



California ISO
Shaping a Renewed Future

Draft Final Proposal

Generator Interconnection Procedures Phase 2 (“GIP 2”)

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Market and Infrastructure Development

Draft Final Proposal Generator Interconnection Procedures Phase 2

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1. Executive Summary

The GIP 2 initiative is an effort to address a variety of improvements to the ISO's generator interconnection procedures ("GIP"). These improvements span each of the three tracks under which the ISO processes generator interconnection requests: the Cluster Study process, which is the default process for most interconnection requests, and the Independent Study and Fast Track processes which provide for more rapid processing for certain qualified generation projects. The GIP 2 initiative addresses 26 distinct items that have been logically grouped for discussion purposes into the following major work group areas or categories:

- Work Group 1 – Developing greater integration between the GIP and the ISO's transmission planning process ("TPP"), to allow transmission expansion decisions to be made in a more comprehensive and holistic manner, to make more cost-effective use of ratepayer funding for transmission expansion, and to provide a basis for distinguishing between network upgrades that should be developed under the TPP with full funding by transmission ratepayers versus network upgrades for which the interconnection customer should bear non-refundable cost responsibility. Because of the complexity of this subject the ISO has decided to remove it from the GIP 2 initiative, and to create a separate, high-priority initiative for which the ISO will publish a new schedule in the near future.
- Work Group 2 – 1) Re-issuing study reports when errors or omissions occur, 2) adding steps through the Phase I and Phase II study process to help customers address modifications to their project and study reports, 3) a process to clarify how generators can interconnect to non-PTO facilities inside the ISO balancing authority area ("BAA") and have the ISO conduct deliverability studies, 4) developing greater understanding around the per-unit cost estimates the PTOs provide to the interconnection customers, 5) Identifying what information the ISO posts to both secure and non-secure ISO websites, 6) Coordinating with the PTOs to ensure interconnection customers are notified of changes to security postings amounts.
- Work Group 3 – 1) Adding pro forma partial termination provisions for phased projects to the GIP, 2) allowing projects to receive partial repayment of their security when phased projects reach commercial operation, 3) allowing projects the flexibility to reduce their size due to unforeseen permitting constraints without triggering a breach of the LGIA, 4) clarifying interconnection requirements to accommodate the CPUC's new Renewable Auction Mechanism, 5) clarifying procedures and adding new features for projects repowering, those converting from Qualifying Facility ("QF") status to commercial operations and in the Fast Track study track, 6) clarifying deliverability issues for QF conversions and distributed generation.
- Work Group 4 – 1) Developing provisions to make the ISO's financial posting waiver for PTO upfront funded network upgrades a permanent feature, 2) revising LGIA insurance requirements to ensure coverage is appropriate for all parties, 3) standardizing the accounting of future costs for interconnection and network upgrades in LGIAs for SDGE, SCE and PG&E, 4) clarifying the ISO's position that a customer's responsibility for network upgrades is the higher of the Phase I or Phase II study report results, 4) modifying the financial security posting requirements so that the posting amount calculations are the same for the PTO interconnection facilities and the network upgrades.

- Work Group 5 – 1) Adding more study options for customers seeking partial deliverability in between the Phase I and Phase II study process, 2) conforming voltage requirements for both the large and small generators, 3) clarify that the off-peak deliverability studies are performed for informational purposes only, 4) Making permanent the ISOs annual advisory deliverability assessment and also providing an opportunity for an NQC assessment a generator can use to receive RA deliverability counting credit in the next year assessment, 5) consider adding a more formal assessment for a post-phase II evaluation (an item proposed by Southern California Edison Company).

This draft final proposal is a follow-up to the ISO's GIP 2 straw proposal that was posted on April 14, 2011 and the subsequent round of stakeholder and work group meetings and written comments.¹ Based on the input received from stakeholders the ISO has made numerous changes to the earlier straw proposal. These changes are summarized here and described in detail in the full discussion of each topic in section 7 of this paper.

Work Group 1 – The GIP-TPP integration and cost assessment provisions are being taken out of the GIP 2 scope; the ISO will provide a revised schedule for addressing these topics in the near future. The last paragraph in section 6.1 contains new text explaining this change in the process.

Work Group 2 – Two new items are being proposed to address revisions to Phase 1 and Phase 2 study reports and to address stakeholder comments regarding the third posting of financial security. Also based on stakeholder comments, the ISO will develop BPM language to provide increased transparency in the study process. A tariff clean-up item is being added to section 6.2.3 to manage the disposition of forfeited study deposit funds by replacing a reference to a tariff section that is outdated.

