management issues (i.e., topics 6-12) would be developed rather quickly whereas more time would be needed to work with stakeholders and develop straw and final proposals for the other topics.

This paper constitutes the ISO’s draft final proposal for topics 6-12 of the fifteen topics in this initiative. Two papers have thus far been issued in the IPE initiative – a scoping proposal on April 8 and an issue paper on June 3 – and stakeholders provided written comments to the ISO following each paper. Straw proposals on topics 6-12 were offered by the ISO in the June 3 issue paper. Based on written comments received from stakeholders on those straw proposals, the ISO has developed draft final proposals for topics 6-12 and offers these in this paper along with the associated proposed tariff language for each topic<sup>1</sup>. Following publication of this paper and the proposed tariff language, the ISO will invite stakeholder feedback on both through a schedule detailed in this paper. The ISO anticipates presenting its final proposals for topics 6-12 to the ISO Board of Governors at its September meeting.

### 2 Introduction

The ISO launched the Interconnection Process Enhancements (“IPE”) initiative as part of its ongoing efforts to review potential enhancements to the ISO’s generator interconnection procedures (“GIP”). The IPE initiative was launched on April 8, 2013 when the ISO posted a scoping proposal which assembled a comprehensive list of potential topics for consideration and proposed that a subset of these topics comprise the scope of the initiative. Based on stakeholder feedback received following the release of the April 8 scoping proposal, the ISO added a few additional topics to the

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<sup>1</sup> The proposed tariff language is attached as Appendix A.

scope of the IPE initiative and posted an issue paper on June 3 addressing the resulting scope of fifteen topics.

Table 1 provides a listing of these fifteen topics.

<b>Table 1 – Scope of topics in the June 3 issue paper</b>	
<b>Topic No.</b>	<b>Topic Description</b>
1	Future downsizing policy
2	Disconnection of first phase of project for failure of second phase
3	Clarify tariff and GIA provisions related to dividing up GIAs into multiple phases or generating projects
4	Improve the Independent Study Process
5	Improve the Fast Track Process
6	Provide for ability to charge customer for costs for processing a material modification request
7	COD modification provision for SGIP projects
8	Length of time in queue provision for SGIP projects
9	Clarify that PTO and not ISO tenders GIA
10	Timeline for tendering draft interconnection agreements
11	LGIA negotiations timeline
12	Consistency of suspension definition between serial and cluster
13	Clarity regarding timing of transmission cost reimbursement
14	Distribution of forfeited funds
15	Inverter/transformer changes

As explained in both the April 8 scoping proposal and the June 3 issue paper, the ISO anticipated from the beginning of the IPE initiative that the pace of development of proposals for each topic may differ—i.e., proposals for some topics may be developed rather quickly whereas more time may be needed to work with stakeholders and develop proposals for other topics. For example, the ISO expected that the pace of work on the queue management topics (i.e., topics 6-12) would be such to enable the proposals for these topics to go to the ISO Board for approval earlier than the non-queue management topics in this initiative. Consistent with this approach, the June 3 issue paper offered straw proposals for topics 6-12. Based on written stakeholder comments received on June 25, the ISO has developed draft final proposals for topics 6-12 and offers these in this paper. The remaining stakeholder process for topics 6-12 is discussed in section 3 of this paper. The stakeholder process for all other topics in the IPE initiative (i.e., topics 1-5 and 13-15) will be explained in the straw proposal paper on those topics that the ISO is planning to post on July 18 per the schedule included in the June 3 issue paper.

The ISO is also taking this opportunity to announce a GIP dedicated tariff clarification stakeholder process. Due to the number of GIP related tariff amendments in the last year, the ISO has identified the need to clarify and correct the tariff in several respects. These issues were not

identified early enough to be included in the ISO's most recent tariff clarifications filing.<sup>2</sup> The ISO will be publishing the proposed tariff clarifications on Monday, July 15. The ISO will be requesting comments by August 7 on both the IPE topics 6-12 tariff language and the miscellaneous GIP tariff clarifications and will discuss the comments during a stakeholder call on August 14.

### 3 Stakeholder process and next steps

The purpose of this paper is to present the ISO's draft final proposal for the queue management topics in the IPE initiative (i.e., topics 6-12) and the associated proposed tariff language for each topic. Following publication of this paper and the proposed tariff language, the ISO will invite stakeholder feedback on both. The detailed schedule for soliciting this stakeholder feedback is provided in Table 2 below. The ISO anticipates presenting its final proposals for topics 6-12 to the ISO Board of Governors at its September meeting.

Step	Date	Milestone
IPE scoping proposal	April 8	Post scoping proposal
	April 15	Stakeholder web conference
	April 22	Stakeholder comments due
IPE issue paper (served as a straw proposal for Topics 6-12)	June 3	Post issue paper
	June 11	Stakeholder web conference
	June 25	Stakeholder comments due
Draft final proposal for Topics 6-12	July 2	Post draft final proposal for Topics 6-12 (including proposed tariff language as Appendix A)
	July 10 (1:00-2:30)	Stakeholder web conference (on draft final proposal for Topics 6-12)
	July 16	Stakeholder comments due (on draft final proposal for Topics 6-12)
Tariff development	July 15	Post draft tariff language for miscellaneous GIP tariff clarifications
	August 7	Stakeholder comments due (on tariff language associated with the draft final proposal for Topics 6-12 posted on July 2 in Appendix A and tariff language for miscellaneous GIP tariff clarifications)

<sup>2</sup> See ISO documents relating to the April 12, 2013 tariff clarifications filings and FERC orders at: <http://www.caiso.com/Documents/Apr%202012,%202013%20Tariff%20amendment%20-%20tariff%20clarifications%20-%20docket%20no%20ER13-1274-000>.

Step	Date	Milestone
	August 14	Stakeholder web conference (on tariff language associated with the draft final proposal for Topics 6-12 posted on July 2 in Appendix A and tariff language for miscellaneous GIP tariff clarifications)
Board	September 12-13	Board of Governors meeting for IPE Topics 6-12

Thus, according to Table 2, the ISO will hold two stakeholder web conferences—one on July 10 that will focus on the draft final proposal paper itself and another on August 14 that will address both the proposed tariff language associated with the draft final proposal paper (attached as Appendix A) and the tariff language for the miscellaneous GIP tariff clarifications to be posted on July 15. With regard to written stakeholder comments, the ISO is requesting that stakeholders submit their written comments on the draft final proposal by July 16 and their written comments on the tariff language attached as Appendix A by August 7. This is consistent with the ISO’s standard practice of receiving written stakeholder comments on proposal papers after the stakeholder meeting on a proposal paper and receiving written stakeholder comments on proposed tariff amendments prior to the stakeholder meeting on tariff language.

## **4 ISO’s draft final proposal for Topics 6-12**

This section presents the ISO’s draft final proposal for topics 6-12. The associated proposed tariff language is presented in Appendix A.

### **4.1 Provide for ability to charge customer for costs to review material modification requests**

The ISO’s straw proposal on this topic as presented in the June 3, 2013 issue paper was to expand the existing cost recovery mechanisms similar to the re-study mechanism of serial projects in the ISO tariff to provide for cost recovery of modification requests. In addition the ISO proposed that the tariff be amended to allow for the use of existing study funds that have already been deposited, if applicable, if the modification deposit amount has not already been spent for studies, and clarify that, except for modifications explicitly permitted during the study process, all modifications will require a material modification review.

#### **4.1.1 Stakeholder comments**

Comments received on this topic from stakeholders in response to the topic 6 straw proposal in the June 3<sup>rd</sup> issue paper included the following:

**California Public Utilities Commission (CPUC)** - A fixed fee is attractive but probably unworkable (or undesirably high) due to the wide range of possible modification assessments. However, it might be possible to have a predictable fixed fee cap (effectively a deposit cap), combined with sufficient documentation of actual costs as a basis for determining subsequent refunds. Existing study funds could be used for modification assessments to the extent that interconnection customers requesting modification assessments have made study deposits in excess of what is needed to cover their study costs. Any deposit (after subtracting modification assessment costs) should be refunded at the end of the modification assessment. Deposit forfeitures for failing to achieve COD are already addressed in other ways.

