



California Independent
System Operator Corporation

October 19, 2010

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. ER11-____-000**

**Tariff Amendment to Revise Generator Interconnection
Procedures**

Dear Secretary Bose:

The California Independent System Operator Corporation (“ISO”)¹ is submitting proposed tariff revisions to revise its generator interconnection process in order to harmonize its large and small generation interconnection procedures. One of the key elements of the ISO’s proposal, known as the Generator Interconnection Procedures (“GIP”), is the application of the same cluster study process used for large generators to small generators.² As discussed in detail below, these amendments are necessary to address inefficiencies in the ISO’s current process for interconnecting small generators due to the drastic increase in the volume of small generator interconnection requests and the conflict between the ISO’s study processes for small and large generators. The GIP proposal addresses these issues by adopting, in most cases, an integrated clustered study process for both small and large generators that will provide significant benefits for developers of all sizes. Moreover, the GIP includes several new features that will allow for more streamlined interconnections for smaller projects, as well as those projects of any size that

¹ The ISO (which is sometimes also referred to as the CAISO) submits this filing pursuant to Section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d, and Section 35.13 of the Commission’s regulations, 18 C.F.R. § 35.13, and in compliance with Order No. 714, Electronic Tariff Filings, FERC Stats. & Regs. ¶ 31,276 (2009). Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A of the ISO tariff.

² Small generators are facilities with a capacity of 20 MW or less. Large generators are facilities with a capacity greater than 20 MW.

are electrically independent from other generators in the ISO's interconnection queue, and are in a position to be studied faster than the cluster study process. These amendments will benefit all interconnection customers.

The ISO requests that the Commission accept the GIP, effective as of December 19, 2010, *i.e.*, sixty-one days from the date of this tariff amendment filing.

I. Executive Summary

The primary purpose of the GIP tariff amendment is to address significant delays and backlogs in the ISO's small generator interconnection process that have developed over the past three years because of circumstances unique to the ISO. There are two primary problems faced by the ISO relating to the small generator interconnection process. First, since 2008, the ISO has experienced a large and rapidly increasing volume of small generator interconnection requests, to a level which has made it impossible for the ISO to study these projects serially under the method within the timelines of the current Small Generator Interconnection Procedures ("SGIP"). Second, because the ISO's SGIP utilizes a serial study process while the ISO's Large Generator Interconnection Procedures ("LGIP") uses a cluster study process, there have been significant conflicts between the timelines for how small generators and large generators are studied.

The GIP amendment, a product of extensive stakeholder input, is the best means to resolve these challenges and ensure that the ISO has the fairest and most efficient interconnection process for both small and large generators going forward, consistent with the Commission's Order No. 2003 and Order No. 2006. Moreover, it is particularly important to implement this process at this juncture because of the increasing number of renewable resources that have and will continue to seek interconnection to the ISO's grid, to bring to fruition California's ambitious Renewable Portfolio Standards ("RPS") requirements, which, at 33 percent are the highest in the nation. Given the substantial expansion of renewable resources that will be needed to meet the RPS targets, it is vitally important to optimize the ISO's interconnection procedures to process the large number of requests, for both small and large generators, in the most efficient manner possible. Indeed, there are 160 pending active requests to interconnect small generators, and all but one of these represent renewable projects.

The primary feature of the GIP is an integrated cluster study process, which assigns both small and large generator interconnection requests to annual queue clusters for study in groups of electrically related projects. The protocol for these studies is a streamlined version of the study procedures that the ISO adopted two years ago in the reform of its large generator interconnection process (known as the "GIPR"), which the ISO has implemented with much

success. In the first cluster study cycle under the GIPR, the ISO simultaneously studied one hundred and eight large generator facilities, completing this work three months ahead of the schedule. The ISO has refined the process even further in the GIP proposal, and believes it can improve upon its recent experience through the GIP's integrated cluster study process to eliminate the delays caused by the receipt of a large number of small generator requests in a relatively short span, while resolving the timing conflicts between the small and large generator processes. This integrated process will also provide small generators with other benefits of the GIPR reforms, such as earlier cost certainty, fairer allocation of the costs of transmission upgrades, and the ability to obtain deliverability of a generator's output.

In addition to these improvements and benefits, the GIP proposal includes a number of features that are intended to recognize and accommodate the special circumstances of small generators, consistent with the Commission's goal in Order No. 2006 of providing a streamlined and simplified interconnection process for small generators. These include:

- study deposits based on project size that will generally be less than the average study costs under the ISO's current procedures;
- lower financial security deposit requirements for small generators;
- incorporation of the "fast track" interconnection process currently applicable to small generators and expansion of the threshold for that process from 2 to 5 MW so as to allow more projects to qualify;
- enhanced deliverability options that will allow small generators already in operation, as well as those currently in the study process, to obtain full capacity deliverability status for their facilities through a shorter process and at lower cost than under the ISO's current procedures;
- reduction in the overall cluster study processing timelines from those currently set forth in the ISO's large generator interconnection procedures, resulting in an overall study timeline that is only minimally longer than the best-case small generator interconnection procedure timeline;
- introduction of an independent study process to allow the expedited processing of those requests that are electrically independent of other requests; and
- a simplified interconnection agreement for small generators similar to the pro forma agreement set forth in Order No. 2006.

The GIP is neutral as to non-generation sources such as demand response.³ To the extent that a project such as advanced storage facility or a pumped storage facility is treated as a generation resource, the GIP is flexible enough to accommodate such projects. Accordingly, the GIP process will accommodate such technologies. Moreover, to the extent that the GIP facilitates faster additions of renewable generation on the electrical system, there may be an increased need for firming and shaping resources such as demand response and advanced energy storage, and, thus, the business model for their development could be promoted.

Taken together, the elements of the GIP improve the interconnection process and result in fair and efficient treatment for both large and small generators. The GIP is fully consistent with the Commission's directives in Order No. 2006, as well as the Commission's subsequent decisions approving the integration of the small and large generator interconnection procedures for the Midwest ISO and the Southwest Power Pool. For these reasons, the GIP proposal is just and reasonable, and the Commission should approve it as filed.

II. Need for the GIP Tariff Revisions

The foundation for the ISO's current process for interconnecting small generators to the ISO controlled grid derives from the Commission's Order No. 2006 and its progeny, which adopted standardized procedures and an agreement that would apply to the interconnection of generators up to 20 MW in size.⁴ The ISO's SGIP and accompanying Small Generator Interconnection Agreement ("SGIA"), which incorporate the directives of Order Nos. 2006, *et al.*, have successfully insured that small generator interconnection customers in California have open access to the ISO's transmission system. However, as discussed in the attached testimony of Stephen Ruty, Manager of Grid Assets at the ISO, a set of circumstances specific to the ISO has arisen in the past few years that undermines the efficiency of the ISO's present small generator interconnection process.⁵ The result is a large and increasing backlog of

³ Demand response resources acting as a Proxy Demand Resource through the ISO's Proxy Demand Resource product are not subject to the ISO's interconnection processes.

⁴ *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, FERC Stats. & Regs. ¶ 61,180 (2005) ("Order No. 2006"), *order on reh'g*, Order No. 2006-A, FERC Stats. & Regs. ¶ 31,196 (2005) ("Order No. 2006-A"), *order on reh'g*, Order No. 2006-B, FERC Stats. & Regs. ¶ 31,221 (2006). For ease of reference, Order Nos. 2006, *et seq.* will collectively be referred to hereafter as "Order No. 2006" unless the context requires otherwise.

⁵ See Prepared Direct Testimony of Stephen Ruty, Exh. No. ISO-1, at 3-9. Mr. Ruty's testimony is provided in Attachment C to the instant GIP tariff amendment filing. Hereafter, Mr. Ruty's testimony is cited as the "Ruty Testimony." This tariff amendment also includes the testimony of Robert Sparks, Manager of Regional Transmission (South) at the ISO. Mr. Sparks'

pending small generator interconnection requests, a situation that is contrary to the Commission's intent that small generators be provided with a less costly and faster connection process for small generators, which was the purpose behind the SGIP.⁶

The GIP is designed to overcome the two main, interrelated challenges that the ISO faces in applying its current small generator interconnection process so as to insure that that process successfully realizes the goals of Order No. 2006. The first challenge is that, due in large part to California's RPS targets, there has been a large and rapidly increasing volume of small generators seeking to interconnect to the ISO's transmission grid under the SGIP. Secondly, because the ISO's SGIP and LGIP utilize different study processes (serial versus cluster), timing conflicts have arisen between studies of small generating facilities under the SGIP and studies of large generating facilities under the LGIP.⁷

In combination, these two challenges have resulted in a study backlog for small generator requests that has become unworkably large. As Mr. Rutty explains in his testimony, even assuming a best-case scenario (*i.e.*, assuming no withdrawals, no restudies, and no interactions with ongoing LGIP clusters), the ISO estimates that it would take as long as six to eight years from October 1, 2010 to complete the studies for all small generators currently in the ISO's queue under the ISO's current SGIP process.⁸ This situation is clearly untenable from the perspective of small generator developers, and would prove a serious impediment to the successful implementation of California's RPS goals, given the large amount of renewable generation seeking to interconnect as small generators.

testimony (Exh. No. ISO-2) is provided in Attachment D and is cited to hereafter as the "Sparks Testimony."

⁶ See Order No. 2006 at P 36.

⁷ The SGIP is contained in Appendix S of the ISO tariff, the SGIA is contained in Appendix T of the ISO tariff, the LGIP is contained Attachment Y of the ISO tariff, and the ISO's Large Generator Interconnection Agreement ("LGIA") is contained in Appendix Z of the ISO tariff. The provisions in Appendices Y and Z of the ISO tariff, which the ISO proposes to revise in the instant tariff amendment, concern the LGIP and LGIA for the queue cluster window. They should not be confused with the Large Generator Interconnection Procedures contained in Appendix U of the ISO tariff or the Large Generator Interconnection Agreement contained in Appendix V of the ISO tariff, which do not concern the queue cluster window and which the ISO does not propose to revise in the instant tariff amendment.

⁸ Rutty Testimony at 7.

A. A Large and Increasing Volume of Small Generator Interconnection Requests Has Made It Impossible for the ISO to Efficiently Process Such Requests Under Its Current SGIP

Over the past three years, the ISO has seen a dramatic increase in the number of small generating facilities seeking interconnection to the ISO controlled grid under the SGIP. Prior to 2008, the ISO received fewer than ten small generator interconnection requests annually. Since 2008, however, the ISO has received over 180 small generator interconnection requests. To further illustrate the increasing trend, the ISO received 130 of these requests this year alone. The ISO currently has 160 active small generator requests under the SGIP, proposing to interconnect a total of 2,978 MW.⁹ Only one of these active proposed small generator interconnection requests in the ISO queue is not a renewable project.¹⁰ A primary driver of the increasing number of both large and small interconnection requests is the state of California's RPS, which requires that at least 33 percent of California's retail load be served by renewable energy by 2020.¹¹ As the ISO has recently explained to the Commission, meeting the 33 percent RPS targets requires an aggressive expansion of renewable generation in California.¹² This can be seen by the fact that there is only one non-renewable project among the 160 active SGIP projects in the queue.