Work Group 3 – The proposed partial termination provisions are essentially unchanged with an additional clarification on the calculation of the multiplier and the removal of one criterion from the eligibility requirements. The holdback provision was removed for repayment of IC funding of network upgrades, and additional clarification added to what constitutes commercial operations. This item still needs further development, however, and will be discussed in the next round of stakeholder meetings. Additional conditions were added for project size reductions due to permitting, but the prior proposal of a five percent safe harbor remains the same. The ISO has also changed its proposal from the straw version to allow any project to increase the size by up to 5 MW as long as the project can pass the screens in ISO Tariff, Appendix Y section 5.3.3.

Work Group 4 – Three new topics were included in work group 4. Two are from the proposal SCE presented at the last stakeholder meeting, i.e., suspension provisions and abandoned plant cost recovery. A third new topic raised by several stakeholders, considering the use of generation project viability in lieu of financial security postings, was also included in this work group. At the straw proposal stage, the ISO did not have a proposal to alter the financial posting amounts for the PTO's Interconnection Facilities. For the draft final proposal, the ISO proposes to modify the financial security posting requirements for PTO's Interconnection Facilities to mirror the posting amounts required

¹ The straw proposal and submitted stakeholder comments are available from the ISO's GIP 2 web page: <http://www.caiso.com/2b21/2b21a4fe115e0.html>.

for Network Upgrades. The ISO also proposes that the “escalation factors” used for time-adjusted dollar calculations be standardized across the PTOs

Work Group 5 – The ISO proposes to add a third partial deliverability (“PD”) option, in addition to the existing full capacity (“FC”) and energy only (EO) deliverability options, to allow generators additional flexibility, as well as an additional opportunity to change status from PD to EO. With regard to the ISO’s straw proposal to perform the course of construction advisory deliverability assessment on an annual basis, the ISO now proposes that the next year assessment could be used for the ISO’s annual NQC process for the next RA Compliance Year, but the results for the rest of the future years would still be advisory and provided for informational purpose only. A topic from SCE’s proposal, post-Phase II reevaluation, was added to this work group.

Following the publication of this draft final proposal, the ISO will conduct a stakeholder meeting on June 3, followed by a series of work group meetings and an opportunity for stakeholders to submit written comments. The ISO will then issue a revised draft final proposal, which will be followed by another round of stakeholder activity leading up to the August Board of Governors meeting, where ISO management will present the final GIP 2 proposal for Board approval.

2. Introduction

The ISO presents the draft final proposal for the GIP 2 stakeholder process to develop further enhancements to its Generation Interconnection Procedures.

This draft final proposal incorporates;

- The topics raised in the ISO’s straw proposal document issued April 14, 2011.²
- Refinements developed through work group meetings and stakeholder comments to the work group discussions. These work group meetings took place over the period of March 14 through May 13, 2011.
- In addition, the ISO has included certain other topics that are ancillary to either the straw proposal topics or items that the ISO or stakeholders raised in the work group sessions and comments to those session discussions.

This 2011 effort is a continuation of the process commenced last year, which began with considerations for refinement of the small generator interconnection process (“SGIP”) and culminated in a process which combined, harmonized and improved the small and large generator interconnection procedures into a single process, known simply as the Generator Interconnection Procedures (GIP).³ The GIP established three primary processing tracks: (1) a cluster study track, which serves as the default process and primary track; (2) an independent study process (ISP) track which allows certain projects to proceed independently of the cluster on a faster study track; and (3) a fast track process which is more broadly applicable than the FERC 2006 SGIP and available for certain generation projects of up to 5 MW.

² The ISO straw proposal document can be accessed on the ISO’s website at <http://www.caiso.com/2b60/2b60db343d0a0.pdf>.

³ .The Federal Energy Regulatory Commission’s (“FERC”) conditionally accepted the GIP on December 16, 2010 in Order Conditionally Accepting Tariff Revisions 133FERC ¶61,223 (December 16, 2010), and the ISO’s compliance filing in FERC’s Letter Order in Docket No ER-11-1830-001, dated March 28, 2011.

The specific topics the ISO considered for inclusion in the GIP-2 scope come from several sources.