**Independent Energy Producers (IEP)** - IEP believes that the cost for processing a modification request should be based on actual costs with a cap/not-to-exceed price, where actual costs are charged against the deposit. IEP is concerned about, but not necessarily opposed to, the use of study funds for two reasons. First, certain interconnecting customers may desire to track their costs independently or may have received internal authorizations for funds to be used for specific purposes. Mixing these uses may not be to their liking. Secondly, it may come to pass that a customer making a material modification request has insufficient funds in their study deposit account which would trigger the need for additional study funds. IEP believes this question may be most equitably addressed by allowing the interconnecting customer to make that decision at the time of their material modification request, wherein they are provided with (a) a not-to-exceed cost for the material modification request and deposit requirement [if different than the NTE cost], and (b) the balance of their existing study funds. From there, the customer should have the choice to use existing funds or start a new fund explicitly for the modification request. Any remaining funds from the modification request deposit should be refunded at the end of the modification assessment.

**Southern California Edison (SCE)** - The costs for modification requests should be a fixed fee based on a reasonable estimate of the actual costs incurred to process such requests, including, but not limited to, the review to ensure the completeness of the requests and the work performed by engineers to determine if there are any material impacts to other generation projects in the queue. A separate deposit should be required for modification assessments and the existing study deposits should not be used. SCE proposes a fixed fee, which will eliminate the administrative burden of deposits and true-ups to actual costs, and refunds.

**Pacific Gas & Electric (PG&E)** - PG&E believes a fixed fee is the most appropriate mechanism to process material modification requests. The fee should be divided between the ISO and the PTO processing the request, with a fixed percentage going to each to defray costs associated with the request.

PG&E is in the process of analyzing estimated resources devoted to material modification requests, and anticipates having enough data to provide a generic PG&E cost estimate associated with

material modification requests. Study funds aren't always available to process these assessments to study funds should not be relied upon. Material modification requests often occur after studies have been completed and Generator Interconnection Agreements are executed, and study funds aren't available for use after the Phase II is complete. While PG&E prefers a fixed fee option, if the ISO adopts cost recovery against a deposit, excess funds should be returned at the time an Generator Interconnection Agreement is amended following a material modification request, or when the request is otherwise approved.

**Large-scale Solar Association (LSA)** - The questions seem to treat this issue as a foregone conclusion, i.e., they assume that charges will be assessed and based on the current charge processes, with the only questions being how the charges are assessed and collected. LSA does not object to reasonable charges for MMA<sup>3</sup> studies. However, LSA has long objected to the lack of certainty and transparency in the current processes and objects strongly to extending those processes to MMA studies without changing them. Charges for current studies are a complete "black box," and those funding them should reasonably expect more information than an after-the-fact bill.

Specifically, LSA seeks no more from the CAISO and PTOs than one would expect from a reasonable consultant study, e.g.:

- Binding study cost estimates (or at least a range), known in advance, and/or cost information for similar past studies; and
- Explicit hourly charges (and after-the-fact total costs) for different functions or labor types, including overhead charges.

In addition, LSA would only support MMA charges in conjunction with identification of project changes that would not be subject to MMAs, including project phasing (see above) and other items identified in Issue #15 below. Moreover, LSA believes that, if charges are assessed for MMA studies, those studies should be conducted in an orderly and transparent process; thus, LSA also supports development of standard MMA study and GIA modification timelines – similar to (but shorter than, of course) those applicable to the regular interconnection-study process – to ensure prompt study results and contract modifications.

This seems reasonable where a project has not already reconciled with the CAISO/PTO for its original study costs, but this should be an option at the IC's discretion. LSA does not believe that it must be one policy applicable to all. LSA sees no justification for the CAISO/PTO to retain any IC funds past the end of the study.

**NRG** - NRG does not support charging interconnection customers for Material Modification Assessments. The costs of such assessments should be paid for out of moneys already paid,

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<sup>3</sup> Material modification assessment.

including forfeited deposit fees. All funds should be return at the end of the modification assessment.

**Six Cities** - The charges for processing a material modification request should be based on actual costs charged against an initial deposit. Interconnection customers should pay for all actual costs incurred to process an interconnection request, including actual costs in excess of the deposit amount. Existing study funds may be used for modification assessments, but, again, the charges for processing a material modification request should be based on actual costs. Thus, if actual costs exceed available existing study funds, then the ISO should charge the interconnection customer for such amounts. Any amounts remaining from deposits to process modification requests should be refunded once the project achieves COD.

**Wellhead** - Actual costs since the study effort and difficulty of the special study will likely not be the same for all projects. Existing study funds are used for modification assessments to the extent there are unspent funds.

**California Wind Energy Association (CalWEA)** - Either proposal is acceptable to CalWEA although we prefer the concept of charging for actual cost incurred. Existing study funds should be used for modification assessments and study deposits should be refunded at the end of that modification assessment.

#### 4.1.2 *ISO draft final proposal*

The proposal for this topic is to expand the existing cost recovery mechanisms in place for re-study of serial projects and apply a similar mechanism to the cost recovery of modification requests. A deposit of \$10,000 would be made to the ISO and then actual costs incurred by the ISO and PTO would be charged to the project's making the modification request. Based on comments from stakeholders, the ISO would propose that the interconnection customer may elect to either use study funds that have already been deposited with the ISO, if such funds are available and have not already been encumbered, or provide a separate deposit. Once each individual modification request is completed, including review for data completeness, engineering assessment, queue management documentation and approvals, and amendment of the interconnection agreement (if the request is approved), the interconnection customer will receive an accounting of the actual costs spent and a refund of any excess funds. The documentation for the work will include the total hours for each activity and total dollars for that activity on a per month basis. In addition the proposal will clarify that, except for modifications explicitly permitted during the study process, all modifications will require a material modification review.

As previously discussed, the ISO wants to provide more transparency into its modification review and process. To that end, within the context of addressing topic 15 in the IPE initiative, the ISO will provide additional detail on its process and the coordination with the PTOs, and commits to develop language that will be added to the GIP and GIDAP BPMs. The discussion will include the

reasoning behind the need to have certain changes approved (i.e. inverters), specific timelines already implemented, and an implementation program that is in the pilot phase that would allow for “block COD” for projects provided all the parties agree and the reliability network upgrades are completed.

## 4.2 Commercial operation date modification provision for small generator projects

The ISO straw proposal as described in the June 3<sup>rd</sup> issue paper was to amend the SGIP to allow a SGIA modification process for small generators generally similar to the modification process for LGIAs. The thought was that just because a project is 20 MW or less, a change to COD, point of interconnection or technology such as inverters should be allowed if there is no impact to other queue projects, and by revising the SGIA, this would allow a consistent application for the ISO and PTOs. In addition, the process should be similar to the large generation modification process already in place.

### 4.2.1 Stakeholder comments

Comments received on this topic from stakeholders in response to the straw proposal for Topic 7 in the June 3<sup>rd</sup> issue paper included the following:

**CPUC** - The availability of modifications for small generators should be similar to what is available for large generators. The treatment of small generators should be similar to the treatment of large generators in this regard. However, COD extension may be of limited value to small generators that participate in procurement programs (and associated standard contracts) requiring a relatively rapid (e.g., 24 months plus 6 months for delay) timeline for coming on line following PPA execution. If at some future time delay of required transmission upgrades beyond the COD were to be used as a contractually recognized basis for a delayed COD, then COD extension in the interconnection process could be more valuable. However, CPUC Staff hope that ways can be found to reduce the risk of delayed transmission upgrades (including identifying helpful developer actions), rather than accommodating such delays via COD extensions.