Given the 2020 date for meeting the 33 percent RPS targets, the ISO does not expect the increasing rate of small generator interconnection requests to abate any time soon. To the contrary, the ISO anticipates the increase in numbers of small generation applications to continue, for at least the next several years. Moreover, this increase may become greater still, as some large generator developers appear to have been breaking up large generator projects into smaller-component projects for study as multiple small generators, an event that the ISO would expect to see repeated in the future.

This recent influx of large numbers of interconnection requests, all in a relatively short span of time, makes it virtually impossible for the ISO and its participating transmission owners to process the requests in a serial fashion

⁹ *Id.* at 5.

¹⁰ *Id.*

¹¹ See report of the California Public Utilities Commission ("CPUC") entitled *Renewables Portfolio Standard Quarterly Report – Q4 2009*, at 1, 4, available at <http://www.cpuc.ca.gov/NR/rdonlyres/52BFA25E-0D2E-48C0-950C-9C82BFEEF54C/0/FourthQuarter2009RPSLegislativeReportFINAL.pdf>.

¹² See the ISO's Petition for Waiver of Tariff Provisions Regarding Interconnection Financial Security and Request for Ruling Within 45 Days, Docket No. ER10-1656-000, at 2-3 (June 30, 2010).

within the SGIP study timelines while also meeting the timelines for the LGIP. The ISO recognizes that, in many situations, a serial interconnection study process appears to offer advantages for both interconnecting generators and transmission providers. However, the unique situation confronting the ISO with respect to the large and increasing volume of small generator interconnection requests means that using a serial approach as the default study process for small generators is not the most efficient means for realizing the goals of Order No. 2006.

Under the SGIP's serial study process, all proposed generating facility projects are studied one at a time in succession, and the level of analysis to determine transmission upgrades is at the individual generation project level, as planners must evaluate what is the next increment of transmission upgrade triggered by adding each new generation facility. Accordingly, each successive generation project is studied based on a transmission system that assumes the upgrades required by preceding projects are in place. Because each project has its own separate timeline, the studies for a particular project cannot be undertaken until studies for previous electrically related projects are completed. Therefore, as more projects enter the queue, a study backlog develops and becomes increasingly large as more projects enter the queue, because subsequent projects must wait for the results of the studies of any electrically related earlier queued projects to be studied. Due to this fact, and the fact that the SGIP provides interconnection customers with discrete periods in which they can make decisions regarding how and if they wish to proceed in the process, this situation cannot be addressed in any meaningful way by simply devoting more resources to the study process.

This situation is further exacerbated by project withdrawals, which often require the ISO to restudy projects further back in the queue because those projects were originally studied assuming, as part of the base case, the presence of transmission upgrades that were identified as triggered by the interconnecting projects in front of them that withdrew. As the later customer sees that its project now triggers more expensive upgrades, this can lead to a cascading effect of further withdrawals, which in turn creates the need for further restudies.

For these reasons, it is problematic to use the serial study approach when many generation projects require simultaneous study. A serial approach is predicated upon a base case environment in which the transmission system configuration is relatively static. However, because of the large number of both small and large generator interconnection requests it receives, the ISO finds itself in a situation where the transmission system configuration is very dynamic. In this environment, a cluster study approach is more suitable, as it raises the level of analysis for transmission upgrades from the individual project level to the group of electrically related generation projects connecting at relatively the same points in time.

B. The ISO Tariff Contains Different Study Processes for Small and Large Generators, Which Causes Timing Conflicts that Result in Further Delays to Small Generator Interconnections

The second challenge that the GIP is intended to overcome is the fact that the ISO's current large and small interconnection procedures generally run on separate study tracks and do not account for the interdependency between interconnections of small and large generators. As the Commission recognized in Order No. 2006, it is appropriate to treat small and large generators differently in certain respects. However, in a strictly electrical sense, there is no practical difference between small generators and large generators, insofar as both types of projects are seeking to interconnect to the same transmission system. Because transmission upgrades are often "lumpy" in nature, even a relatively small project can trigger the need for upgrades, therefore affecting the interconnection of other generators, both small and large, that are electrically related to it. Therefore, interconnection studies must take into account all generators interconnecting in a particular area on the grid, regardless of whether they are considered "small" or "large" for tariff purposes.

The ISO processes interconnection requests under the SGIP using a serial study process, while interconnection requests under the LGIP are placed into clusters, subdivided by location into study groups, and undergo a two-phased study process (Phase I and Phase II interconnection studies). When there are both small and large projects interconnecting in the same general area of the grid, the timing differences between the LGIP and SGIP processes presents a challenge to determining what generation projects trigger what transmission upgrades in a fair and efficient manner. The primary problem is that, at the time the ISO must conduct studies for projects in the SGIP, base cases are often incomplete, and do not reflect any transmission upgrades that might be required as a result of generation under study in the most recent LGIP queue cluster. The LGIP base cases are updated after every Phase I and Phase II interconnection study, or approximately twice a year. Therefore, if a particular small generation project undergoing SGIP study is electrically related to one or more projects being studied in a large generator cluster, the ISO must make a Hobson's choice between delaying the small generator's study until the LGIP cluster study is completed, and the base case updated, or providing an SGIP study that is based on potentially premature assumptions regarding the outcome of the LGIP cluster study, while conditioning the SGIP study by stating that the study conclusions may need to be revised once the LGIP cluster study is completed.

Neither of these choices is very desirable. On the one hand, waiting to perform a small generator's study until the next LGIP cluster study is completed can interject a significant delay into the small generator's study process, particularly when the small generator's timeline does not happen to neatly

coincide with the LGIP study timeline. Any such study delays will translate into delays in finalizing the small generator's interconnection and achieving commercial operation, which can potentially jeopardize the small generator's ability to obtain or maintain financing and increase the carrying costs for site leases.

On the other hand, moving forward based on assumptions regarding the conclusions of LGIP cluster studies may result in a small generator study that does not provide meaningful information for the small developer to use to evaluate its project when the completed cluster studies show that the study assumptions put into the small generator study were not borne out. The needed revisions introduce delays into the process, and may also expose small generator customers to substantial increases in financial responsibility for network upgrades, if additional upgrades are required as a result of the outcome of the LGIP cluster. Unlike the clustered LGIP process, the SGIP process does not include cost caps on the customer's financing responsibility. Therefore, SGIP interconnection customers can be fully exposed to such increases. As with delays, such increases can jeopardize a small generator's ability to continue in the interconnection process. In sum, as long as the SGIP and LGIP interconnection study processes remain on different tracks, delays and cost uncertainty will result, which will prove particularly deleterious to small generators.

III. Explanation of Proposed Reforms

As Mr. Rutty discusses in his testimony, the GIP proposal will address the challenges facing the ISO's small generator interconnection process by implementing an integrated set of interconnection procedures for both small and large generators based on those successfully implemented by the ISO in its GIPR LGIP reform.¹³ The GIP does not simply place small generator requests into the existing large generator process. It builds on the strong foundation of the ISO's prior GIPR reforms, while also incorporating numerous refinements and improvements, so that both small and large generator projects can be processed in the fairest and most efficient manner possible. The GIP recognizes and accounts for the unique characteristics of small generators and provides them, where appropriate, an expedited path to interconnection. For these reasons, the GIP proposal will fully achieve the goals of Order No. 2006, and should be approved.

By streamlining and improving the process for small generators to interconnect to the ISO, the GIP will expedite the interconnection of renewable projects, many of which meet the definition of small generators. This will significantly assist in the effort to meet California's ambitious RPS goals.

¹³ Rutty Testimony at 9-13.

A. The ISO's GIP Process Will Address the Challenges Currently Faced by the ISO's Small Generator Interconnection Process in a Manner Consistent with Order No. 2006 and Subsequent Commission Precedent

With respect to the problems caused by the volume and timing of interconnection requests, the GIP will solve these problems by grouping small generator interconnection requests, by default, in annual queue clusters and studying electrically related projects using group studies. Under this approach, a group of projects collectively, and not an individual project, triggers the need for transmission upgrades, and the study process is more scalable to account for circumstances in which the group members enlarge or contract during the course of a study cycle. Therefore, delays associated with the need to defer studies of later queued projects in order to complete the studies of electrically related earlier queued projects will be eliminated. Likewise, the GIP will account for the interdependency between small and large generator requests by combining the small and large generator processes into an integrated set of procedures. Under this approach, both small and large generators will submit interconnection requests into annual queue clusters, and projects will be studied together, to the extent they are electrically interrelated. By studying both small and large generators at the same time, the GIP will eliminate the timing conflicts between the SGIP and LGIP processes, thereby streamlining the interconnection of small generators to the ISO controlled grid.

The integration of the two processes will also extend to small generators benefits that the GIPR reforms have already provided to large generators. First, the two-phase interconnection study process will provide small generators with earlier certainty regarding their responsibility for the costs of network upgrades because those costs are capped based on the results of the Phase I study, with any additional costs borne by the applicable Participating TO(s). In addition, the allocation of network upgrades based on each project's contribution to the need for network upgrades will ensure that small generators are not saddled with the financial responsibility for funding large upgrades, which can occur under the current process. Small generators will also benefit from being able to be studied for full capacity deliverability status, which is vital given how important it is for generators to establish deliverability in order to obtain financing and secure power purchase contracts.

As with its earlier reforms aimed at large generator interconnections, the ISO carefully considered the benefits associated with the serial processing of small generator requests, such as the clear delineation of priorities and rights, but ultimately concluded that, given the large and increasing volume of interconnection requests, continuing to use a serial process as a default study procedure would be impossible to efficiently manage, and would result in even greater backlogs and longer delays. The ISO believes that such an outcome

would be unreasonable and inconsistent with the principles of Order No. 2006. Indeed, in Order No. 2006, the Commission reiterated the conclusion it reached in its Order No. 2003 that “clustering is the Commission’s preferred method for conducting interconnection studies, and should be seriously considered by all Transmission Providers.”¹⁴ When compared to the open-ended and backlogged serial SGIP study process, which, because of the factors discussed above, offers neither prompt study results nor cost certainty, the clustered study proposal embodied in the GIP is just and reasonable and in accordance with the principles articulated by the Commission in Order No. 2006.

The ISO’s integration of its small and large generator interconnection processes is also consistent with previous Commission precedent. Specifically, two other independent system operators and regional transmission organizations, the Midwest Independent Transmission System Operator, Inc. (“Midwest ISO”) and the Southwest Power Pool, Inc. (“SPP”), have obtained Commission approval to combine their interconnection procedures regarding small generators and large generators into a single set of generator interconnection procedures. In approving these tariff changes, the Commission implicitly found that an RTO or ISO’s use of a combined set of interconnection procedures is consistent with Order No. 2006. The Midwest ISO and SPP explained in their respective filings that combining their interconnection procedures would increase the efficiency of the interconnection process and enhance the uniformity of treatment between small and large generators while still recognizing important differences between different sizes of generators.¹⁵ For the reasons explained in this transmittal letter and in the testimony of Messrs. Ritty and Sparks, the Commission should likewise permit the ISO to implement its own combined Generator Interconnection Procedures.