- First, in the course of last year's GIP stakeholder process, stakeholders and the ISO identified additional issues that warrant further consideration but could not be addressed at that time. The ISO listed these issues in Section 8 of its draft final proposal for the 2010 GIP initiative.⁴
- Second, the ISO's revised transmission planning process ("RTPP") (filed with FERC in June 2010 and conditionally accepted on December 16, 2010)⁵ included significant steps toward greater integration between the generator interconnection and transmission planning processes, and also identified and deferred some interconnection policy issues for resolution in the 2011 GIP 2 initiative.
- Third, as the ISO has been negotiating large generator interconnection agreements ("LGIAs")⁶ over the past few months with interconnection customers ("ICs") and participating transmission owners ("PTOs"), the parties to these LGIAs have identified needs for new LGIA provisions which the ISO viewed as appropriate but could be adopted only as non-conforming provisions absent a stakeholder process to amend the pro forma LGIA.
- Fourth, through work group meetings and comments filed in response to the issue paper, the ISO has selected six additional topics to include in GIP 2.

The ISO had previously selected 24 items for inclusion in the scope of this GIP 2 stakeholder effort. With this draft final proposal, the ISO has decided to remove two items from scope (economic test and GIP/TPP integration) and to create a separate initiative and timetable for these items. The two items were grouped under the topic "GIP Cost Assessment Provisions" in the prior straw proposal. The ISO is making this change to allow sufficient time to address the complexity and multiplicity of the issues involved, but fully intends to maintain the high priority these items warrant. The ISO is now preparing and in the near future will inform stakeholders regarding the revised schedule of activities for this new initiative.

The list of topics now includes 26 items for inclusion in the scope of this GIP 2 stakeholder effort. The ISO intends that once the items in scope are finalized in this stakeholder process, they will be placed on one of two tracks for resolution through this initiative and presented to the ISO Board of Governors at the August Board of Governors meeting: (1) ISO's Business Practice Manual Change Management process for inclusion in Business Practice Manuals, or (2) as a proposed amendment to ISO Tariff Appendix Y.

This timetable is important for a number of reasons. First, it will enable parties that will be negotiating LGIAs in the latter part of 2011 to utilize the new provisions, which are intended to be more efficient in that they would incorporate into the ISO pro forma interconnection large interconnection agreement as standard options certain reoccurring provisions that rendered transition cluster LGIAs to be non-conforming agreements, requiring a more lengthy LGIA completion process. Second, it will provide much greater certainty to interconnecting generators regarding FERC's acceptance of these new provisions if they become part of the tariff and pro forma LGIA. Third, it will allow for more timely LGIA execution for ICs that intend

⁴The GIP draft final proposal is posted on the ISO website at <http://www.caiso.com/27d9/27d91299c74670.pdf>.

⁵ 133FERC ¶61,224 FERC Order on RTPP

⁶ The GIP 2 changes that would result from this stakeholder initiative would be incorporated into LGIAs or Small Generator Interconnection Agreements ("SGIAs"), or both, as appropriate.

to qualify for federal American Recovery and Reinvestment Act (ARRA) cash grants by completing required milestones by the end of 2011.

It is important to understand that failure to resolve a topic in time for an August Board decision does not mean indefinite deferral of the item. The ISO is committed to steadily improving its GIP to reflect changes in the industry and the needs of its generation interconnection customers (ICs). The ISO therefore intends to conduct subsequent GIP enhancement initiatives, possibly annually if needed, to keep pace with an electricity sector that is evolving more rapidly than ever before.

The ISO has been focused on interconnection reform and revision for some years. In 2008, the ISO implemented fundamental generator interconnection reforms that, among other things, abandoned the prior serial study approach in favor of a new cluster approach and introduced new financial security provisions intended to reduce the then-existing project backlog and provide developers with greater cost and schedule certainty.⁷ The ISO followed up these reforms in September 2009 with additional modifications that recalibrated the financial security posting provisions to align better with existing economic conditions. In August 2010, the ISO obtained authority to waive financial security postings for network upgrades funded by PTOs.⁸

Most recently, in October 2010, in response to a proliferation of small generation interconnection requests, the ISO filed a proposal to combine its small and large generation interconnection study process into a single cluster study approach, which FERC approved in a December 16, 2010 order. This reform will significantly streamline the overall interconnection study process and provide greater cost and schedule certainty to small generators, which now account for over 3,000 MW of renewable resources in the ISO's current interconnection queue.

Thus, given the large list of potential topics for consideration with stakeholders that could lead to GIP enhancements, the present GIP-2 initiative should not be viewed as the final opportunity to obtain beneficial improvements to the GIP, but only as a significant effort to address the most urgent needs.

3. Stakeholder Process and Next Steps following issuance of this Draft Final Proposal Document

The ISO's timeline below outlines the anticipated stakeholder process timeline. The items in red have been undertaken already; the ISO proposes the timeline of the remaining activities in order to complete the GIP-2 issues and receive a FERC ruling before the end of 2011.