**IEP** - IEP would agree that small generation projects should be allowed to modify their project during the study process. IEP agrees generally with the spirit of the ISO’s suggested changes to the SGIP to allow for extensions of the COD for no more than 3 years – the intention being to bring this aspect of the SGIP in line with the LGIP, and that such change should not be deemed material.

IEP requests that the ISO confirm that the proposed SGIP changes that may flow from this topic will be made in consideration of the CPUC’s rules governing the Renewable Auction Mechanism (RAM) since those rules govern projects of similar size to the SGIP (up to 20 MW). In Resolution E-4582, May 9, 2013, the CPUC reaffirmed that renewable generation procured under the RAM must reach commercial operation within 30 months of regulatory approval (24 months + one-time 6 month

extension). The words “regulatory approval” are emphasized because the regulatory process is not by its nature predictable and in comparison to the LGIP and proposed SGIP time limits on queue position, could quite easily have a longer “queue life” (effectively from offer date to COD) than the proposed limit on SGIP. IEP would not be supportive of any changes in the length of COD delay that would advantage RAM projects over other SGIP projects.

**LSA** – LSA believes generally that small projects should be subject to the same rules, and afforded the same options, as large projects.

**PG&E** - PG&E believes that changes to the POI should still require the consent of all 3 parties (the PTO, the ISO and the IC). Changes to POI often result in changes to scope of work for the PTO, such as different rights-of-way, land acquisition or permitting requirements for the PTO, even if the electrical configuration remains the same. PG&E therefore wishes to retain the flexibility to evaluate changes to POI on a case-by-case basis. To the extent that modifications are non-material to the study results or to the eventual PTO scope of work, PG&E supports greater flexibility for changes.

PG&E believes material changes other than COD modification are out of scope for this topic. PG&E suggests addressing this through a new track in a future initiative to evaluate various types of material modification requests, and how they are processed. PG&E believes it is acceptable to make small generator COD provisions consistent with large generator provisions.

**SCE** – SCE does not oppose that small generators be afforded a similar mechanism to change their Commercial Operation Date (COD) through the modification process for their projects as a large generator is currently permitted to do, so long as there is no impact to other queue projects. In addition, SCE does not oppose this proposal, provided that it is structured in a manner that: (1) does not transfer any financing or operating risks to the PTO; (2) the change does not impact other queued projects; and (3) there is a benefit such as a reduction in costs or siting for making that change. SCE does not oppose small generators being allowed to modify their project during the study process. SCE does not oppose allowing small generators to extend their COD for three years from the COD in their interconnection request, similar to that which is allowed for large generators given the realities of the length of time in the queue for small generators, among other reasons.

**Six Cities** - As a general matter, the Six Cities do not oppose treating small generators comparably to larger generators. This includes affording small generators the ability to modify their projects on the same or substantially similar terms as are applicable to larger generators.

**CalWEA** –Support the change and in fact, CalWEA contends that even large generators should be allowed to change their POI under the same criteria. This change in POI should also be allowed if the project is willing to mitigate its material impact, if any.

### 4.2.2 *ISO draft final proposal*

The draft final proposal for Topic 7 is to revise Appendix S, SGIP, Appendix T SGIA, and the GIDAP SGIA to reflect the LGIP/LGIA language for modifications in Appendix U, Section 4.4.3.<sup>4</sup> These changes will allow small generators to be treated similar to large generators with respect to project changes. The small generator will have the ability to request changes to COD, technology (inverters, manufacturer, conductor size, etc.), point of interconnection or change of ownership, and option to build standalone network upgrades, as examples. The request will be evaluated against the Material Modification standard and reviewed by the PTO prior to the ISO's written reply to the request.

While the ISO is proposing to allow this change, we do not believe it impacts the RAM program because it is a modification that the interconnection customer could request after the Phase II study results are completed. If the interconnection customer has a power purchase agreement that requires a COD within 30 months, the ISO presumes that such customer would not request a delay in their project. In addition, if during construction others changes need to be made to the project (i.e. inverters, point of interconnection, etc.) a small generator should be allowed to make modifications to meet the CPUC's 30 month timeline. We also believe by allowing small generators to make modifications including extending COD may help projects without a power purchase agreement to remain in the ISO queue longer and compete for additional programs as they arise without having to go through the study process again.

## 4.3 Length of time in queue provision for small generator projects

The ISO's straw proposal for this topic as described in the June 3<sup>rd</sup> issue paper was to add a new section to Appendix S, SGIP to allow 10 years in the queue from the interconnection request date to the in service date for serial projects, and 7 years in queue from the interconnection request date to the commercial operation date for cluster projects.

### 4.3.1 *Stakeholder comments*

Comments received on this topic from stakeholders in response to the straw proposal for Topic 8 in the June 3<sup>rd</sup> issue paper included the following:

**CPUC** – In principle, small generators should have the same time.

**IEP** - In concert with our comments in the prior topic, IEP would view an extension of COD as long as 3 years to potentially be at odds with the timeline the state has envisioned in similarly sized projects via the CPUC's Renewable Auction Mechanism.

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<sup>4</sup> Note: Similar to the discussion in Topic 6, modification assessments for SGIP projects would also provide for cost recovery.

**LSA** – As noted above, LSA believes generally that small projects should be subject to the same rules, and afforded the same options, as large projects. However, the 7-year development timeframe for projects going through the current expedited development processes (Independent Study and Fast Track) should be shortened to reflect their shorter study duration – otherwise, these projects would actually have longer development time limits than other projects. In other words, smaller projects should have the same post-study development timelines as larger projects.

**SCE** - SCE sees no good reason why there should be any difference between small generators and large generators as to length of time in queue. Similar to provisions that disallow suspension for shared network upgrades, an IC of any size should not be allowed to delay cost responsibility for shared network upgrades.

**SunEdison** - SunEdison believes that small projects should be subject to the same rules and similar duration for development timeline as the large projects (with seven years' timeline for development).

**PG&E** - PG&E supports providing small generators with the same amount of time to develop their project as a large generator.

**Six Cities** - As discussed above in connection with Topic 2, the Six Cities do not oppose treating small generators comparably to larger generators. This includes allowing small generators a period of time to develop their projects that is comparable to the period of time that larger generators are allowed to develop their projects.

#### **4.3.2 ISO draft final proposal**

Since the ISO is proposing that small generators be afforded the same opportunities to change their projects as large generators, the draft final proposal for this topic is to add a new section to Appendix S, SGIP to allow small generators to remain in the ISO queue for up to 10 years from their interconnection request date to their in service date for serial projects, and 7 years in queue for the COD of cluster projects.

A change is not required to Appendix DD, GIDAP because Section 3.5.1.4 covers both large generators and small generators with respect to the time allowed in the ISO queue.

### **4.4 Clarify that the Participating Transmission Owner and not the ISO tenders the generator interconnection agreement**

The ISO's straw proposal for this topic as described in the June 3 issue paper was to clarify that the PTO tenders the GIA and not the ISO.

#### 4.4.1 *Stakeholder comments*

Comments received on this topic from stakeholders in response to the straw proposal for Topic 9 in the June 3<sup>rd</sup> issue paper included the following:

**IEP** – IEP agrees that one entity should be responsible for tendering the GIA.

**SCE** - SCE does not oppose the suggested modification to the ISO tariff to properly reflect that the PTO tenders the draft GIA to the IC.

**SunEdison** - This change is acceptable, though SunEdison suggests that LSA encourage CAISO to be proactive in ensuring the PTOs issue GIAs to ICs in a timely fashion. Only by adhering to tariff timelines can projects be moved through the interconnection process at a speed commensurate with the timelines contained in PPAs.

**Pacific Gas & Electric (PG&E)** - PG&E supports this change.

#### 4.4.2 *ISO draft final proposal*

The draft final proposal for this topic is to amend Appendix U, LGIP; Appendix Y, GIP; and Appendix DD, GIDAP GIP to reflect that the Participating TO, not the ISO, will tender draft LGIAs.