B. The GIP Includes a Number of Features that Account for the Special Needs of Small Generators

In addition to the features discussed above, the ISO is proposing a number of improvements and additions to its current LGIP process that recognize

¹⁴ Order No. 2006 at P 181 (citing *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146, at P 155 (2003) (“Order No. 2003”)).

¹⁵ Midwest ISO Electric Tariff Filing Regarding Interconnection Queuing Practices, Docket No. ER08-1169-000 (June 26, 2008), at 21-23; *Midwest Independent Transmission System Operator, Inc.*, 124 FERC ¶ 61,183, at P 17(5) and Ordering Paragraph (A) (2008) (order conditionally approving Midwest ISO tariff amendment); SPP Submission of Revisions to Open Access Transmission Tariff to Incorporate Interconnection Procedures for Small Generators Into Attachment V, Docket No. ER10-681-000 (Jan. 29, 2010); *Southwest Power Pool, Inc.*, Commission Letter Order (Docket No. ER10-681-000) (Mar. 26, 2010) (order approving SPP tariff amendment).

the different needs of small generators, and, consistent with the goals of Order No. 2006, provide small generators with a simplified and accelerated path to interconnection.¹⁶ First, the GIP will make the ISO's current interconnection process more efficient by reducing the overall cluster study processing timelines from those currently set forth in the LGIP, resulting in an overall study timeline that is only minimally longer than the best-case SGIP timeline. In this regard, the GIP will increase by only a few months the tariff timeline for small generation facility applicants to complete the interconnection study process. In return, such applicants will receive a good-faith, capped estimate of their financial responsibility as soon as, and perhaps sooner than, they would under the serial SGIP process.

The GIP will streamline the interconnection process in other respects as well. The GIP includes study deposits based on project size that will generally be less than the average study costs under the ISO's Commission-approved SGIP, and includes lower financial security deposit requirements for small generators. Further, the GIP introduces enhanced deliverability options that will allow small generators that are already interconnected, as well as those currently in the SGIP study process, to obtain full capacity deliverability status for their facilities through a shorter process and at lower cost than under the ISO's current procedures.

The GIP also incorporates simplified and accelerated procedures included in the SGIP that are applicable to two types of small generators that have minimal impact on the transmission system: (1) a "Fast Track Process" that uses technical screens to evaluate a small generating facility no larger than a specified size (2 MW under Order No. 2006) and (2) a "10 kW inverter process" that uses the same technical screens to evaluate a certified inverter-based small generating facility no larger than 10 kW.¹⁷ The ISO is proposing to expand the Fast Track Process so that it applies to projects that are 5 MW or smaller. This will allow more projects to qualify under the streamlined Fast Track Process, while at the same time ensuring system safety and reliability. In addition, the GIP introduces an independent study process to allow the expedited processing of those requests that are electrically independent of other requests in the ISO's interconnection queue. This process will particularly benefit small generators because the proposed criteria for inclusion in this process center on accommodating those projects seeking earlier commercial operation dates that have a minimal impact on the grid.

¹⁶ Order No. 2006 at P 36.

¹⁷ See *id.*

Finally, the ISO is proposing to retain its separate Small Generator Interconnection Agreement. This will provide small generators with a simplified set of terms necessary to achieve interconnection relative to large generators.

In sum, the ISO's proposed GIP approach is consistent with and will further the purposes of Order No. 2006 even in light of the changed circumstances that have developed in California.

IV. Proposed Tariff Changes

A. Overview of GIP Tariff Changes

The overarching purpose of this GIP tariff amendment is to incorporate into Appendix Y of the ISO tariff – which currently contains the LGIP – a set of interconnection rules applicable to both small generating facilities and large generating facilities, resulting in the fairest and most efficient interconnection process for all generators. The GIP tariff amendment will also revise Appendix Y to include, in addition to the existing generator cluster study process, two alternative study processes: an “Independent Study Process” and a “Fast Track Process.” Further, the GIP tariff amendment will revise the provisions in Appendix Y regarding queue cluster times and other aspects of the interconnection request and study processes, as well as the provisions regarding interconnection financial security. In addition, the GIP tariff amendment will add to Appendix Y new deliverability assessment options and also provisions to facilitate the transition of existing SGIP interconnection requests to the GIP. The GIP tariff amendment will also revise the SGIA contained in Appendix T of the ISO tariff and the LGIA contained in Appendix Z of the ISO tariff to include changes to conform them to the GIA, and will revise the SGIA to make conforming changes pursuant to a recent notification from the Western Electricity Coordinating Council of its intent to terminate certain agreements with the ISO. Lastly, the GIP tariff amendment will make various conforming and miscellaneous revisions to the ISO tariff to align them with the GIP and to improve overall process efficiency. Messrs. Rutty and Sparks address these various tariff changes in their testimony, as indicated in the discussion below regarding the tariff changes.

As explained below, all of the modifications to Appendix Y proposed herein are either imported directly from the ISO's existing, Commission-approved SGIP and SGIA or are justified based on the specific circumstances facing the ISO. Therefore, the ISO's GIP proposal meets the Commission's “independent entity variation” standard for modifications to its pro forma interconnection procedures and agreements.¹⁸

¹⁸ *Id.* at PP 544, 549. The independent entity variations standard is “a balanced approach that recognizes that an RTO [regional transmission organization] or ISO [independent system operator] has different operating characteristics depending on its size and location and is less

B. Application of GIP Provisions to Both Small and Large Generating Facilities

The primary modification effected by the GIP tariff amendment consists of processing both small and large generator requests pursuant to one set of integrated procedures, under which the default option for all generators will involve inclusion in clustered studies under a modified version of the procedures implemented by the ISO's earlier GIPR Amendment. This involves submitting interconnection requests during one of two annual cluster application windows, grouping and study of projects based on their electrical relation, and determination of upgrades pursuant to a two-phase study approach.

Pursuant to the GIP study process, small generators will benefit from having better and earlier certainty regarding their responsibility for the costs of network upgrades. Under the integrated process, both small and large generators will receive the results of the Phase I interconnection study less than 140 days after commencement of that study. As with the ISO's current LGIP, the results of the Phase I study will act as a cap on customers' liability for funding any network upgrade costs, so that any increase in upgrade costs determined after the completion of the Phase I study will not be allocated to interconnection customers, but will be borne by the applicable participating transmission owner.¹⁹

Additionally, the integration of small and large generator study processes will ensure that the costs of network upgrades are allocated proportionally and equitably, based on each project's contribution to the need for network upgrades. Because of the "lumpy" nature of transmission upgrades, even a relatively small generation project can trigger substantial upgrades, presenting the small generator with funding obligations that can deter these projects from continuing with their interconnection requests. Under the integrated approach, upgrade costs will be shared pro rata among all small and large generators within a study group, with the allocation being based on each generator's requested level of deliverability and project size. In short, small generators will have more certainty as to their exposure to network upgrade costs, and assurance that such costs will be allocated fairly based on each project's contribution to the need for such upgrades.²⁰

likely to act in an unduly discriminatory manner than a Transmission Provider that is a market participant. The RTO or ISO shall therefore have greater flexibility to customize its interconnection procedures and agreements to fit regional needs." Order No. 2003 at P 827.

¹⁹ Rutty Testimony at 15-16.

²⁰ *Id.* at 16.

C. The Independent Study Process and the Fast Track Process

The GIP tariff amendment adds two alternative interconnection study processes to the existing cluster study process set forth in the LGIP. The two new study processes are the Independent Study Process, which will be set forth in Section 4 of the GIP, and the Fast Track Process, which will be set forth in Section 5 of the GIP. The GIP tariff amendment also adds the new defined terms “Independent Study Process” and “Fast Track Process” to the GIP. Further, the GIP tariff amendment adds language to various provisions of the GIP to distinguish among the existing generator cluster study process, the Independent Study Process, and the Fast Track Process.

1. The Independent Study Process

In order to make the interconnection study process more efficient, the ISO and stakeholders determined that they should add to the GIP a study process that would apply to generating facilities that can be studied and approved for interconnection independent of the ISO’s other study processes. The Independent Study Process will permit such generating facilities to be studied outside of the cluster process, which will benefit those generating facilities by allowing them to be studied on an individual and expedited basis, thereby allowing them to achieve a commercial operation date in advance of that which would be possible under the cluster process. This will prove particularly beneficial to small generators that are effectively independent from other generators in the queue by virtue of their electrical remoteness, or because of their minor-to-nonexistent impact on the grid due to their small size, and will provide them with a path to a faster interconnection. The Independent Study Process will use a serial study approach that is similar to that contained in the current SGIP. The Independent Study Process will also improve the overall efficiency of the GIP process because it will exempt projects that can be studied on their own from having to be included in the Phase I and Phase II interconnection studies for clustered projects, which have a longer study timeline.²¹

Pursuant to the Independent Study Process, the ISO, in coordination with the applicable participating transmission owners, will study interconnection requests eligible for treatment under the Independent Study Process independently from other interconnection requests. In order to be processed under the Independent Study Process, an interconnection request must meet certain eligibility criteria specified in the GIP tariff amendment.²² Specifically, the interconnection customer must provide, along with its interconnection request, an

²¹ *Id.* at 17-18.

²² See GIP Sections 4 and 4.1.

objective demonstration that inclusion in a “Queue Cluster” will not accommodate the desired commercial operation date for the generating facility.²³ As part of the required eligibility demonstration, the interconnection customer must show that the desired commercial operation date is physically and commercially achievable pursuant to a demonstration of at least two of three criteria set forth in the GIP tariff amendment.²⁴ Also, the interconnection customer must demonstrate site exclusivity.²⁵ In addition, the proposed generating facility must be electrically independent of interconnection requests included in an existing queue cluster and electrically independent of any other generating facility that is currently being studied under an earlier-queued Independent Study Process interconnection request.²⁶ Limiting eligibility for the Independent Study Process to those customers who can demonstrate a commercial need for an earlier commercial operation date will promote the overall viability of this process because the ISO will be able to focus its resources on studying only those generators that have a legitimate commercial need to be studied independently. This will ensure that the ISO can meet the expedited timelines set forth in the Independent Study Process.²⁷

In order to be considered electrically independent of other requests, each interconnection request submitted under the Independent Study Process must pass both a flow impact test and a short circuit test set forth in the GIP. These tests, including a hypothetical example of how the flow impact test will be applied, are discussed at length in Mr. Sparks’ testimony.²⁸ As Mr. Sparks explains, the flow impact and short circuit tests were developed by the ISO and stakeholders to determine objectively whether the electrical consequences for nearby transmission facilities of interconnecting the proposed generating facility are expected to be sufficiently small that the generating facility can accurately be described as electrically independent from other projects already being studied by the ISO. Although in many cases the determination of whether a generator is electrically independent of other projects being studied in the interconnection queue can be determined simply by inspection and the application of engineering

²³ GIP Section 4.1.1. Queue Cluster is a new defined term added in the GIP tariff amendment to Appendix A of the ISO tariff. A Queue Cluster is defined as a set of interconnection requests processed pursuant to the GIP other than pursuant to the Fast Track Process or the Independent Study Process

²⁴ GIP Section 4.1.1.

²⁵ GIP Section 4.1.2. Similarly, under Section 1.3.5 of the current SGIP, the interconnection customer must demonstrate site control.

²⁶ GIP Section 4.1.3.