Feb 24, 2011	Post Issue paper
Mar 1	Post agenda and presentation for March 3 meeting
Mar 3	Hold stakeholder meeting
Mar 10	Receive stakeholder written comments on issue paper
Mar 14-18	Work group meetings
Apr 14	Post straw proposal
Apr 26	Post agenda and presentation for April 28 meeting
Apr 28	Hold stakeholder meeting

⁷ *Order Conditionally Approving Tariff Amendment* 124FERC ¶61,292 (September 26, 2008) (generator interconnection reform tariff amendment to study projects in clusters)

⁸ 132FERC ¶61,132 FERC Order on waiver of tariff provisions

May 5	Receive stakeholder comments on straw proposal
May 9-13	Work group meetings
May 27	Post draft final proposal
Jun 1	Post agenda and presentation for June 3 meeting
Jun 3	Hold stakeholder meeting
Jun 10	Receive stakeholder written comments on draft final proposal
Jun 13-17	Work Group meetings
Jun 30	Post revised draft final proposal
Jul 5	Post agenda and presentation for July 7 meeting
Jul 7	Hold stakeholder meeting
Jul 14	Receive stakeholder written comments on revised draft final proposal
Aug 24-25	Present proposal to ISO Board of Governors
Aug & Sep	Work with stakeholders on tariff language
Oct 1	File tariff language at FERC
Dec 1	Order issued by FERC (60 days after Oct 1 filing)

The ISO created a web page for this initiative which is found at the following link:
<http://www.caiso.com/2b21/2b21a4fe115e0.html>.

As noted in the introduction, this draft final proposal offers the ISO's more refined proposals that were developed in the straw proposal phase of the GIP-2 initiative. The immediate next steps, then, are for stakeholders to consider the proposal as well as the detailed descriptions and to offer comments both in the discussion at the June 3rd meeting and in written form by June 10th. The ISO requests that stakeholders comment on the merits of each proposal and any suggestions for improvements with a supporting business case. In all cases the comments will be most useful if parties clearly explain the business rationale for their recommendations. The ISO will consider these comments in preparing its revised draft final proposal for release on June 30th.

In addition to the remaining stakeholder meeting, the ISO intends to continue with one more round of work group meetings to assist with GIP development. These work groups, along with the ISO employee leads, are listed below;

- Work Group 2 - LGIP Queue and Study Process - Bob Emmert, Lead
- Work Group 3 - LGIP Non-Conforming Provisions, Grandfathered Resources and Site Exclusivity - Bruce McAllister & Grant Rosenblum Leads
- Work Group 4 - LGIP/LGIA Interconnection Cost and Security Requirements - Bill Di Capo Lead
- Work Group 5 - LGIP Technical Assessments - Songzhe Zhu, Lead

As mentioned in the introduction, the topics included in Work Group 1, GIP Cost Assessment Provisions led by Lorenzo Kristov, will be rescheduled in accordance with a revised timetable for these topics to be announced in the near future.

Preceding the June 3rd stakeholder meeting the ISO will post a template for stakeholders to use to submit their written comments by June 10th. The template will provide a means to provide comments on each item in this straw proposal.

4. Topics included in this Draft Final Proposal Document

The scope of the draft final proposal includes the following topics. This list includes the items in the straw proposal as well as three new topics raised by stakeholders. The ISO also proposes to revise tariff sections on study deposit and financial security as they refer to outdated tariff sections.

The ISO also proposes a “clean up item” that is not a substantive change but a correction to an erroneous tariff cross reference. GIP tariff sections relating disposition of “forfeited” study deposit and financial security funds cross-refer to a tariff section outside of Appendix Y that, *in turn*, references an outdated tariff section number. That cross reference link is currently broken because it cross-references to the tariff section as designated by its “old, pre-MRTU ISO tariff section” number. The correction to the non-GIP section restores the link by pointing the reader to the section as re-numbered under the “MRTU tariff.”

The following topics are included in the draft final proposal.