### 4.5 **Timeline for tendering draft generator interconnection agreements**

In the June 3<sup>rd</sup> issue paper, the ISO proposed to modify the starting date for the GIA tendering and negotiation process. Specifically, the ISO proposed to modify the trigger to tender the draft GIA 30 calendar days from the interconnection customer's Results Meeting as that term is defined in the GIP procedures.

#### 4.5.1 *Stakeholder comments*

Comments received on this topic from stakeholders in response to the straw proposal for Topic 10 in the June 3<sup>rd</sup> issue paper included the following:

**IEP** - IEP is not concerned with changing the timeline for tendering draft interconnection agreements.

**LSA** - The suggestion to key issuance of the draft GIA to the Phase II Study Results Meeting seems reasonable in most cases. However, developers should have the option to self-prioritize their GIAs, in part, by electing to receive the draft within 30 days after the Phase II Studies. This election could be made after the Phase I Study, at the time when other elections are also made, to: (1) incorporate it into the current procedures; and (2) give the PTOs plenty of notice for which GIA drafts should be issued first.

**SCE** - SCE does not have an issue with the proposed change. To the contrary, SCE supports changing the trigger for tendering of GIAs from the current 30 Calendar Days (CD) from the issuance of the Phase II study reports to the newly proposed 30 CD from the IC Results Meeting.

SCE supports this change for two reasons. First, by making the IC Results Meeting the appropriate trigger, this change will allow changes resulting from the IC Results Meeting to be reflected in the draft GIA issued to the IC, rather than the current process whereby the draft GIA may need to be modified after the Results Meeting. Further, the current 30-day window for tendering a draft GIA after completion of the Phase II studies and the additional ninety days to negotiate a GIA are unrealistic due to the volume of interconnection requests processed at the same time given the cluster process.

**SunEdison** - SunEdison can support this change, but would emphasize that the wait for the GIA draft should be kept as short as possible because reaching the project kickoff meeting as quickly as possible is a critical component of project success.

**Six Cities** - The ISO's straw proposal – namely, to trigger the tendering of the GIA off of the Results Meeting date rather than the date the Interconnection Facilities Study or Phase II Study reports are provided – appears reasonable, and the Six Cities do not oppose the proposal.

**Pacific Gas & Electric (PG&E)** - PG&E supports this proposal.

**CalWEA** - CalWEA agrees with SCE/SDG&E on this point.

#### 4.5.2 *ISO draft final proposal*

The draft final proposal for this issue is to trigger the tendering of the GIA off of the interconnection customers Results Meeting date as that term is defined in the LGIP or GIP procedures versus when the ISO provides the Interconnection Facilities Study report or Phase II Study report. With respect to stakeholder comments that interconnection customers that want to self-prioritize to receive their draft GIA, negotiate and execute on an accelerated timeline, the ISO believes we can implement that request without a tariff change provided all three parties agree to accelerate the schedule. The ISO will work with stakeholders as part of Topic 15 in the IPE initiative to outline a plan that could be implemented through the GIDAP BPM.

#### 4.6 **LGIA negotiations timeline**

The ISO's straw proposal for this topic, as described in the June 3 issue paper, suggested to reword the 120 CD negotiation to include the term "best efforts" and proposed the following language: "The applicable Participating TO(s) and CAISO and the Interconnection Customer shall use best efforts to 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." In addition, the ISO proposed to revise the trigger for tendering of GIAs, then the negotiation timeline should also be revised to trigger off of the results meeting versus the study reports to allow at least the same period for negotiation.

#### 4.6.1 *Stakeholder comments*

Comments received on this topic from stakeholders in response to the straw proposal of Topic 11 in the June 3<sup>rd</sup> issue paper included the following:

**CPUC** - “Best efforts” language is too open-ended. Specification of target timelines would be preferable, recognizing there might be (there must be) reasons for exceeding the target timelines. Extension of the GIA tendering and negotiations timeline should require approval of (therefore be subject to veto by) the developer, providing a means to express interest in proceeding rapidly. This is consistent with CPUC Staff comments under Topic 7 [COD modification for small generators] for regarding the desirability of reducing transmission delays beyond the specified COD, particularly in those situations where interconnection customers “self identify” as needing to proceed rapidly.

**IEP** - IEP understands that historically the timeline for negotiations has surpassed the objective of 120 days stated in the tariff. However, given the existing capabilities for the three parties (PTO, ISO and customer) to negotiate a revised negotiations timeline, IEP does not understand why the ISO considers this an issue worthy of inclusion in this process. IEP agrees with triggering the negotiations off the results meeting and as a result of that additional time afforded by that change we reiterate our question in item 1 above. IEP agrees that the timeframe for providing the final GIA for execution should be changes to 10 BD and the Stakeholder information request sheets must be provided in advance. IEP is not concerned with the ISO’s process of written approval for timeline extensions.

**LSA** – LSA believes that the current more stringent language helps motivate the parties to move the negotiation process forward and opposes relaxing the requirement. In fact, LSA would support further definition of the steps within the 90-day negotiation period, e.g., time limits on turning around drafts. Subject to the same caveat as in Topic #10 above [timeline for tendering draft GIAs], i.e., if the developer elects to have its GIA issued within 30 days of the Phase II Study instead, the negotiation timeline should be keyed to this same trigger. The CAISO’s incorporation of information request sheet submission into the New Resource Implementation Checklist and process should facilitate the earlier submission required to implement this change. LSA is very concerned that the new process described by the CAISO has not resulted in any prioritization on the part of the PTOs.

While LSA appreciates the CAISO’s recognition of the problem, there is no sign that the measures described by the CAISO for its own process – redeploying resources (including management attention and effort) to expedite negotiation of agreements where developers do not agree to time extensions – have been implemented at all by the PTOs. In fact, in LSA members’ experience, the single biggest obstacle in concluding GIAs on a timely basis (aside from unrealistic studies with unreasonable results (e.g., 12-year DNU timelines) or attempted policy reversals (e.g., regarding DTT classification) has been decision-making and turnaround time for drafts by the PTOs.

LSA requests that the CAISO: (1) Allow developers to request their GIA drafts sooner; (2) set time limits for key steps within the 90-day negotiation period; and (3) work with the PTOs to help them incorporate the same kinds of prioritization actions that the CAISO has implemented itself.

**SCE** - SCE agrees with the “best efforts” guiding language for the PTO, ISO and IC to negotiate concerning any disputed provisions of the appendices of the draft GIA rather than maintaining the negotiations timeline as a firm deadline. SCE agrees, in order to maintain the existing, if not extended, intervals between the tendering of the draft GIA and the negotiation of the final GIA, in conjunction with changing the triggering event of the draft GIA off of the Results Meeting, the triggering event of the negotiations timeline should also be the Results Meeting. SCE opposes changing from the current 15-Business Day (BD) period to 10 BD from completion of the negotiation process for providing a final GIA for execution. The volume of interconnection request processed during a given a cluster cycle makes it very difficult, if not impossible, to meet the current 15-BD requirement as PTOs perform extensive due diligence to ensure the completeness and accuracy of the GIA. Truncating the period for providing a final GIA for execution would only serve to ensure that this milestone would not be met with greater frequency. SCE’s opinion is that the current process is working as far as parties agree to extend negotiations of the GIA. It appears the CAISO is overthinking this part. The current process is working well and does not need to be changed.

**SunEdison** - SunEdison supports enforcement of the 90-day negotiation period and believes that more stringent Tariff language is fully essential to complete contract negotiations in a timely manner and hence does not support the best effort language.