²⁷ Rutty Testimony at 19-20.

²⁸ Sparks Testimony at 3-12.

judgment, such determinations are not always so clear, particularly when large projects are involved. Therefore, the ISO, in conjunction with its stakeholders, determined that customers would be best served by an objective test as to the criteria for determining those projects that would have minimal or no impact on the interconnection of other projects in the queue.²⁹ The available power flow and short circuit base cases that are being used for the most recent queue cluster will be used as the starting base cases for these tests.³⁰

Pursuant to the flow impact test, the ISO, in coordination with the applicable participating transmission owner, will identify the transmission facility closest, in terms of electrical distance, to the proposed point of interconnection of the generating facility being tested that will be electrically impacted, either as a result of network upgrades identified or reasonably expected to be needed by generating facilities currently being studied in a queue cluster, or as a result of network upgrades identified or reasonably expected to be needed by earlier-queued projects currently being studied through the Independent Study Process. If the current Queue Cluster Studies or earlier-queued Independent Study Process studies have not yet determined which transmission facilities electrically impacted by the generating facility require network upgrades, and the ISO cannot reasonably anticipate whether such transmission facilities will require network upgrades from any other data, then the ISO will wait to conduct the independence analysis until sufficient information exists in order to make this determination.³¹

The next step in the flow impact test is that the incremental power flow on the closest transmission facility that is caused by the generating facility being tested will be divided by the lesser of the generating facility's size or the transmission facility capacity. If the result is five percent or less, the generating facility will pass the flow impact test. If the generating facility being tested is tested against the nearest transmission facility and that transmission facility has been impacted by a cluster that required an upgrade as the result of a contingency, then that contingency will be used when applying the flow impact test.³²

²⁹ *Id.* at 4-5. As Mr. Sparks explains in further detail, the ISO sampled 32 SGIP projects from the current interconnection queue and tested those projects individually to determine how many of them would pass the flow impact and short circuit tests. The ISO found that approximately 25 percent of the projects would pass both tests. *Id.* at 11-12.

³⁰ GIP Section 4.2.

³¹ GIP Section 4.2.1(i).

³² GIP Section 4.2.1(ii)

If the generating facility being tested under the flow impact test is reasonably expected to impact transmission facilities that were identified when testing one or more earlier-queued generating facilities currently being studied through the Independent Study Process, then an additional aggregate power flow test will be performed on those earlier-identified transmission facilities. The aggregate power flow test will require that the aggregated power flow of the generating facility being tested, plus the flow of all earlier-queued generating facilities currently being studied under the Independent Study Process that were tested against the transmission facilities described above, must be five percent or less of the transmission facility's capacity. However, even if the aggregate power flow on any transmission facility tested pursuant to these provisions is greater than five percent of the transmission facility's capacity but the incremental power flow as a result of the generating facility being tested is one percent or less of the transmission facility's capacity, the generating facility will pass the test. If the generating facility being tested is tested against the nearest transmission facility and that transmission facility has been impacted by a cluster that required an upgrade as a result of a contingency, then that contingency will be used when applying the flow impact test. The generating facility being tested must pass both this aggregate power flow test as well as the incremental power flow test, in no particular order.³³

The short circuit test provides that, if the short circuit contribution from the generating facility being tested at the closest transmission facility described under the flow impact test is less than 100 amperes, the generating facility will pass the short circuit test.³⁴

If a proposed generating facility passes both tests, the ISO, the affected participating transmission owner, any affected system operator, and the interconnection customer will take part in a scoping meeting to discuss the interconnection request and review existing studies relevant to the interconnection request, unless the ISO, the participating transmission owner, and interconnection customer mutually agree to omit the scoping meeting. No later than five business days after the scoping meeting (or agreement to forego the meeting), the ISO will provide the interconnection customer with an Independent Study Process Study Agreement, a pro forma version of which will be included in new Appendix 6 to the GIP. If the interconnection customer executes the Independent Study Process Study Agreement, the generating facility will be studied under a process that is very similar to the process in the current SGIP, including a system impact study and (if necessary) a facilities study.³⁵ The Independent Study Process Study Agreement is similar to the

³³ GIP Section 4.2.1(iii).

³⁴ GIP Section 4.2.2.

³⁵ GIP Sections 4.3-4.5.

existing Large Generator Interconnection Study Process Agreement in Appendix 3 of the LGIP. As part of the GIP tariff amendment, the ISO also proposes to modify Appendix 3 to re-title the agreement contained in it as the Generator Interconnection Study Process Agreement for Queue Clusters, and to make minor, non-substantive changes.

Generators interconnecting under the Independent Study Process will only be studied as energy-only. If a generator studied under the Independent Study Process wishes to obtain full capacity deliverability status, the GIP provides that such generators will have a deliverability assessment performed as part of the next scheduled Phase I and Phase II interconnection studies for Queue Clusters. If the deliverability assessment identifies any delivery network upgrades that are triggered by the interconnection request, the interconnection customer will be responsible to pay its proportionate share of the costs of those upgrades pursuant to the GIP. If the generating facility achieves its commercial operation date before the deliverability assessment is completed and any necessary delivery network upgrades are in service, the proposed generating facility will be treated as an energy-only deliverability status proposed generating facility until such delivery network upgrades are in service.³⁶ This process provides an appropriate balance between allowing generators the maximum amount of flexibility with respect to obtaining an expedited interconnection and preserving the efficiency and integrity of the overall interconnection process. Limiting the Independent Study Process to energy-only interconnections is appropriate because a full capacity deliverability assessment involves a much more comprehensive study of a facility's impact on the transmission system, and one that is appropriately done in conjunction with other generators applying for interconnection during the same time period.³⁷

Further, the GIP tariff amendment specifies that extensions of the commercial operation date for interconnection requests under the Independent Study Process will not be granted except for circumstances beyond the control of the interconnection customer.³⁸

2. The Fast Track Process

The ISO and stakeholders determined that they should make the interconnection study process under the GIP more efficient by including in the GIP a modified version of the existing, Commission-approved Fast Track

³⁶ GIP Section 4.6.

³⁷ Rutty Testimony at 20.

³⁸ GIP Section 4.7.

Process contained in Section 2 of the SGIP.³⁹ The Fast Track Process will benefit interconnection customers with such proposed small generating facilities by permitting them to interconnect to the ISO controlled grid more quickly and through a more streamlined process than would be possible under the standard interconnection study process.⁴⁰

Pursuant to the Fast Track Process under the GIP tariff amendment, the interconnection customer must pay a non-refundable processing fee of \$500 and a study deposit not to exceed \$1,000, which are the same fees set forth in the SGIP (though the SGIP phrases the required study deposit amount as “not to exceed” \$1,000). The proposed small generating facility must also meet the codes, standards, and certification requirements of Appendices 9 and 10 of the GIP, which are the same as the codes, standards, and certification requirements set forth in Attachments 3 and 4 of the SGIP.⁴¹

Pursuant to both the SGIP and the GIP, the applicable participating transmission owner will perform an initial review of the proposed small generating facility to determine if it passes specified screens and thus is eligible for interconnection under the Fast Track Process.⁴² If the proposed interconnection passes the Fast Track Process screens, and no upgrades are reasonably anticipated, the interconnection request will be approved and the participating transmission owner will provide the interconnection customer with an interconnection agreement for execution.⁴³ If the proposed interconnection fails the screens and no upgrades are reasonably anticipated, but the CAISO and participating transmission owner determine that the small generating facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards under these procedures, the participating transmission owner will provide the interconnection customer with an interconnection agreement for execution.⁴⁴ If the proposed interconnection passes the screens and upgrades are reasonably anticipated, the ISO and participating transmission owner will provide the interconnection customer with the opportunity to attend a customer options meeting.⁴⁵

³⁹ A document showing the Fast Track Process contained in the GIP blacklined against the Fast Track Process currently contained in the ISO's SGIP is included with this filing as Attachment F.

⁴⁰ Ruttly Testimony at 21.

⁴¹ GIP Section 5.1.

⁴² GIP Sections 5.2-5.3.1.

⁴³ GIP Section 5.3.2.

⁴⁴ GIP Section 5.3.3.

⁴⁵ GIP Section 5.3.4. The customer options meeting is discussed further below.

There are two primary differences between the Fast Track Process under the GIP tariff amendment and the Fast Track Process under the SGIP. The first primary difference is that the SGIP Fast Track Process is available only to proposed small generating facilities that are 2 MW or less in size, whereas the Fast Track Process under the GIP tariff amendment is available to proposed small generating facilities that are 5 MW or less in size.⁴⁶ In practice, the ISO has not received any interconnection requests under the Fast Track Process set forth in the SGIP. Therefore, the ISO decided that it would be prudent to review the Fast Track Process, in conjunction with the GIP development process, to determine whether the 2 MW threshold could be increased consistent with the purpose behind the Fast Track Process, so as to make it a more viable option for small generators.⁴⁷ The ISO included the 2 MW size limit for the Fast Track Process in the SGIP because that was the size limit set forth in the Commission's Order No. 2006. In Order No. 2006, the Commission explained that it was "retaining the proposed 2 MW threshold for certified generators as a critical eligibility criterion for using the screens" because "[i]t helps ensure the safety and reliability of the Transmission Provider's electric system."⁴⁸ However, the proposed 5 MW threshold under the GIP tariff amendment will also be consistent with ensuring the safety and reliability of the transmission provider's electric system, *i.e.*, the ISO controlled grid.

From a transmission engineering perspective, a 5 MW generating facility is relatively small and generally would cause no greater impact than a 2 MW generator, such that including 5 MW facilities in the Fast Track Process will not jeopardize the safety and reliability of the ISO controlled grid. However, it would not be feasible to allow generating facilities larger than 5 MW to participate in the Fast Track Process at this time. In order to consider small generating facilities larger than 5 MW in the Fast Track Process, additional screens would have to be developed to address the complexities involved with analyzing a networked transmission system. Pursuant to these considerations, the ISO and stakeholders determined that it is appropriate to increase the size limit for the Fast Track Process under the GIP tariff amendment to 5 MW, which will make the Fast Track Process available to a larger pool of proposed small generating Facilities. The ISO will continue to examine the operation of the Fast Track Process and, if it is determined that larger facilities can safely be accommodated, will propose such modifications to the GIP at a future time.⁴⁹

⁴⁶ GIP Section 5.1.

⁴⁷ Rutty Testimony at 21-22.

⁴⁸ Order No. 2006 at P 172.

⁴⁹ Rutty Testimony at 22-23.

The second primary difference is that the Fast Track Process under the GIP tariff amendment omits several of the screens that apply under the SGIP Fast Track Process. The screens included in the SGIP but not in the GIP tariff amendment are the following:

- The type of interconnection is to a primary distribution line;
- If the proposed small generating facility is to be interconnected on a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed small generating facility, cannot exceed 20 MW;
- If the proposed small generating facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, the addition will not create an imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer; and
- No construction of facilities by the participating transmission owner on its own system will be required to accommodate the small generating facility.