1. PTO per-unit cost estimation and methodology for estimating costs of network upgrades and PTO interconnection facilities;
2. Generators interconnecting to non-PTO facilities in the ISO BAA;
3. Triggers for Financial Security Posting Deadlines and modifications to Tariff section 37.9 to manage forfeited Study Deposit funds and to no longer reference Tariff section 11.8.5.3 which no longer exists (new proposal);
4. Clarify definitions of start of construction and other transmission construction phases, and specify posting requirements at each milestone;
5. Improve process for interconnection customers to be notified of their required amounts for Interconnection Financial Security posting;
6. Clarify ISO information provision to assist ICs;
7. Provisions for partial termination of an LGIA or when permitting difficulties hinder a project reaching its studied amount;
8. Reduction in project size for permitting or other extenuating circumstances;
9. Repayment of IC funding for network upgrades associated with a phased generation facility;
10. Clarify site exclusivity requirements for projects located on BLM-administered federal lands;
11. CPUC Renewable Auction Mechanism requirement for projects to be in the interconnection queue;
12. Interconnection Refinements to Accommodate QF conversions, Repowering and other Special Circumstances Associated with Smaller Projects;
13. Behind the meter expansion;
14. Specify appropriate security posting requirements where the PTO elects to upfront fund network upgrades;
15. Revise ISO insurance requirements (downward) in the pro forma LGIA to better reflect ISO’s role in and potential impacts on the three-party LGIA;

16. Standardize the use of adjusted versus non-adjusted dollar amounts in LGIAs – currently different conventions are used by the different PTOs;
17. Clarify the Interconnection Customers financial responsibility cap and maximum cost responsibility;
18. Consider adding a “posting cap” to security postings for the PTO’s Interconnection Facilities;
19. Consider using generating project viability assessment in lieu of financial security postings (new topic section 6.4.6);
20. Consider limiting interconnection agreement suspension rights (new topic section 6.4.7);
21. Consider incorporating PTO abandoned plant recovery into GIP (new topic section 6.4.8);
22. Partial deliverability as an interconnection option;
23. Conform technical requirements for small and large generators to a single standard, and develop study methodology to determine voltage impacts pursuant to FERC’s 2010 order on ISO’s proposed new interconnection standards;
24. Revisit tariff requirement for off-peak deliverability assessment;
25. Annual updating of ISO’s advisory course for partial deliverability assessment; and
26. Post Phase II reevaluation of plan of service (new topic section 6.5.5).

5. Changes from Straw Proposal to Draft Final Proposal

Work Group 1 – The GIP-TPP integration and cost assessment provisions are being taken out of the GIP-2 scope; the ISO will provide a revised schedule for addressing these topics in the near future. The last paragraph in section 6.1 contains new text explaining this change in the process.

Work Group 2 – Two new items are being proposed to address revisions to Phase 1 and Phase 2 study reports and to address stakeholder comments regarding the third posting of financial security. Also based on stakeholder comments, the ISO will develop BPM language to provide increased transparency in the study process. A tariff clean-up item is being added to section 6.2.3 to manage the disposition of forfeited study deposit funds by replacing a reference to a tariff section that is outdated.

Work Group 3 – The proposed partial termination provisions are essentially unchanged with an additional clarification on the calculation of the multiplier and the removal of one criterion from the eligibility requirements. The holdback provision was removed for repayment of IC funding of network upgrades, and additional clarification added to what constitutes commercial operations. This item still needs further development, however, and will be discussed in the next round of stakeholder meetings. Additional conditions were added for project size reductions due to permitting, but the prior proposal of a five percent safe harbor remains the same. The ISO has also changed its proposal from the straw version to allow any project to increase the size by up to 5 MW as long as the project can pass the screens in ISO Tariff, Appendix Y section 5.3.3.

Work Group 4 – Three new topics were included in work group 4. Two are from the proposal SCE presented at the last stakeholder meeting, i.e., suspension provisions and abandoned

plant cost recovery. A third new topic raised by several stakeholders, considering the use of generation project viability in lieu of financial security postings, was also included in this work group. At the straw proposal stage, the ISO did not have a proposal to alter the financial posting amounts for the PTO's Interconnection Facilities. For the draft final proposal, the ISO proposes to modify the financial security posting requirements for PTO's Interconnection Facilities to mirror the posting amounts required for Network Upgrades. The ISO also proposes that the "escalation factors" used for time-adjusted dollar calculations be standardized across the PTOs

Work Group 5 – The ISO proposes to add a third partial deliverability (PD) option, in addition to the existing full capacity (FC) and energy only (EO) deliverability options, to allow generators additional flexibility, as well as an additional opportunity to change status from PD to EO. With regard to the ISO's straw proposal to perform the course of construction advisory deliverability assessment on an annual basis, the ISO now proposes that the next year assessment could be used for the ISO's annual NQC process for the next RA Compliance Year, but the results for the rest of the future years would still be advisory and provided for informational purpose only. A topic from SCE's proposal, post-Phase II reevaluation, was added to this work group.