**PG&E** - PG&E does not take a position on this question. However, PG&E wishes to note that LSA’s prior written comments on this topic aren’t reflective of PG&E’s written proposal to build in provisions into the study agreement to allow PTOs to provide a-la-carte services to generators. PG&E maintains that providing a mechanism to allow more in-depth a-la-carte E&P style services during IA negotiation could be beneficial to all parties. PG&E would strongly oppose this change. Information request sheets are already provided in advance of finalizing negotiations, and given the volume of IAs PTOs are expected to process, it is important that PTOs have sufficient time to receive all necessary cross-departmental approvals once agreements are finalized. It is unreasonable to reduce this timeframe given the high volume of agreements PTOs are processing. The problem with three-party written agreement as a proxy for prioritization is that it occurs towards the end of the negotiation timeline, rather than upfront. Consequently, it doesn’t allow for appropriate PTO negotiation resource allocation, nor does it provide an upfront view towards timeline and workflow for the queued project negotiations – for PTOs, the ISO or generators.

**CalWEA** - CalWEA proposes that the IC, subject to verification by the CAISO, should be allowed to present the need for a speedy GIA negotiation and be placed in the “fast lane.” Projects whose ICs do not make that case would go into the “slow lane.” If a project in the slow lane later shows a

need to speed up its GIA negotiations, subject to verification by the CAISO, its negotiation process should be moved back into the “fast lane.”

#### 4.6.2 *ISO draft final proposal*

The stakeholders make some valid points with respect to adding “use best efforts to” in the negotiation sections of the ISO tariff. As discussed in the stakeholder process to date, the ISO already has the ability to move the timeline if all of the parties agree. So with only one commenter supporting the change, the ISO is going to withdraw this piece of the proposed change for Topic 12.

With the draft final proposal discussed above that triggers the tendering of the GIA off of the interconnection customers Results Meeting, the ISO’s draft final proposal is that the negotiation period should also be triggered off of the Results Meeting. With respect to the negotiation process timeline, the comments received from stakeholders confused the PTO or IC time and the ISO time. Specifically, once all three parties have agreed that the GIA is final, the ISO is responsible for providing the final GIA to the interconnection customer and PTO for execution. Currently Section 11.2 of the GIP provides “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.” Thus, given that this only impacts the ISO, the draft final proposal is to decrease this period from fifteen (15) business days down to ten (10) business days from completion of the negotiation process provided the interconnection customers agree to provide information request sheets in advance of concluding the negotiation. In addition the ISO proposes to delete the reference to the Participating TO cited in the sentence above.

### 4.7 **Consistency of suspension definition between serial and cluster**

In the June 3<sup>rd</sup> issue paper, the ISO proposed updating the definition of suspension in the ISO’s pro forma LGIA applicable to serial projects (Appendix BB) to make it consistent with the ISO’s cluster and GIDAP LGIA versions by specifying that suspension extends up to 3 years from when the interconnection request was received, and only applies to PTO upgrades (Section 5.16 in LGIA) that do not impact other projects, and does not provide a day-for-day delay of the project.

#### 4.7.1 *Stakeholder comments*

Comments received on this topic from stakeholders in response to the straw proposal for Topic 12 in the June 3<sup>rd</sup> issue paper included the following:

**CPUC** – As stated in the CAISO’s June 3 Issue Paper, the proposed greater restrictions regarding suspension of GIAs for serial queue projects should apply only where the GIA has not already been “substantially negotiated”. “Substantially negotiated” needs to be clarified. CPUC Staff requests clarification and consideration of whether limiting GIA suspension to “up to 3 years from when the interconnection request was received” essentially leaves no meaningful opportunity for GIA

suspension, in that a GIA is unlikely to have been executed before over two years have passed since the interconnection request was received. It is also unclear if the CAISO is proposing to apply similar suspension provisions for small (20 MW and below) generators, since other parts of this initiative are pursuing greater consistency of treatment between large and small generation projects.

**IEP** - As explained by the ISO during the stakeholder call held on June 11, 2013, the ISO's intention with this proposed change is to address a small number (2) of old serial projects that still do not have executed GIAs and whose position as serial projects allows them indefinite life in the queue. According to the ISO's explanation of this issue, and in correction to prior comments by the ISO and stakeholders on this topic, the proposed change would enforce a suspension time limit of 3 years from original COD (not interconnection request). The ISO's intention is to quickly move these projects into a GIA or out of the queue. IEP doesn't believe this issue is best addressed in this forum, however, we would ask the ISO to consider its need to make the proposed rule change if the suspended project(s) is still making its required financial contributions, some of which may mitigate the impact to later queued projects. IEP understands that dated projects impose a burden on the ISO and PTOs with respect to planning and estimated, if not actual, allocations of future deliverability. IEP is not convinced, however, that a post hoc change to the interconnection rules under which these projects entered the queue is justified. IEP would prefer that this issue not be addressed in this forum and rather the ISO work with those two customers, as has no doubt been the case up to this point, to get the projects into contract.

**SCE** – As long as the suspension by a serial project does not materially impact other queued projects, SCE does not oppose permitting serial projects to suspend. A serial project should not be permitted to suspend if doing so would impact the ability for later queue projects to achieve their COD. A serial project should not be permitted to suspend if doing so would impact the ability for later queued projects to achieve their full capacity deliverability status.

**SunEdison** - SunEdison supports LSA's position that more transparency is desirable to fully understand the criteria used for evaluation of suspension requests.

**Six Cities** - Suspension should be permitted only if there is no adverse impact to subsequently queued projects or the suspended project agrees to mitigate any impacts to subsequently queued projects. The Six Cities generally agree with the approach outlined in the ISO's straw proposal for this topic. Specifically, the ISO proposes limitations on the suspension provisions applicable to serial LGIAs to specify that suspension extends up to three years from the COD in the interconnection request and applies to PTO upgrades that do not impact other projects. As stated above, projects should be permitted to suspend only if there is no adverse impact to subsequently queued projects or the suspended project agrees to mitigate any such impacts.

**PG&E** - In the interest of queue management, PG&E supports changing the suspension definition for serial projects to be consistent with the cluster process. This is of concern to PG&E, as a large

number of later queued projects could be impacted. This could put PTOs in the difficult position of being asked by stakeholders to self-fund such upgrades, putting ratepayers and our shareholders at risk. PG&E would strongly oppose scenarios where ratepayers and shareholders must bear additional risk. This is of concern to PG&E, as a large number of later queued projects could be impacted. PG&E urges the CAISO to find alternatives that do not impact later queued projects, such as the review of upgrades with large numbers of queued renewable project dependencies as potential policy driven upgrades in the TPP.

**CalWEA** - CalWEA agrees with the CAISO proposal for dealing with the suspension of serial and clustered projects – allow the suspension but obligate the financing of network upgrades needed by lower-queued projects.

#### 4.7.2 *ISO draft final proposal*

To better understand this issue, the ISO offers the following information in Table 3 using the ISO publically available queue dated June 17, 2013. Table 3 lists several serial projects, the date they entered the queue, the current COD and whether the ISO believes that negotiations are substantially complete – yes or no. If the answer is no, to the extent the project is not withdrawn, the ISO would incorporate in the GIA negotiation that any suspension request cannot impact other queued customers.<sup>5</sup>

Queue Position	Interconnection Request Receive Date	Current On-line Date	Substantially Negotiated N=Change Language
17	3/18/2003	6/11/2010	Y
84	11/22/2005	12/31/2011	Y
92	2/23/2006	7/1/2015	N
94	2/15/2006	12/31/2016	N
97	2/15/2006	12/31/2016	N
138	10/23/2006	3/1/2012	N
153	11/22/2006	12/31/2016	N
219	5/7/2007	6/1/2012	Y
240	7/12/2007	6/30/2014	Y
241	7/12/2007	6/30/2015	Y

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<sup>5</sup> SGIAs are not eligible for suspension.

As demonstrated above in Table 3, there are 10 serial large generation projects that have not execute LGIAs and most have been in the queue for over five years. Of these 10 projects, 4 have not been substantially negotiated and the ISO proposes that the suspension section 5.16 of these entities LGIAs would include language whereby any suspension may not impact network upgrades that are common to multiple generating facilities.