With respect to the first three of these omitted screens, they do not apply to interconnections to the high voltage transmission system under the ISO's operational control and would never come into play.⁵⁰

With respect to the requirement that no construction facilities by the participating transmission owner on its own system be required to accommodate the small generating facility, this screen is proposed to be eliminated because the ISO does not believe it is appropriate to restrict the Fast Track Process simply because minor network modifications to participating transmission owners' facilities may be required.⁵¹ Rather, as discussed above, the ISO is proposing to amend the Fast Track Process provisions to provide that if the proposed interconnection passes the screens and upgrades are reasonably anticipated, the interconnection customer will be provided with the opportunity to attend a customer options meeting.⁵² The customer options meeting will include a review of possible interconnection customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the proposed small generating facility to be connected safely and reliably. The

⁵⁰ *Id.* at 24.

⁵¹ *Id.*

⁵² GIP Section 5.3.4.

further steps may include a supplemental review of the proposed small generating facility.⁵³ If transmission upgrades are ultimately determined to be required, then the applicable participating transmission owner shall provide an interconnection agreement to the customer for execution which sets forth the costs associated with the necessary upgrades.

In addition, the Fast Track Process under the GIP tariff amendment differs in minor respects from the Fast Track Process under the SGIP. The SGIP provide that the participating transmission owner will evaluate whether the proposed small generating facility that fails the screens may nevertheless be interconnected consistent with safety, reliability, and power quality standards, and the participating transmission owner conducts any customer options meeting that may be required. The GIP tariff amendment, however, states that both the ISO and the participating transmission owner are involved in these activities.⁵⁴ Although the SGIP do not specify this, in reality the ISO is a critical participant in the evaluation and customer options meeting under the Fast Track Process. The provisions to the GIP tariff amendment simply reflect that fact.

Another relatively minor difference is that the GIP clarifies that a demonstration of Site Control in the form of site exclusivity is required for an interconnection customer's proposed small generating facility, whereas the SGIP Fast Track Process requires the interconnection customer to demonstrate site control only.⁵⁵ The GIP tariff amendment includes the site exclusivity requirement under the Fast Track Process because site exclusivity (or a deposit in lieu of site exclusivity) is required for both large generating facilities and small generating facilities under the other two interconnection processes set forth in the GIP, the Queue Cluster Process and the Independent Study Process.⁵⁶ The ISO believes it is prudent to require site exclusivity for small generating facilities under the Fast Track Process as well. The only difference between small generating facilities under the GIP Fast Track Process and other types of generating facilities under the GIP is their size. The smaller size of generating facilities under the GIP Fast Track Process is not a valid reason to exempt them from the site exclusivity requirement.

Finally, the ISO is proposing to extend several of the timeframes in the Fast Track Process relating to steps requiring ISO and participating transmission

⁵³ GIP Sections 5.4-5.5.

⁵⁴ GIP Sections 5.3-5.4.

⁵⁵ Compare SGIP Section 1.3.5 with GIP Section 5.1(iii).

⁵⁶ GIP Section 3.5.1(iii).

owner review.⁵⁷ The ISO is proposing these extensions because increasing the threshold from 2 to 5 MW and eliminating the screen relating to construction of participating transmission owner's facilities may require more complicated and resource-intensive analyses by the ISO and participating transmission owners.

D. Queue Cluster Timelines

The GIP tariff amendment includes two primary modifications to the cluster study timelines set forth in the current LGIP. First, the GIP considerably shortens the timelines for the Phase I and Phase II interconnection studies. Second, the GIP proposes to establish two application windows for each queue cluster, each of which will remain open for thirty days.⁵⁸

As discussed above, one of the purposes of the GIP tariff amendment is to reduce the amount of time required to process interconnection requests for large generating facilities and small generating facilities. Shortening the timelines for conducting the interconnection studies is part of that effort. To that end, the GIP tariff amendment revises the timelines for the Phase I interconnection study and the Phase II interconnection study by a total of six months. The changes to the timelines are detailed in revised Attachment A of Appendix 4 of the LGIP and in Sections 6.8 and 7.5 of the GIP. Pursuant to the revised timelines, the total number of days for conducting the various steps in the Phase I interconnection study process (*i.e.*, the Phase I Cluster Study, the Short Circuit Duty, facility cost estimates and schedules, the Final Report, and the Final Study Report) will be shortened from 180 days under the current LGIP to 134 days under the GIP. Further, the total number of days for conducting the steps in the Phase II Interconnection Study process (*i.e.*, the Standard Project Refinement and Facilities Study and the Final Plan of Service Report) will be shortened from 330 days under the current LGIP to 196 days under the GIP. Thus, the revised timelines for the Phase I and Phase II interconnection study processes will significantly decrease the number of days for completion of each of these studies.

The revised cluster study timelines under the GIP tariff amendment result in a study process that is approximately three months longer than the process set forth in the ISO's SGIP. The ISO believes that this modest difference in timing is more than made up for by the advantages offered to small generators in the cluster study process, such as greater cost certainty earlier in the process, the

⁵⁷ Compare SGIP Section 2.2.2 (stating that interconnection agreement will be forwarded to customer within five Business Days) with GP Section 5.3.2 (stating that interconnection agreement will be forwarded to customer within fifteen Business Days).

⁵⁸ A table showing the study timelines for the LGIP and GIP is included as Attachment 1 to Mr. Rutty's testimony.

elimination of delays due to factors such as the interdependency between the LGIP and SGIP and restudies due to project withdrawals, and increased time for small generators to make decisions regarding continuation in the interconnection process after receiving their Phase I study results. As discussed above, given the current volume of SGIP projects, the timelines set forth in the SGIP have become impossible to meet, which further diminishes any meaning that might otherwise be given to the approximately three-month difference in study timing between the GIP and SGIP.⁵⁹

The GIP tariff amendment also revises the provisions in the LGIP on the timing of submissions for interconnection requests in the Queue Cluster. In the current LGIP, the ISO specified three discrete queue clusters along with application windows during which interconnection requests for these queue clusters would be accepted. However, for queue clusters subsequent to these three defined windows, the LGIP specifies that such queue cluster windows will be set forth in a Business Practice Manual.⁶⁰ In order to provide customers with more certainty, and due to the shortened study timelines, the GIP tariff amendment proposes to establish fixed dates for queue cluster application windows, with additional study cycle dates to be based off of these application window dates.

Specifically, there will be two “Cluster Application Windows” associated with each interconnection study cycle.⁶¹ The first Cluster Application Window will open on October 15 and close on November 15 of the year prior to the year in which the Interconnection Studies are performed. This first Cluster Application Window will allow customers to submit interconnection requests and receive a scoping meeting, but the studies themselves will not commence until after the closing of the second Cluster Application Window, which will open on March 1 and will close on March 31. The ISO added this feature at the request of stakeholders, who wished an additional opportunity to receive feedback on their interconnection requests prior to the commencement of the next queue cluster.⁶² Moreover, the ISO is limiting the application windows to thirty days in duration, based on its experience that the vast majority of interconnection requests have

⁵⁹ Rutty Testimony at 25-26.

⁶⁰ LGIP Section 3.3.

⁶¹ GIP Section 3.3.1. Cluster Application Window is a new defined term added in the GIP tariff amendment to Appendix A of the ISO tariff, which replaces the term “Queue Cluster Window.”

⁶² Rutty Testimony at 26. However, due to the timing of when the GIP tariff amendment is being filed (October 19, 2010) and its requested effective date (December 19, 2010), there will be only one Cluster Application Window for the ISO’s fourth Queue Cluster, which will open on March 1, 2011 and close on March 31, 2011. See GIP Section 3.3.1.

been submitted within the last thirty days of the application windows opened to date.⁶³

The GIP tariff amendment modifies the timing of a number of due dates in the interconnection request process to accommodate the volume of interconnection requests for large generating facilities and small generating facilities that the ISO anticipates will be submitted after the GIP tariff amendment goes into effect. This volume of interconnection requests will require a modest increase in the amount of time needed to process the interconnection requests. Accordingly, pursuant to the changes contained in the GIP tariff amendment, the ISO will forward a copy of each interconnection request to the applicable participating transmission owner within five business days (rather than the current three business days under the LGIP) of receipt.⁶⁴ Also, whenever additional requested information is provided by the interconnection customer, the ISO will notify the interconnection customer within five business days (rather than the current three business days under the LGIP) of receipt of the additional requested information whether the interconnection request is valid.⁶⁵ In addition, if an interconnection request has not been deemed valid, the interconnection customer must submit the information necessary to meet the requirements no later than 20 business days (rather than the current 20 calendar days) after the close of the applicable Cluster Application Window or ten business days (rather than the current 10 calendar days) after the ISO first provided notice that the interconnection request was not valid, whichever is later.⁶⁶ The ISO believes that these relatively minor increases are justified given the large number of interconnection requests that the ISO and participating transmission owner have received over the past several years, and expect to continue to receive, and are particularly reasonable in light of the significant reductions to the length of the interconnection study cycle that will be implemented in the GIP.

The GIP proposal also adds language to make clear that interconnection customers may submit interconnection requests for processing under the Independent Study Process or the Fast Track Process at any time during the year.⁶⁷

⁶³ Ruty Testimony at 26-27.

⁶⁴ GIP Section 3.1.

⁶⁵ GIP Section 3.5.2.2.

⁶⁶ GIP Section 3.5.2.2.

⁶⁷ GIP Section 3.3.2.

E. Deposit-Related Modifications

The current LGIP states that, to initiate an interconnection request, except with regard to certain small and existing generating facilities, the interconnection customer must submit a \$250,000 interconnection study deposit.⁶⁸ The GIP tariff amendment revamps this requirement to state that the interconnection customer must submit an interconnection study deposit equal to \$50,000 plus \$1,000 per megawatt of electrical output of the generating facility, up to a maximum of \$250,000.⁶⁹

The rationale for this revised requirement is that the ISO and stakeholders determined that the amount of the interconnection study deposit should be better calibrated to the size of the proposed generating facility. These tariff changes will mean that the interconnection study deposit amount is “right-sized” for proposed generating facilities that are 200 MW or less, which will provide an incentive for the interconnection customers for those generating facilities to accurately identify the ultimate size of the generating facilities from the start, thus improving the accuracy of the applicable studies. Moreover, with respect to small generators currently processed under the SGIP, this formula results in study deposits that are less than the average cost of studies performed under the SGIP (\$110,000 for a project obtaining all three SGIP studies). For proposed generating facilities that are at least 200 MW, the \$250,000 interconnection study deposit amount set forth in the current LGIP will be preserved (because each such proposed generating facility must pay an interconnection study deposit amount equal to $\$50,000 + (\$1,000 \times 200) = \$250,000$).⁷⁰

Also, the provisions in the LGIP regarding interconnection study deposits currently state that, should an interconnection request be withdrawn within a specified timeframe, the ISO will refund to the interconnection customer the difference between (i) the interconnection customer’s interconnection study deposit and (ii) the greater of the costs the ISO and the participating transmission owner have incurred on the interconnection customer’s behalf or \$100,000, including interest.⁷¹ The GIP tariff amendment modifies these provisions to state that, if an interconnection request is withdrawn during that timeframe, the ISO will refund to the interconnection customer the difference between (i) the interconnection customer’s interconnection study deposit and (ii) the greater of the costs the ISO and the participating transmission owners have incurred on the interconnection customer’s behalf or one-half of the original interconnection study

⁶⁸ LGIP Section 3.5.1(i).