6. Comments on Straw Proposal

The ISO released its GIP 2 straw proposal on April 14, 2011. Comments on the issue paper were due May 5, 2011. The comment template posted by the ISO asked stakeholders to rate each one of the topics under consideration and provide other suggested topics. The following companies provided comments on the issue paper: BAMx ("Bay Area Municipal Transmission Group"), Calpine, CalWEA ("California Wind Energy Association"), LSA ("Large-scale Solar Association"), Clean Coalition, Energy Producers and Users Coalition, California Municipal Utilities Association ("CMUA"), Cogeneration Association of California, CPUC ("California Public Utilities Commission"), Division of Rate Payer Advocates, CPUC, First Solar, Invenergy, GenOn, Modesto Irrigation District, Ormat, PG&E ("Pacific Gas & Electric"), Recurrent Energy, SCE ("Southern California Edison"), SDG&E ("San Diego Gas & Electric"), Sacramento Municipal Utility District, Sempra Generation, Six Cities, and Wellhead.⁹

6.1. Work Group 1 Comments – GIP Cost Assessment Provisions

As discussed in the introduction the ISO has decided to remove these work group topics from the scope of the GIP-2 initiative and will address them with stakeholders in a parallel process on a separate timetable, to be announced in the near future. For this reason we are not providing a summary of stakeholder comments on these topics in this draft final proposal. The stakeholder comment summary for these topics will be included when the ISO releases its first paper in the new initiative process.

⁹ The ISO notes that CalWEA expressed that its organization represented some 34 members and that this fact should be considered in the weighting. The ISO responded in its March stakeholder conference call meeting that the ISO had not used the weighting as any sort of strict formula in determining what issues would be in the initial scoping effort, but rather as a general guideline.

6.2. Work Group 2 Comments - Queue and Study Process

Stakeholder Input: PG&E & SCE, Ormat, CalWEA and LSA agree that the BPM is the appropriate venue for improving the process for interconnection customers to be notified of their required IFS posting. SDG&E suggests and supports development of a procedure to alleviate confusion as experienced in the most recent security postings following Cluster 2 Phase I. Stakeholders support generators interconnecting to non-PTO facilities that reside inside the ISO Balancing Area Authority (BAA). Invenenergy states there needs to be a distinction between projects that have already entered into agreements with a PTO for third-party affected System Impact Studies such that the deposit requirements should be reduced from the standard interconnection fee structure to bring it in line with the reduced scope of work. PG&E generally agrees with the CAISO's proposal to the extent that the CAISO does not pursue or delays consideration of its Network Upgrade Cost Responsibility proposal, then such network upgrades should be funded by the generator and refunded like other generators. The Six Cities support the ISO's proposal and note the process should include provisions for close coordination with the affected non-PTO and should require the prospective interconnection customer to fund all necessary ISO study costs.

Stakeholders suggested many improvements to establish triggers for deadlines on IC financial security postings. Calpine proposes to increase the publication date of the final report from 30 days to 45-60 days and also suggests that the CAISO also consider a "materiality" limit as well – such as Network Upgrades increase by 5 percent AND total Network Upgrades are at least \$1 million in the revised study. First Solar asserts errors or omissions which are not acknowledged by either CAISO or the PTO cannot serve as the basis for a delay in the financial security posting date. Wellhead believes the IC needs to have a reasonable time period to make right sizing decisions at the end of the Phase 1 report and suggests allowing 14 calendar days after the final Phase 1 Report is provided to the IC for such decisions. SCE believes that the CAISO has created an inordinately complex Draft/Final study process for both Phase I and Phase II study reports that SCE rejects as too cumbersome to implement at the high volumes of interconnection requests that continue to be submitted. SDG&E suggests the tariff language should be reworded to include the term "best efforts", "The ISO, PTO and IC will use best efforts to issue a draft final GIA to the IC 120 calendar days after the ISO issues the draft Phase II report to the IC." SDG&E also suggests that if the GIA negotiations extend beyond the 120 calendar days per the GIP tariff, the PTO should be allowed to charge the IC for the efforts that extend beyond the 120 calendar days.