With respect to the ISO's straw proposal that suspension extends up to 3 years from when the interconnection request was received, the CPUC is correct, such language would not be meaningful as all of the interconnection request dates are greater than 3 years from today. Thus the ISO withdraws that portion of its proposal.

IEP raises the concern that if this issue impact only a few projects, "IEP would prefer that this issue not be addressed in this forum and rather the ISO work with those two customers, as has no doubt been the case up to this point, to get the projects into contract". The challenge the ISO has is that we have been trying to work with these customers to execute agreements with little success. Additional, absent a tariff change (which requires a stakeholder process to vet the change) the pro forma agreement already approved by FERC does not include this limitation. Thus absent including this change as Topic 12 to the IPE the ISO could not implement it.

The ISO draft final proposal is to modify Appendix V for amendments to the serial LGIA required in the future, and Appendix BB for LGIAs<sup>6</sup> that have not been substantially negotiated in order to specify that suspension only applies to PTO upgrades that do not impact other projects, and does not provide a day-for-day delay of the project.

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<sup>6</sup> The same text is in the same section in both Appendices.

## Appendix A

### Proposed Draft Tariff Language – IPE Queue Management Topics

The following is proposed draft tariff language, shown in track change format, to implement the proposed IPE changes for the queue management topics 6 through 12. The tariff modifications cover three areas:

- (1) More flexibility for small generators and cost recovery for modification analysis – Appendix S, T, U, Y, DD and FF
  - (a) Allow small generators to propose project modifications. The ability for small generators to modify their projects was modeled after Appendix U, Section 4.4 for serial projects and Appendix Y, Section 6.9.2 for cluster projects. However, language similar to Appendix U, Sections 4.4.1, 4.4.2 and 4.4.5 is not included because all of the obligations in such sections have already past.
  - (b) Allow for Participating TO and ISO to recover costs for project modification analysis. A \$10,000 deposit will be required and the Interconnection Customer will be charge actual costs. The Interconnection Customer may elect to use existing funds, if available, or provide a new deposit.
  - (c) Clarify that interconnection customers inform the ISO in writing of any proposed modifications from the information in the project’s interconnection request subject to ISO approval.
  - (d) Add a length of time in queue for serial small generators.
- (2) Contract negotiation issues – Appendix U, Y and DD
  - (a) Amend trigger for tendering and negotiating the GIA to the interconnection customers results meeting.
  - (b) Delete reference to CAISO from the requirement to tender the agreement.
  - (c) Delete reference to PTO from requirement to provide final GIA for execution and amend the ISO’s timeline to complete such activity to ten business days from fifteen business days.
  - (d) Revise change in ISO operational control section to conform with the PTO tendering the GIA. However no change is made to Appendix U because the section doesn’t exist.
- (3) Suspension – Appendix V and BB
  - (a) Provide that a serial project cannot suspend network upgrades that impact another queued customer.

## **Modification Changes**

Appendix S, Section 1.3.4 should be deleted in its entirety and replaced with the following proposed new sections:

### **1.3.4 Modifications**

The Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The Interconnection Customer shall retain its Queue Position if the modifications are determined not to be Material Modifications pursuant to SGIP Section 1.3.4.1. Notwithstanding the above, 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.

**1.3.4.1** Prior to making any modification, the Interconnection Customer must 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, shall evaluate the proposed modifications and the CAISO shall inform the Interconnection Customer in writing of whether the modifications would constitute a Material Modification. The CAISO may engage the services of the applicable Participating TO to assess the modification, in which case costs for both the Participating TO and CAISO shall be borne by the party making the request under Section 1.3.4, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except those deemed acceptable under SGIP Section 1.3.4 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**1.3.4.2** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Alternatively, the Interconnection Customer may elect to use existing study funds to the extent that the CAISO is still holding at least \$10,000 in study funds that have not already been encumbered. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance when invoiced. The CAISO shall coordinate the modification request results with the Participating TO(s).

Proposed new paragraph added at the end of Appendix S, Section 1.3.3 as follows:

The expected In-Service Date of the new Small Generating Facility shall not exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates that engineering, permitting and construction of the new Small Generating Facility or increase in capacity of the existing Generating Facility will take longer. The In-Service Date may exceed the date the Interconnection Request is received by the CAISO by a period up to ten years, or longer where the Interconnection Customer, the applicable Participating TO and the CAISO agree, such agreement not to be unreasonably withheld.

### **Proposed amendment to article 3.4.5 of Appendix T:**

### 3.4.5 Modification of the Small Generating Facility

Prior to making any modification to the Small Generating Facility, the Interconnection Customer must first request that the CAISO evaluate whether any such proposed modification is a Material Modification and 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. The CAISO may engage the services of the applicable Participating TO in the CAISO's conducting any such modification assessment, in which case costs for both the Participating TO and CAISO shall be borne by the party making the request under Section 1.3.4 of Appendix S, and such costs shall be included in any CAISO invoice for modification assessment activities. 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. Any change to the Point of Interconnection, except those deemed acceptable under this article of the SGIA or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

### **Proposed changes to Appendix U:**

**4.4.3** Prior to making any modification other than those specifically permitted by LGIP Sections 4.4.1, 4.4.2, and 4.4.5, the Interconnection Customer ~~may~~must 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, 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. The CAISO may engage the services of the applicable Participating TO to assess the modification, in which case costs for both the Participating TO and CAISO shall be borne by the party making the request under Section 5.1, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except those deemed acceptable under LGIP Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

### **Propose a new section 4.4.6 to Appendix U:**

**4.4.6** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Alternatively, the Interconnection Customer may elect to use existing study funds to the extent that the CAISO is still holding at least \$10,000 in study funds that have not already been encumbered. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance when invoiced. The CAISO shall coordinate the modification request results with the Participating TO(s).

**Proposed amendment to Section 5.2 of Appendix U, Section 5.2:****5.2 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 applicable Participating TO 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 successor Participating TO 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 Participating TO 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~~ Participating TO has tendered a draft LGIA to the Interconnection Customer but the Interconnection Customer has neither executed the LGIA or requested the filing of an unexecuted LGIA with FERC, unless otherwise provided, the Interconnection Customer must complete negotiations with the applicable Participating TO which has the ownership of the Point of Interconnection.

**Proposed amendment to third paragraph of Section 6.9.2.2 of Appendix Y:**

For any modification other than these, the Interconnection Customer ~~may~~ **must** 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. The CAISO may engage the services of the applicable Participating TO to assess the modification, in which case costs for both the Participating TO and CAISO shall be borne by the party making the request under Section 6.9.2, and such costs shall be included in any CAISO invoice for modification assessment activities. Any change to the Point of Interconnection, except for that specified by the CAISO in an Interconnection Study or otherwise allowed under this GIP Section 6.9.2, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

**Propose a new section 6.9.2.3 to Appendix Y:**

**6.9.2.3** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Alternatively, the Interconnection Customer may elect to use existing study funds to the extent that the CAISO is still holding at least \$10,000 in study funds that have not already been encumbered. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance when invoiced. The CAISO shall coordinate the modification request results with the Participating TO(s).

**Proposed amendment to Section 6.7.2.2 of Appendix DD:**

For any modification other than these, the Interconnection Customer ~~may~~ **must** 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. The CAISO may engage the services of the applicable Participating TO to assess the modification, in which case costs for both the Participating TO and CAISO shall be borne by the party making the request under Section 6.7.2, and such costs shall be included in any CAISO invoice for modification assessment activities. 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.