⁶⁹ GIP Section 3.5.1(i).

⁷⁰ Ruddy Testimony at 27.

⁷¹ LGIP Section 3.5.1.2(b).

deposit up to a maximum of \$100,000, including interest.⁷² This new tariff language reflects the more calibrated approach to study deposit requirements that the ISO is proposing to adopt in the GIP, as explained above.

Further, the GIP tariff amendment modifies the provisions in the LGIP regarding the use of interconnection study deposits. As modified, the provisions state that the interconnection study deposits will be refundable in specified circumstances, except with regard to proposed generating facilities processed under the Fast Track Process.⁷³ The provisions regarding the interconnection study deposits have been modified to apply to the studies and meetings applicable to proposed generating facilities processed under the Independent Study Process.⁷⁴

The current LGIP also states that each interconnection customer must demonstrate site exclusivity or post a site exclusivity deposit of \$250,000.⁷⁵ The ISO and stakeholders determined that this site exclusivity deposit amount was too much for proposed small generating facilities. Therefore, the GIP tariff amendment modifies the current requirement to state that the interconnection customer must demonstrate site exclusivity or, for interconnection requests in a queue cluster, must post a site exclusivity deposit of \$100,000 for a small generating facility or \$250,000 for a large generating facility.⁷⁶ This modification appropriately balances the need to encourage developers to obtain site exclusivity early in the interconnection process and the need to avoid imposing an unreasonable financial burden on smaller projects.⁷⁷

F. Interconnection Financial Security

The ISO believes it is important that small generators be required to post interconnection financial security in advance of the construction of transmission upgrades for the same reasons that the ISO implemented financial security requirements for large generators as part of the GIPR Amendment: in order to ensure that developers have sufficient “skin in the game” such that they are encouraged to make decisions regarding the status of their projects as early in the process as possible. This reduces the incentive for non-viable projects to

⁷² GIP Section 3.5.1.1(b).

⁷³ GIP Section 3.5.1.1.

⁷⁴ GIP Section 3.5.1.1.

⁷⁵ LGIP Section 3.5.1.

⁷⁶ GIP Section 3.5.1(iii).

⁷⁷ Ruddy Testimony at 29.

remain in the interconnection queue after the completion of the Phase I interconnection study, at which point generators should have a reasonable estimate as to their responsibility for upgrade costs. This is particularly important given the high volume of small generator requests that the ISO has received over the past two years, and expects to continue to receive over the next several years.⁷⁸

The ISO recognizes, however, that the need to promote rational and early decision-making by developers must be appropriately balanced against the need to avoid creating financial barriers that work to discourage the entry of viable projects into the interconnection queue, particularly for smaller projects that may not have the capital and financing resources available to larger developers. After discussing this issue with stakeholders in the GIP stakeholder process, the ISO concluded that although small generators should be subject to financial security requirements, the minimum financial security should be reduced for small generators, and moreover, that all generators should be subject to a cap on their second posting of financial security, with small generators subject to a smaller cap relative to large generators. The ISO further worked with stakeholders to develop the specific financial security requirements for small generators which the ISO believes represent an appropriate balance between ensuring that small generators have enough “skin in the game” without discouraging small generators from seeking interconnection. Therefore, under the GIP tariff amendment, small generators studied in a queue cluster or under the Independent Study Process (but not under the Fast Track Process) will be required to post interconnection financial security under the same schedule as large generators, but under revised formulas for determining security for network upgrade costs, in order to reduce the financial burden on small generators.⁷⁹

The current provisions in the LGIP regarding the initial posting of interconnection financial security will continue to apply to interconnection customers that have proposed large generating facilities in the interconnection queue and will also now apply to interconnection customers with proposed large generating facilities in the Independent Study Process. Specifically, each such interconnection customer will be required to 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 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

⁷⁸ *Id.* at 30-31.

⁷⁹ *Id.* at 31.

no event less than \$500,000.⁸⁰ Under the GIP tariff amendment, each interconnection customer for a small generating facility assigned to a Queue Cluster or in the Independent Study Process will be required to make a similar initial posting of interconnection financial security. Specifically, each such interconnection customer will be subject to the same initial posting requirements applicable to large generating facilities, except that the minimum initial posting requirement is \$50,000 for the small generating facilities.⁸¹

The provisions in the LGIP regarding second postings of interconnection financial security will continue to apply to interconnection customers that have large generating facilities assigned to a Queue Cluster and will also now apply to interconnection customers with large generating facilities in the Independent Study Process. The GIP tariff amendment also adds caps on financial security requirements for the second posting, for both large and small generators. Pursuant to the GIP tariff amendment, each interconnection customer for a large generating facility will be required to post an interconnection financial security instrument in an amount equal to the lesser of (i) \$15 million or (ii) 30 percent of the total cost responsibility assigned to the interconnection customer for network upgrades in the final Phase I interconnection study, the final Phase II interconnection study, the system impact study, or the facilities study, whichever is lower. In no event will the total amount posted be less than \$500,000.⁸²

Under the GIP tariff amendment, an interconnection customer for a small generating facility assigned to a queue cluster or in the independent study process will be required to make a smaller second posting of interconnection financial security. Specifically, each such interconnection customer will be required to make a second posting to increase its interconnection financial security to a dollar amount that is the lesser of (i) \$1 million or (ii) 30 percent of the total cost responsibility assigned to the interconnection customer for network upgrades in the final Phase I interconnection study, the final Phase II interconnection study, the system impact study, or the facilities study, whichever is lower. In no event will the total amount posted be less than \$100,000.⁸³

Further, the GIP tariff amendment modifies the ISO tariff to set forth timelines for interconnection customers in the Independent Study Process to post their interconnection financial security instruments and to receive partial refunds

⁸⁰ GIP Section 9.2.3.

⁸¹ GIP Section 9.2.3. The \$7.5 million limit on the first posting is also removed as irrelevant for small generators, as it would be impossible for any plant 20 MW or smaller to reach that amount at a rate of \$20,000 per MW.

⁸² GIP Section 9.3.1.2.

⁸³ GIP Section 9.3.1.2.

of their interconnection financial security in the event they withdraw their interconnection requests or terminate their interconnection agreements. These timelines are shorter than the amounts of time required for these activities for interconnection customers in a Queue Cluster⁸⁴ because of the overall expedited timeline for studying and interconnecting generators under the Independent Study Process in relation to the Cluster Study Process.

The GIP tariff amendment also adds provisions to clarify that, if the costs of the actual estimated network upgrades are less than the minimum posting amount, the posting amount required will be equal to the actual estimated network upgrade amount.⁸⁵ This ensures that both small and large generator interconnection customers will not be required to post financial security in excess of the total amount of network upgrade costs, which the ISO believes would be an unreasonable result.⁸⁶

Lastly, the GIP tariff amendment includes some minor clarification changes regarding interconnection financial security. First, the amendment modifies the tariff provisions regarding the third posting of interconnection financial security to add language stating that the provisions apply to both interconnection customers in the Queue Cluster process and interconnection customers in the Independent Study Process.⁸⁷ The GIP tariff amendment also reorganizes the provisions relating to the first and second postings of interconnection financial security in order to improve flow and readability.⁸⁸

G. Additional Deliverability Assessment Options

Section 6 of the current LGIP includes provisions regarding on-peak and off-peak deliverability assessments for interconnection customers selecting full capacity deliverability status in their interconnection requests. As discussed further in the testimony of Robert Sparks,⁸⁹ the GIP tariff amendment provides additional deliverability assessment options in new Section 8 of the GIP. Specifically, the GIP tariff amendment gives large generating facilities that were previously studied as energy-only deliverability status, as well as small generating facilities studied under the SGIP, the option, on either a one-time or

⁸⁴ GIP Sections 9.4.2.1 and 9.4.2.2.

⁸⁵ GIP Sections 9.2.3 and 9.3.1.2.

⁸⁶ Ruddy Testimony at 32.

⁸⁷ GIP Section 9.3.2.

⁸⁸ GIP Sections 9.2 and 9.3.1.

⁸⁹ Sparks Testimony at 12-18.

an annual basis, to be studied for full capacity deliverability status.⁹⁰ This process will permit those generators to obtain full capacity deliverability status that would otherwise be unavailable to them. This option will be particularly valuable to small generators that have already interconnected through the SGIP process, which does not provide an option for full capacity deliverability.⁹¹

Generating facilities that meet the eligibility requirements for the one-time full capacity deliverability option must make their elections within the Cluster Application Window for the ISO's fourth Queue Cluster, which will open on March 1, 2011, and any interconnection customers selecting this option will be studied as part of the Phase I and Phase II interconnection studies for the ISO's fourth Queue Cluster.⁹² Interconnection customers electing the one-time option will be required to post an interconnection study deposit, less any study deposit amounts already paid if the interconnection customer's generating facility is still active in the ISO's interconnection queue (*i.e.*, it has not yet signed an interconnection agreement).⁹³ The determination and allocation of costs relating to any delivery network upgrades identified as part of this process will be done pursuant to the standard provisions included in the cluster study sections of the GIP. The ISO believes it is appropriate to provide this one-time option because of the increased emphasis on generator deliverability in the past several years, particularly in light of resource adequacy initiatives.⁹⁴

Generating facilities that meet the eligibility requirements for the annual full capacity deliverability option will be studied to determine if they can be designated for full capacity deliverability status using available transmission capacity. An interconnection customer must make such request within a Cluster Application Window, beginning with the Cluster Application Window for the ISO's fifth Queue Cluster, which will open on March 1, 2012.⁹⁵ Any interconnection customer selecting this option will be studied immediately following the Phase II interconnection studies associated with the Queue Cluster during which the interconnection customer submits its request, typically June through August annually.⁹⁶ Interconnection customers that wish to participate in this annual

⁹⁰ GIP Sections 8.1-8.2.

⁹¹ Sparks Testimony at 12; Rutty Testimony at 32.

⁹² GIP Sections 8.1.2 and 8.1.3.

⁹³ GIP Section 8.1.4.

⁹⁴ Sparks Testimony at 13.

⁹⁵ GIP Section 8.2.1.

⁹⁶ GIP Section 8.2.2.

process must submit an interconnection request as set forth in Appendix 1 to the GIP along with a non-refundable \$10,000 study fee.⁹⁷ After reviewing several different options during the development of the GIP proposal, the ISO determined that this study fee amount represents a reasonable average of the costs associated with analyzing the ISO controlled grid to determine what available transmission capability could be used to provide eligible generators with deliverability.⁹⁸

After allocating transmission system capability, including both capability associated with existing capability and capability relating to approved transmission upgrades, to interconnection customers in the Queue Cluster who originally requested full capacity deliverability status in the Phase II interconnection study, the ISO will perform additional studies using the deliverability study procedures set forth in Section 6.5.2 of the GIP to determine the availability of any remaining transmission system capability for those interconnection customers requesting full capacity deliverability status as part of the annual process.⁹⁹ In determining available transmission capability, priority will be given to interconnection customers whose generating facilities have the lowest transfer distribution factors on the transmission constraint that is limiting deliverability, calculated according to the deliverability study procedures set forth in Section 6.5.2 of the GIP.¹⁰⁰

Providing deliverability priority to generators with the lowest transfer distribution factors on the transmission constraint that is limiting the deliverability of the generators is a reasonable methodology for allocating remaining transmission capability, because it will result in creating the maximum amount of available generation capacity available for generators to offer to load serving entities to meet their resource adequacy planning needs, thereby maximizing the efficient use of the ISO controlled grid.¹⁰¹

If there is sufficient remaining available transmission capability for the interconnection customer to deliver the full output of its generating unit, then the interconnection customer's generating facility will be considered to have full capacity deliverability status.¹⁰² If the assessment of available transmission

⁹⁷ GIP Section 8.2.3.