Stakeholders also provided suggestions on clarifying definitions of start of construction and other transmission construction phases, and specify posting requirements at each milestone. Calpine believes the ISO may want to establish a "materiality" limit first (such as a total remaining security requirement of \$5 million). For instance, if Network Upgrades are \$10 million, and \$2 million will be spent in the first year, if the LSE does not need the \$8 million for a year or more, there is no reason for the posting. PG&E believes that the current definition for "start of construction" is adequate, and that such information should be, if it is not already, outlined in the milestones section of the generator interconnection agreement. PG&E cautions that quite often commitments for the purchase of major electrical equipment or land do not occur in discrete phases as envisioned in the CAISO's straw proposal. SCE states that PTOs do not break down IC financial responsibility per segment/phase of a transmission upgrade and that taking additional planning/engineering resources to perform this breakdown would be an additional unnecessary drain on resources. The Six Cities do not support allowing construction of a project to begin before full funding is secured due to the risk to transmission customers as

well as to other interconnection customers that also are relying on completion of the project. SDG&E is not aware that any confusion about the definition of the start of construction exists.

Stakeholders were supportive of the ISO to review the unit cost structure. SCE supports the use of a common format for unit cost guides between the three PTOs and already supplies a detailed explanation of how it applies the “factors” to its unit costs to arrive at final cost estimates. SCE believes that differences between PTOs in how factors are applied should be allowed, as long as the differences are reasonable. CalWEA & LSA state the CAISO should more actively manage this process by noting where the posted costs differ significantly between PTOs for the same equipment and work with the PTOs to either explain those differences or resolve them. They also suggest tariff revisions to clarify “anticipated” costs to state that realistic, expected costs, not the maximum that can conceivably be justified.

For the Information provided by ISO topic, SMUD noted in comments they believe further coordination with Affected Systems is paramount to determine the impacts of proposed interconnection projects. They state the ISO should ensure the interconnection process complies with WECC and NERC standards. They also would like the ISO to provide the technical study reports included in Phase 1 and Phase 2 studies when requested by adjacent Transmission Planners through a secure website. The Clean Coalition appreciates ISO’s stated willingness to work with stakeholders to improve data transparency and understand the ISO has some limitations imposed by CEII issues but CEII issues can be respected while also allowing far more sharing than ISO currently practices. Clean Coalition also cites PacifiCorp’s extensive sharing of interconnection information as a good example for ISO to emulate.

6.3. Work Group 3 Comments – Non-Conforming Provisions

Stakeholder Input: SunPower supports the ISO allowing projects to be phased under certain conditions. They note that large projects with extensive transmission upgrades and build out times may encounter financing and development hurdles without the ability to phase the projects. PG&E believes that projects should utilize multiple interconnection requests and that an option to downsize a project could result in a transmission plan that overbuilds. PG&E does support limited partial termination but only up to 10% and would combine this proposal into the reduction in project size due to permitting topic as one all-inclusive option.

Sempre is concerned that although partial termination provisions are a means to prevent the ISO from terminating projects under certain conditions - this raises the possibility the ISO could terminate projects if they do not build the full amount as stated in the LGIA. Other stakeholders also raised this concern and although this issue is not being addressed in this initiative, the ISO states that each LGIA is fact specific with unique circumstances and that any deviation from the full amount to be constructed would be handled based on those unique facts that are related to the project and would be addressed on a case by case basis.

Most stakeholders supported the ISOs effort to repay ICs funding of network upgrades for phased projects once they become operational. LSA and CalWEA support but add the ISO should remove terms that all upgrades must be in service and also that non-phased projects be allowed to use this service. The ISO has added a new step five to this section in 6.3.3 which places LGIA terms for what needs to be in service. It is not anticipated projects will develop partial termination provisions in the LGIA until the Phase 1 studies are completed and thus any project meeting the criteria will be able to qualify for these provisions.

6.4. Work Group 4 Comments - Interconnection Cost and Security Requirements

Stakeholder Input: Overall, stakeholders were supportive of the ISO making permanent the terms of a waiver petition to not require posting requirements when the PTOs volunteer to upfront finance network upgrades. First Solar supports and adds it is important to also consider milestones can be monitored to when this occurs. CalWEA, LSA and SCE also support making the waiver petition permanent. Stakeholders also supported the ISO revising ISO insurance requirements to avoid unnecessary posting obligations. Wellhead, First Solar and others recommended the ISO only require proof of insurance when noted by development milestones. The ISO agrees and will add provisions that adjust the timing of some of the insurance requirements, so that evidence of insurance connected with potential construction activity is not required until prior to entry onto construction sites. Stakeholders were supportive of the ISO adding provisions to clarify that the IC's maximum costs responsibility is the lower of the Phase 1 or Phase 2 study estimates.