### **Proposed new section 6.7.2.3 to Appendix DD:**

**6.7.2.3** The Interconnection Customer shall provide the CAISO a \$10,000 deposit for the modification assessment at the time the request is submitted. Alternatively, the Interconnection Customer may elect to use existing study funds to the extent that the CAISO is still holding at least \$10,000 in study funds that have not already been encumbered. Except as provided below, any modification assessment will be concluded, and a response provided to the Interconnection Customer in writing, within forty-five (45) calendar days from the date the CAISO receives all of the following: the Interconnection Customer's written notice to modify the project, technical data required to assess the request and payment of the \$10,000 deposit. If the modification assessment cannot be completed within that time period, the CAISO shall notify the Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. The Interconnection Customer will be responsible for the actual costs incurred by the CAISO and applicable Participating TO(s) in conducting the modification assessment. If the actual costs of the modification assessment are less than the deposit provided by the Interconnection Customer, the Interconnection Customer will be refunded the balance. If the actual costs of the modification assessment are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer shall pay the balance when invoiced. The CAISO shall coordinate the modification request results with the Participating TO(s).

### **Proposed Appendix FF, GIDAP SGIA:**

#### **3.4.5 Modification of the Small Generating Facility**

Prior to making any modifications to the Small Generating Facility, the Interconnection Customer must first request that the CAISO evaluate whether such modification is a Material Modification and 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. The CAISO may engage the services of the applicable Participating TO to assess the modification, in which case such costs shall be borne by the party making the request under Section 6.7.2 of Appendix DD, and such costs shall be included in any CAISO invoice for modification assessment activities. 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. Any change to the Point of Interconnection, except those deemed acceptable under this article of the GIDAP SGIA or so allowed elsewhere, shall constitute a Material Modification. The Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

## **Contract Negotiation Changes**

### **Proposed amendment to Section 11 of Appendix U:**

#### **11.1 Tender**

11.1.1 Within thirty (30) calendar days after the ~~Interconnection Customer has its Results Meeting to discuss the CAISO receives the Interconnection Customer's written comments, or notification of no comments, to the draft~~ Interconnection Facilities Study report, the applicable Participating TO(s) ~~and the CAISO~~ shall tender a draft LGIA, together with draft appendices. The draft LGIA shall be in the form of the FERC approved standard form LGIA set forth in CAISO Tariff Appendix V. 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.

#### **11.2 Negotiation**

Notwithstanding LGIP Section 11.1, 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 LGIA at any time after the Interconnection Customer executes the Interconnection Facilities Study Agreement. The applicable Participating TO(s) and CAISO and the Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) calendar days after tender of the final Interconnection Facilities Study report. 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 LGIA pursuant to LGIP Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to LGIP Section 13.5. If the Interconnection Customer requests termination of the negotiations, but within ninety (90) calendar days after issuance of the final Interconnection Facilities Study report fails to request either the filing of the unexecuted LGIA 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 LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to LGIP Section 13.5 within ninety (90) calendar days after issuance of the final Interconnection Facilities 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 LGIA within ~~ten (10) fifteen (15)~~ Business Days after the completion of the negotiation process and receipt of all requested information.

### **Proposed amendment to Section 11 of Appendix Y:**

#### **11.1 Tender**

11.1.1 Within thirty (30) Calendar Days after the ~~Interconnection Customer has its Results Meeting to discuss the CAISO receives the Interconnection Customer's written comments, or notification of no comments, to 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.

#### **11.2 Negotiation**

Notwithstanding GIP Section 11.1, 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 GIP Section 11.1 and request submission of the unexecuted GIA with FERC or initiate Dispute Resolution procedures pursuant to GIP Section 13.5. 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 GIP Section 13.5 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 LGIA within ~~ten (10) fifteen (15)~~ Business Days after the completion of the negotiation process ~~and receipt of all requested information.~~

### **Proposed amendment to Section 13.7 of Appendix Y:**

#### **13.7 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 Participating TO~~ 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.

### **Proposed amendment to Section 13 of Appendix DD:**

#### **13.1 Tender**

**13.1.1** Within thirty (30) Calendar Days after the ~~Interconnection Customer has its Results Meeting to discuss~~ 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.

#### **13.2 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 LGIA within ten (10) fifteen (15) Business Days after the completion of the negotiation process and receipt of all requested information.

### **Proposed amendment to Section 15.7 of Appendix DD:**

#### **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~~Participating TO 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.

## Suspension

Proposed modification to Appendix V for amendments to the serial LGIA required in the future, and Appendix BB for LGIAs<sup>7</sup> that have not been substantially negotiated:

- 5.16 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. 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 on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three-year 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.

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<sup>7</sup> The same text is in the same section in both Appendices.

**Attachment E – Board memorandum**  
**Interconnection Process Enhancements and Clarifications**  
**California Independent System Operator Corporation**  
**September 30, 2013**

# Memorandum

**To:** ISO Board of Governors

**From:** Keith Casey, Vice President, Market and Infrastructure Development

**Date:** September 5, 2013

**Re:** **Decision on interconnection process enhancements for queue management**

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*This memorandum requires Board action.*

## EXECUTIVE SUMMARY

The state's renewable energy policy goals have resulted in significant development of new generation, including renewable solar and wind projects. With this development and the resulting increase in the number of projects requesting interconnection, identifying ways to more effectively manage the ISO's interconnection queue and efficiently move these projects through the interconnection process has become increasingly critical. To meet this challenge, the ISO established a new internal department with a specific focus on queue management. Through the interconnection process enhancements initiative, this group has worked with stakeholders on seven specific changes that would improve the ISO's ability to administer the generator interconnection queue. The proposed changes are outlined below:

1. Provide for the ability to charge interconnection customers for the ISO's and participating transmission owners' costs associated with assessing whether a project modification request is a material modification. Customers will be responsible for actual costs incurred and a separate deposit will be required from the customer.
2. Allow changes to the commercial operation date and other project modifications for small generator projects similar to those provisions allowed for large generator projects.
3. Align the timeline for small generator projects to be in the queue to the timeline applicable to large generator projects.
4. Clarify that the participating transmission owner is solely responsible for tendering the generator interconnection agreement.
5. Revise the triggering event for tendering the draft generator interconnection agreements to the phase II results meeting so that changes discussed during the meeting can be incorporated in the initial tendered interconnection agreement.

6. Revise the time period for the ISO to finalize the execution copy of the generator interconnection agreement once the negotiations have been completed.
7. Revise the suspension definition in the serial agreements to ensure consistency between serial and cluster projects. This revision would avoid impact to other queued projects by specifying that the suspension period extends up to three years from when the interconnection request was received only applies to participating transmission owner upgrades that does not impact other projects, and does not provide a day-for-day delay of the project.

Management recommends the following motion:

***Moved, that the ISO Board of Governors approves the proposal for queue management changes, as described in the memorandum dated September 5, 2013; and***

***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.***

## **DISCUSSION AND ANALYSIS**

The ISO has dedicated additional resources to administer the ISO interconnection queue over the last 18 months to help ensure that generation projects reach commercial operation on a timely basis. During this period, 29 projects have achieved commercial operation with a total output of 5,400 MW, 72 projects have withdrawn as a result of the ISO's queue management efforts, and 97 projects have withdrawn during the study and contract negotiation process. As of August 15, 2013, 279 projects remain in the ISO queue. The interconnection process enhancements ("IPE") initiative is the latest in a series of stakeholder processes that the ISO has conducted over the past several years to continuously review and improve its generation interconnection procedures. The scope of the IPE initiative consists of 15 generation interconnection procedures-related topics of concern to both the ISO and stakeholders. From the beginning of this initiative, the ISO anticipated that the pace of development of proposals for each of the 15 topics may differ and that final proposals on the various topics in this initiative may be completed in stages. The seven queue management topics within the scope of the IPE initiative are the first being presented to the Board. The remaining eight IPE topics will be presented to the Board at meetings later in 2013 and in early 2014.

Material modification review: Currently, interconnection procedures and agreements allow interconnection customers to modify their projects, provided it is not a material modification. Material Modification is defined as 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. Changes can consist of: project milestone dates including commercial operation date; equipment including inverters, transformers, conductors, and manufacturer; point of ownership; point of

interconnection; and, project phasing. The ISO has processed 80 modification requests in 2011/2012 and 40 to date in 2013.