⁹⁸ Sparks Testimony at 14.

⁹⁹ GIP Section 8.2.4.

¹⁰⁰ GIP Section 8.2.4.1.

¹⁰¹ Sparks Testimony at 15.

¹⁰² GIP Section 8.2.4.2.

capability indicates that there is some transmission capacity available for use by the interconnection customer, but less than is necessary to deliver the full output of the interconnection customer's generating facility, then the interconnection customer's generating facility will be considered to be partially deliverable, and the amount of transmission capability made available to that interconnection customer's generating facility will be equal to the determination of available capacity for the generating facility rounded down to the nearest 50 MW increment.¹⁰³

The ISO is proposing to make such remaining transmission capability available in 50 MW increments in order to ensure that the ISO does not allocate for deliverability purposes all of the existing capability of the transmission system, in order to ensure that the system has sufficient overall "headroom." Retaining sufficient headroom is important so that the deliverability of generators that have already obtained deliverability is minimally impacted by subsequent new generation additions. If the ISO were to make all transmission capability available to generators through partial deliverability, the ISO's flow models would show that transmission constraints are at 100 percent of their limits. As a result, when the ISO conducts its annual deliverability assessments to determine the net qualifying capacity of generators, it is very likely that even small incremental changes in load growth and transmission expansion (which are common) will require reductions to numerous generators' net qualifying capacity.

Although the ISO recognizes that some changes to net qualifying capacity are acceptable, the ISO believes that frequent reductions to numerous generators' net qualifying capacity will be disruptive to both generators and load serving entities, because a generator's net qualifying capacity is a key term in many of the commercial arrangements and contracts underlying the resource adequacy and RPS regimes. Moreover, if the ISO was to allocate all of the available capability as part of this annual process, generators electing to be studied as full capacity deliverability projects with very small flow impacts (less than five percent) on electrically distant lines loaded to 100 percent would require reductions in deliverability to generators electrically close to those constraints. This is because ISO deliverability procedures do not require generators with flow impacts of less than five percent of the generators' output on a transmission constraint to pay for upgrades on that constraint. For these reasons, the ISO believes that the best balance between providing some deliverability to generators that do not qualify for full capacity deliverability status and retaining

¹⁰³ GIP Section 8.2.4.3. For example, if a 60 MW generating facility requests full capacity deliverability in the annual assessment process, and the ISO determines that 55 MW of transmission capability is available to that facility, the ISO will provide 50 MW of transmission capability for purposes of determining the generator's deliverability.

sufficient headroom on the ISO controlled grid is to allocate partial deliverability in the annual process on the basis of 50 MW increments.¹⁰⁴

In addition, the GIP tariff amendment provides that, to the extent that a participating transmission owner's tariff provides the option for customers taking interconnection service under the participating transmission owner's tariff to obtain full capacity deliverability status, the ISO will, in coordination with the applicable participating transmission owner, perform any necessary deliverability studies.¹⁰⁵ This provision ensures that any such deliverability analysis will include the input of both the ISO and the applicable participating transmission owner. Further, the ISO will execute any necessary agreements for reimbursement of study costs it incurs and to assure cost attribution for any network upgrades relating to any deliverability status conferred to such customers under the participating transmission owner's tariff.¹⁰⁶

The GIP tariff amendment also proposes to revise Section 40.4.6.1 of the ISO tariff to state that, for resource adequacy resources¹⁰⁷ in the same electrical group which have identified deliverability constraints, the qualifying capacity¹⁰⁸ of the resource adequacy resources that obtained full capacity deliverability status or partial deliverability through the annual full capacity deliverability option set forth in Section 8.2 of the GIP will be reduced prior to reducing the Qualifying Capacity of those resources which were originally provided full capacity deliverability status pursuant to inclusion in an interconnection study cycle under the LGIP. This priority is reasonable because resources electing and receiving full capacity deliverability status through the standard interconnection study procedures are responsible for paying the costs of any upgrades necessary to obtain such deliverability, while resources obtaining deliverability through the option for annual full capacity deliverability discussed above are making use of remaining transmission capability on an "as is" basis for only the cost of the

¹⁰⁴ Sparks Testimony at 16-18.

¹⁰⁵ GIP Section 8.3. The participating transmission owner tariff that would provide this option is the Wholesale Distribution Access Tariff ("WDAT"). One of the participating transmission owners, Southern California Edison Company, recently instituted a stakeholder process to revise its WDAT.

¹⁰⁶ GIP Section 8.3.

¹⁰⁷ A resource adequacy resource is defined in Appendix A of the ISO tariff as a resource that is designated in an investor-owned utility supply plan to provide resource adequacy capacity. The criteria for determining the types of resources that are eligible to provide qualifying capacity are established by the CPUC (or other applicable local regulatory authority).

¹⁰⁸ Qualifying capacity is defined in Appendix A of the ISO tariff as the maximum capacity of a resource adequacy resource. The criteria for calculating qualifying capacity from resource adequacy resources are established by the CPUC (or other applicable local regulatory authority).

study.¹⁰⁹ The GIP tariff amendment also revises Section 40.4.6.1 to state that resources will be electrically grouped in a manner consistent with the deliverability assessment methodology posted on the ISO website.

H. Transition of Existing SGIP Interconnection Requests to the GIP

There are a number of existing interconnection requests submitted pursuant to the SGIP that need to be transitioned to the new GIP regime. The provisions regarding the transitioning of SGIP interconnection requests to the GIP are contained in new Appendix 8 of the GIP. Appendix 8 includes two new defined terms: (1) the “SGIP Serial Study Group,” defined as those interconnection customers with valid interconnection requests submitted pursuant to the SGIP prior to December 19, 2010 (*i.e.*, the proposed effective date of the GIP tariff amendment) and who have executed system impact study or facilities study agreements providing for the completion of such studies by December 19, 2010; and (2) the “SGIP Transition Cluster,” defined as those interconnection customers with valid interconnection requests submitted pursuant to the SGIP prior to December 19, 2010 and which have not executed system impact study or facilities study agreements providing for the completion of such studies by December 19, 2010.¹¹⁰ The purpose of these defined terms is to distinguish between “late stage” interconnection requests (the SGIP Serial Study Group) and “early stage” interconnection requests (the SGIP Transition Cluster).

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 will not be required to conform to the provisions of the GIP. Rather, such interconnection requests will continue to be processed per the procedures set forth in the SGIP, unless they specifically indicate, in writing, within five business days from the effective date of Appendix 8, that they wish either to be included in the SGIP Transition Cluster, studied for full capacity deliverability status, or, if eligible, studied under the Independent Study Process set forth in the GIP.¹¹¹ An interconnection request deemed to be included in the SGIP Serial Study Group that wishes to be studied as a full capacity deliverability status generating facility will continue to be processed per the procedures set forth in the SGIP for energy-only deliverability, with a full capacity deliverability assessment to be performed as part of the next interconnection study cycle

¹⁰⁹ See Sparks Testimony at 16.

¹¹⁰ GIP Appendix 8, Section 1.2.2.

¹¹¹ GIP Appendix 8 Section 2.1.

following the completion of the serial portion of the generating facility's studies pursuant to Appendix 8.¹¹²

An interconnection request deemed to be included in the SGIP Transition Cluster (including those generating facilities defined as part of the SGIP Serial Study Group who choose to be processed in the SGIP Transition Cluster) that wishes to be studied as a generating facility with energy-only deliverability status will be processed per the procedures set forth in the GIP and studied as part of the Phase II interconnection study for the ISO's first and second Queue Clusters, which is scheduled to begin on January 1, 2011 and be completed on July 31, 2011. Alternatively, interconnection requests deemed to be included in the SGIP Transition Cluster may, by indicating in writing, within five business days from the effective date of Appendix 8, elect to be studied for full capacity deliverability status, or, if eligible, as part of the Independent Study Process set forth in the GIP.¹¹³ An interconnection request deemed to be included in the SGIP Transition Cluster that wishes to be studied as a full capacity deliverability status generating facility will be studied for energy-only deliverability as part of the Phase II interconnection study for the ISO's first and second Queue Clusters, with a full capacity deliverability assessment to be subsequently performed as part of the ISO's fourth Queue Cluster, which is scheduled to begin on June 1, 2011.¹¹⁴

An interconnection customer in the SGIP Transition Cluster must post, within 30 calendar days of the effective date of Appendix 8, all of the following: (i) an interconnection study deposit equal to the amount set forth in Section 3.5.1 of the GIP, if it has not done so already; and (ii) a demonstration of site exclusivity, if it has not done so already. An interconnection customer that does not satisfy these posting requirements will be withdrawn from the SGIP Transition Cluster. An interconnection customer who withdraws from the SGIP Transition Cluster will be refunded the entire amount of its interconnection study deposit upon withdrawal, less any amounts that the ISO and participating transmission owners have incurred in performing studies on the interconnection customer's behalf.¹¹⁵ At the conclusion of the Phase II interconnection study for the ISO's first and second Queue Clusters, each interconnection customer remaining in the SGIP Transition Cluster will 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, it must execute a small generator

¹¹² GIP Appendix 8, Section 2.2.

¹¹³ GIP Appendix 8, Section 3.1.

¹¹⁴ GIP Appendix 8, Section 3.2.

¹¹⁵ GIP Appendix 8, Section 3.3.

interconnection agreement within 90 calendar days of receiving the final report and must post the required interconnection financial security.¹¹⁶

The ISO will attempt to study the SGIP Serial Study Group prior to studying the SGIP Transition Cluster. To the extent that is not practicable, the ISO will study all of the existing SGIP interconnection requests as expeditiously as possible based on the most recent base case data. If the ISO anticipates that it will not be able to complete the studies for all SGIP Serial Study Group projects prior to commencing study of the SGIP Transition Cluster, the ISO will, at that time, notify any SGIP Serial Study projects that it believes it will not be able to complete before the SGIP Transition Cluster, and provide those customers the opportunity to switch to the SGIP Transition Cluster.¹¹⁷

The ISO is defining the SGIP Serial Group and SGIP Transition Cluster in this manner for two reasons. First, the ISO needs to reduce the number of interconnection requests that it will continue to process under the SGIP in order to allow it to process these remaining requests within a reasonable timeframe. Likewise, the ISO believes that deferring interconnection requests in earlier stages of the process until later queue clusters will give those customers the best chance to achieve commercial operation at an earlier date than would be possible under the current serial process. At the same time, however, the ISO recognizes that customers with later-stage interconnection requests may have placed an increased level of reliance on the existing SGIP procedures, such that moving such requests into the new process could cause them substantial disruption. The ISO believes that a reasonable demarcation point between earlier and late stage requests is whether customers have executed a system impact or facilities study agreement providing for the completion of such an agreement prior to the implementation of the GIP proposal, because such customers would be expected to receive their study results under the process set forth in the SGIP prior to the implementation of the GIP procedures.¹¹⁸

It is therefore reasonable to include in the GIP procedures those customers that have submitted interconnection requests in the SGIP, but have not signed a system impact or facilities study agreement indicating a completion date prior to the effective date of the GIP. Nevertheless, the ISO believes that because these customers have already submitted interconnection requests, that they should be processed through the cluster study procedures as soon as possible. Therefore, the ISO is proposing to include these SGIP Transition Cluster requests in the Phase II interconnection study for the first and second

¹¹⁶ GIP Appendix 8, Section 3.4.