The ISO proposes to expand the existing cost recovery mechanisms for interconnection customers to bear the costs associated with work the ISO and the transmission owner must perform in connection with re-study and project modification requests. Specifically, the ISO proposes to require an interconnection customer that is requesting a project modification to provide the ISO with a deposit of \$10,000. The interconnection customer would then be responsible for actual costs incurred by the ISO and the participating transmission owner in reviewing the project modification request. Direct reimbursement would allow the ISO and participating transmission owners to dedicate additional resources to this task and thereby aid in expediting the modification request process and should act to discourage non-serious material modification requests.

The ISO will provide to market participants an annual report at an aggregate level of the average costs for the different types and complexities of modifications requested.

Material modification of small generators (20 MW or less): The tariff allows a large generator to propose changes to the commercial operation date and other project parameters by proposing a project modification. However, the small generator interconnection agreement only allows for milestone changes. Although the original basis for this difference was likely based on the assumption that a small generator project would be studied, contracted and achieve commercial operation within a shorter period of time, this has not turned out to be the case. Accordingly, the ISO proposes to extend to small generators the same options that large generators have for project modification proposals. Similar to the discussion above, modification assessments for small generator projects would also be required to compensate the ISO and participating transmission owners for costs incurred for the assessment.

Small generator time in queue: In conjunction with the change to allow small generator projects to propose modifications, the ISO also proposes to incorporate a maximum time in queue similar to large generator projects. The tariff allows 10 years in the queue from the interconnection request date to the in service date for large serial projects, and seven years in queue from the interconnection request date to the commercial operation date for larger cluster projects. The ISO proposes to apply these same time frames to small generators.

Tendering of generator interconnection agreement: Currently the tariff states that the participating transmission owner and the ISO tender the generation interconnection agreement to the customer. The practical reality is that only the participating transmission owner has the necessary cost and schedule information. Accordingly, the ISO proposes that the responsibility to tender the agreement be placed solely with the participating transmission owner.

Event to trigger tender obligation: The ISO proposes to modify the trigger for tendering the generator interconnection agreement, which initiates the negotiation process to

better align with customer study results discussions. Specifically, the ISO proposes to amend the tariff to implement the trigger to tender the draft generator interconnection agreement 30 calendar days from the interconnection customer's results meeting as that term is defined in the generator interconnection procedures rather than the current trigger, which is 30 calendar days from the publishing of the interconnection facilities study report or phase II study report. Making this change will allow the participating transmission owner and ISO to incorporate in the initial agreement draft changes that the customer discusses in the meeting.

Finalizing the execution copy of the generator interconnection agreement: Once all three parties have agreed that the generator interconnection agreement is final and ready for execution, the ISO is responsible for providing the final generator interconnection agreement to the interconnection customer and participating transmission owner for signature. Currently section 11.2 of the generator interconnection procedures provides "The applicable Participating TO(s) and CAISO shall provide to the Interconnection Customer a final generator interconnection agreement within fifteen (15) Business Days after the completion of the negotiation process." This only impacts the ISO, and, as a way to expedite the process, the ISO proposes to decrease this period from 15 business days down to 10 business days from completion of the negotiation process, provided the interconnection customers agree to provide information request sheets in advance of concluding the negotiation. In addition, the ISO proposes to delete the reference to the "Participating TO(s)" in the cited sentence above from section 11.2.

Revise the suspension definition: The ISO proposes updating the definition of suspension in the ISO's pro forma large generator interconnection agreement applicable to serial projects to be consistent with the ISO's cluster and generator interconnection and deliverability allocation procedure large generator interconnection agreement versions by specifying that suspension extends up to three years from when the interconnection request was received, and only applies to participating transmission owner upgrades that do not impact other projects, and does not provide a day-for-day delay of the project. The ISO believes this change is necessary because without this change serial projects that have been in the queue prior to 2010 could have the ability to suspend their project indefinitely thereby potentially affecting other projects that rely on upgrades the suspended project is required to build. Thus the ISO desires to clarify that suspension does not stay the obligation of paying invoices and to clarify that suspension does not apply to network upgrades that impact other queued projects.

## **POSITIONS OF THE PARTIES**

The ISO conducted several rounds of stakeholder interaction on these topics consisting of a scoping proposal, issue paper proposal and draft final proposal where stakeholders were able to provide comments. The ISO modified its proposal for several of the topics in response to comments received from stakeholders. A stakeholder matrix that summarizes the process is provided as Attachment A.

The bulk of the queue management proposals discussed in this memo received broad stakeholder support. The only opposition is with respect to clarifying the suspension language for serial projects. The Independent Energy Producers view this proposal as retroactive ratemaking and is concerned that the proposal changes the contractual construct that those projects were originally afforded. While the ISO understands the concern, the intention was never to have projects in the queue for an extended and indefinite period of time without progress. Moreover, allowing serial projects to suspend or delay upgrades when such suspension could have an impact on other projects in the queue undermines the ISO's ability to administer the queue. Consequently the ISO is only proposing to add the limitation to projects that have not executed their generator interconnection agreement, and projects that require an amendment to their agreement.

With respect to charging for reviewing project modification requests, Southern California Edison would prefer a fixed fee versus actual costs approach because of the ease of administration. While the ISO is not against this concept, the ISO does not have the cost information to support a fixed fee based approach. It may be possible in the future to develop a fixed fee based structure based on cost information generated by accounting for and billing actual costs. It should also be noted that all other study costs are based on actual costs.

In addition, comments received during the stakeholder process indicated that interconnection customers want the opportunity to self-prioritize to receive their draft interconnection agreement, negotiate and execute on an accelerated timeline. The ISO believes it can implement this request without a tariff change provided all three parties agree to accelerate the schedule. The ISO will work with stakeholders as part of the ongoing interconnection process enhancement initiative to outline a plan that could be implemented through the generator interconnection and deliverability allocation procedure business practice manual.

## **CONCLUSION**

Management recommends that the Board approve the queue management changes proposed in this memorandum. These changes are broadly supported by stakeholders and were refined to address many of their comments and concerns. Management believes that these proposed queue management modifications will greatly improve the ISO's ability to administer the queue more efficiently.

**Attachment F – List of Key Dates**

**Interconnection Process Enhancements and Clarifications**

**California Independent System Operator Corporation**

**September 30, 2013**

**List of Key Dates in the Stakeholder Process for this Tariff Amendment**

<b>Date</b>	<b>Event/Due Date</b>
April 8, 2013	ISO issues paper entitled “Interconnection Process Enhancements – Scoping Proposal”
April 22, 2013	ISO hosts stakeholder conference call that includes presentation entitled “Interconnection Process Enhancements Initiative – Scoping Proposal” and discussion of paper issued on April 8
April 30, 2013	Due date for written stakeholder comments on paper issued on April 8
June 3, 2013	ISO issues paper entitled “Interconnection Process Enhancements – Issue Paper”
June 11, 2013	ISO hosts stakeholder conference call that includes presentation entitled “Interconnection Process Enhancements Initiative – Issue Paper” and discussion of paper issued on June 3
June 25, 2013	Due date for written stakeholder comments on paper issued on June 3
July 2, 2013	ISO issues paper entitled “Interconnection Process Enhancements – Draft Final Proposal for Topics 6-12”
July 10, 2013	ISO hosts stakeholder conference call that includes presentation entitled “Interconnection Process Enhancements Initiative – Draft Final Proposal for Topics 6-12” and discussion of paper issued on July 2
July 15, 2013	ISO issues draft tariff revisions
July 19, 2013	Due date for written stakeholder comments on paper issued on July 2
August 7, 2013	Comments due on draft tariff revisions issued on July 15
August 14, 2013	ISO hosts stakeholder conference call that includes discussion of draft tariff language issued on July 15
September 24, 2013	ISO issues revised draft tariff revisions