¹¹⁷ Ruddy Testimony at 34-35.

¹¹⁸ *Id.* at 33-34.

Queue Clusters. This somewhat truncated study procedure is reasonable and appropriate given that it will only involve an energy-only deliverability assessment and therefore, will be less complicated in scope and execution.¹¹⁹

I. Generator Interconnection Agreement

The GIP tariff amendment adds to the Master Definitions Supplement contained in Appendix A of the ISO tariff the new term “Generator Interconnection Agreement,” which is defined to mean the form of interconnection agreement applicable to an interconnection request pertaining to a generating facility processed under the interconnection procedures set forth in Appendix Y of the ISO tariff. The definition specifies that, for a large generating facility, a pro forma version of the interconnection agreement is set forth in Appendix Z of the ISO tariff, and for a small generating facility, a pro forma version of the interconnection agreement is set forth in Appendix T of the ISO tariff. The ISO proposes to make minor and ministerial revisions to the SGIP contained in Appendix T and the LGIP contained in Appendix Z to conform them to the definition of a Generator Interconnection Agreement and the other components of the GIP tariff amendment.

Because the ISO is already modifying the SGIA in this GIP tariff amendment, the ISO is also taking this opportunity to delete Article 1.5.7 and Attachment 8 from the SGIA, and to make conforming revisions to Article 12.12 of the SGIA, pursuant to a letter dated September 29, 2010 from the Western Electricity Coordinating Council (“WECC”) notifying the ISO of its intent to terminate its Reliability Management System (“RMS”) agreement and reliability criteria agreement with the ISO. On October 11, 2010, WECC also filed with the Commission a notice of proposed cancellation of its RMS agreement originally filed in Docket No. ER99-3396-000. WECC has represented in its letter to the ISO that the RMS served as a predecessor to the mandatory reliability standards approved by the Commission under its authority pursuant to Section 215 of the Federal Power Act (16 U.S.C. §8240) and that the Commission’s approval of these standards has rendered the RMS redundant for users, owners, and operators of the bulk power system in the United States. In its notice of proposed cancellation filed with the Commission, WECC has made a similar representation that the RMS has been rendered obsolete.

The provisions of Article 1.5.7 and Attachment 8 of the SGIA incorporate an RMS agreement to be entered into between the ISO and the interconnection customer to bind the interconnection customer to comply with WECC RMS requirements applicable to generators. The ISO has incorporated this agreement into the SGIA for no purpose other than to satisfy the requirements of its own RMS agreement with WECC. As the ISO’s RMS agreement with WECC will be

¹¹⁹ *Id.* at 36.

terminating, and as WECC has represented that the RMS is redundant to the mandatory reliability standards and is obsolete, the ISO sees no further purpose in requiring interconnection customers to enter into the RMS agreement for generators incorporated in Attachment 8. For this reason, the ISO proposes to delete the provisions of Article 1.5.7 and Attachment 8 from the SGIA, and to make conforming revisions to Article 12.12.

J. Conforming and Miscellaneous ISO Tariff Changes

The GIP tariff amendment includes a number of changes that need to be made to various ISO tariff provisions to bring them into conformance with the GIP tariff amendment.

First, the GIP tariff amendment modifies Appendix A of the ISO tariff to include the following new defined terms included in the GIP tariff amendment that are also discussed above in this transmittal letter: Cluster Application Window, Generator Interconnection Agreement, Generator Interconnection Procedures, and Queue Cluster. The GIP tariff amendment also includes minor revisions to a number of existing defined terms in Appendix A to align those terms with the provisions of this tariff amendment. Similarly, the GIP tariff amendment includes non-substantive modifications to Sections 24 and 25 of the ISO tariff to conform them to the GIP tariff amendment.

The GIP tariff amendment also contains revisions to Section 2.3 of the LGIP to modify the provisions therein regarding the set of updated interconnection base case data that the ISO will publish prior to the Phase I interconnection study, after the Phase I interconnection study, prior to the Phase II interconnection study, and after the Phase II interconnection study. As modified, Section 2.3 states that the ISO, in coordination with applicable participating transmission owners, will publish updated interconnection base case data during those intervals that include generation reflected in valid interconnection requests submitted in the cluster application windows for the interconnection study cycle, as well as all generation reflected in the interconnection requests in the Independent Study Process that entered the ISO's interconnection queue prior to the creation of the base case, along with any associated transmission upgrades or additions.¹²⁰ This conforms the publication of base case data to the revised cluster study timelines included in the GIP.

The GIP tariff amendment modifies the Internet posting provisions in Section 3.6 of the LGIP to state that the ISO will post to the secure CAISO Website portions of the Phase I interconnection study that do not contain customer-specific information following the final results meeting and portions of

¹²⁰ GIP Section 2.3.

the Phase II interconnection study that do not contain customer-specific information no later than publication of the final ISO transmission plan. These tariff changes simply clarify the nature of the information the ISO will post and the location where that information will be posted.

The GIP tariff amendment revises the interconnection application process, including the application form set forth in Appendix 1 of the LGIP, to apply to all interconnection requests, including those for the Queue Cluster, the Independent Study Process, and the Fast Track Process, as well as for the one-time deliverability assessment and annual deliverability assessment set forth in the GIP tariff amendment.¹²¹ Pursuant to those tariff changes, the GIP tariff amendment also eliminates provisions in the LGIP that apply specifically to the initiation or withdrawal of an interconnection request for certain small and existing generating facilities.¹²² In addition, pursuant to stakeholder request, the GIP tariff amendment modifies Attachment A to Appendix 1 of the LGIP to clarify the technical information that the ISO requires from generators.

The GIP tariff amendment also incorporates into new Appendix 7 of the LGIP the application, procedures, and terms and conditions for interconnecting a certified inverter-based small generating facility no larger than 10 kW, which are also contained in Attachment 5 of the existing SGIP. These provisions are unchanged from the SGIP, and will provide a further option for small generators interconnecting under the GIP.¹²³ Further, the GIP tariff amendment deletes outdated provisions contained in Appendix 5 of the LGIP.

V. Stakeholder Process

In April 2010, the ISO established the stakeholder process that led to this GIP tariff amendment. Pursuant to the discussions with stakeholders over the following months, the ISO developed the Generator Interconnection Procedures contained in the tariff amendment. At its September 9, 2010 meeting, the ISO Governing Board authorized the ISO to prepare and file this Generator Interconnection Procedures tariff amendment.

The ISO held five meetings and conference calls with stakeholders to discuss the issues and implementation details regarding the Generator Interconnection Procedures, including a conference call to discuss the draft tariff language that the ISO shared with stakeholders. The ISO and stakeholders also held four working group meetings to discuss the Generator Interconnection

¹²¹ GIP Section 3.5.1(ii).

¹²² See deleted LGIP Section 3.5.1.1.

¹²³ Rutty Testimony at 37.

Procedures. The ISO also produced several written proposals for stakeholder review during this process, including an issues paper on April 14, a straw proposal on May 27, a draft final proposal on July 20, and an addendum to that final proposal on August 13. Further, the ISO solicited written comments and suggested edits to the draft tariff language from stakeholders, which it used to formulate its final proposal as contained herein.¹²⁴

The ISO believes that this robust process has led to a GIP that best reflects the needs of all parties to the interconnection process, including both small and large generator developers, transmission owners, and California ratepayers. Indeed, although the ISO was not able to achieve consensus on every individual issue, the vast majority of developers, including small renewable developers, have indicated their support for the overall direction of the GIP proposal, particularly the decision to implement an integrated clustered study approach as the default option for all generators.

VI. Effective Date

The ISO requests that the Commission accept the Generator Interconnection Procedures effective as of December 19, 2010, *i.e.*, sixty-one days after the filing of this tariff amendment.

¹²⁴ The ISO has provided, in Attachment E to the instant filing, a listing of the key dates in the stakeholder process and electronic links to documents on the ISO's website concerning the Generator Interconnection Procedures.

VII. Communications

Communications regarding this filing should be addressed to the following individuals, whose names should be placed on the official service list for this proceeding:

Nancy Saracino
General Counsel
Sidney M. Davies
Assistant General Counsel
Baldassaro "Bill" Di Capo*
Senior Counsel

Michael Kunselman*
Bradley R. Miliauskas

**California Independent System
Operator Corporation**
151 Blue Ravine Road
Folsom, CA 95630
Tel: (916) 351-4400
Fax: (916) 608-7296

Alston & Bird LLP
The Atlantic Building
950 F Street, NW
Washington, DC 20004
Tel: (202) 756-3300
Fax: (202) 756-3333

E-mail:
nsaracino@caiso.com
sdavies@caiso.com
bdicapo@caiso.com

E-mail:
michael.kunselman@alston.com
bradley.miliauskas@alston.com

* Individuals designated for service pursuant to Rule 203(b)(3),
18 C.F.R. § 385.203(b)(3)

VIII. Service

The ISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission, the California Energy Commission, and all parties with effective Scheduling Coordinator Service Agreements under the ISO tariff. In addition, the ISO is posting this transmittal letter and all attachments on the ISO website.

IX. Attachments

The following documents, in addition to this transmittal letter, support this filing:

Attachment A	Revised ISO tariff sheets that incorporate the proposed changes described above
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Attachment B	Proposed changes to the ISO tariff shown in black-line format
Attachment C	Prepared Direct Testimony of Stephen Ruddy, Manager of Grid Assets at the ISO
Attachment D	Prepared Direct Testimony of Robert Sparks, Manager of Regional Transmission (South) at the ISO
Attachment E	Table summarizing key dates in the ISO's GIP stakeholder process
Attachment F	Fast Track Process included in Section 5 of the GIP blacklined against Fast Track Process currently included in the ISO's SGIP

X. Conclusion

For the foregoing reasons, the Commission should accept the proposed tariff changes contained in the instant GIP tariff amendment effective as of December 19, 2010, as requested by the ISO. Please contact the undersigned if you have any questions regarding this matter.

Respectfully submitted,

Michael Kunselman
Michael Kunselman

Nancy Saracino
General Counsel
Sidney M. Davies
Assistant General Counsel
Baldassaro "Bill" Di Capo
Senior Counsel

Bradley R. Miliauskas

**California Independent System
Operator Corporation**
151 Blue Ravine Road
Folsom, CA 95630

Alston & Bird LLP
The Atlantic Building
950 F Street, NW
Washington, DC 20004

Counsel for the California Independent System Operator Corporation