6.5. Work Group 5 Comments – Technical Assessments

Stakeholder Input: Stakeholders were interested in several topics in this work group. Namely, adding options to allow a resource to select partial deliverability after the Phase 1 study and also to have some certainty regarding the advisory deliverability studies that are conducted during the fall. Calpine supports partial deliverability as an option for IC projects that face substantial network upgrades as well as an option to change the status from Energy Only to Full Capacity status. PG&E supports the additional option as well but further suggests the ISO only assign NQC that is based on the determined amount of partial deliverability the IC requested. CalWEA, LSA and Ormat support the proposal to add additional options for partial deliverability. The ISO has developed the proposal based on these comments and will offer these options to ICs.

For the advisory study, many stakeholders asked the advisory study become an annual process and others asked the ISO to provide a means to convert the advisory study results into actual NQC. PG&E supports the ISO to make available actual NQCs as a result of the advisory study. Wellhead supports but cautions the ISO to ensure there are no free riders and that earlier queued projects not adversely impact later queue projects. SCE is also concerned about the free rider issue that subsequent ICs requesting transmission service could receive FC status. CalWEA and LSA note the advisory assessment will not be of any value to customers unless the ISO works with the CPUC to allow partial deliverability to count towards RA requirements. The ISO has committed to performing the partially deliverability assessment annually and also allow the advisory values to count as NQC if the assessment is still valid when the assessment is conducted for the next RA compliance year.

6.6. Stakeholder Participation

Southern California Edison provided the ISO with three proposals regarding a post Phase II analysis, LGIA suspension provisions and modifications to abandoned plant cost recovery. The ISO has addressed all three of these in the work group 4 and 5. In addition, enXco proposed an additional topic that a project should be able to prove project viability in lieu of posting financial security, and that is discussed in work group 4.

6.7. Topics ISO plans to address through BPM Process or Tariff Amendment for August Board Meeting

Section 6.2.1 - BPM
Section 6.2.2 - Tariff
Section 6.2.3 - Tariff
Section 6.2.4 - Tariff
Section 6.2.5 - BPM
Section 6.2.6 - BPM

Section 6.3.1 - Tariff
Section 6.3.2 - BPM
Section 6.3.3 - Tariff
Section 6.3.4 - BPM
Section 6.3.5 - BPM
Section 6.3.6 - BPM

Section 6.4.1 - Tariff
Section 6.4.2 - BPM
Section 6.4.3 - BPM
Section 6.4.4 - BPM
Section 6.4.5 - BPM
Section 6.4.6 – N/A
Section 6.4.7 – N/A
Section 6.4.8 – N/A

Section 6.5.1 - Tariff
Section 6.5.2 - BPM
Section 6.5.3 - BPM
Section 6.5.4 - Tariff
Section 6.5.5 - BPM

7. GIP-2 Draft Final Proposals

This section presents the ISO's draft final proposals for the GIP 2 topics listed above, listed by work group.

7.1. Work Group 1 – GIP Cost Assessment Provisions

The two topics that comprise this work group represent a continuation of the effort begun last year to better integrate the generator interconnection procedures (GIP) and the transmission planning process (TPP). Until 2010 these two processes were essentially separate and parallel with little provision for coordination between the two beyond each one recognizing in its assumptions the transmission upgrades approved by the other. This did not present much of a problem in the context for which these processes were designed, where the GIP and TPP only needed to respond to relatively steady, predictable growth in load and incremental changes to

the supply fleet. But then a few years ago California enacted ambitious environmental policy mandates that called for dramatic changes to the supply fleet within a decade, triggered a wave of commercial activity to build renewable resources, and quickly exposed the need to revise both the GIP and the TPP and to be able to accommodate these rapid changes.

Three important developments occurred during 2010 that recognized these new needs and made substantial progress towards integrating the GIP and TPP. First, the ISO conducted the Revised Transmission Planning Process initiative (RTPP), which culminated in FERC's December 16, 2010 order approving the ISO's filed RTPP proposal. The ISO's newly approved TPP features three new elements explicitly relevant to GIP-TPP integration.

- The new TPP created a “public policy-driven” category of transmission elements that enables the ISO to identify and approve additions and upgrades needed to meet state and federal policy requirements. This TPP innovation derived from the recognition that the driver of the majority of new transmission over the next decade would be California's mandate to meet 33 percent of its electricity demand from renewable resources by 2020 (the “33% RPS”), and that the traditional reliability and economic project categories would not provide a sufficient basis for planning needed upgrades. Notably, in its order on the RTPP FERC expressed the view that the policy-driven category could and should obviate the need for many GIP-driven upgrades.
- The new TPP provides explicit provisions to reevaluate significant network upgrades that are identified in GIP Phase 2 cluster studies and are not yet committed to in executed LGIAs, to determine whether enhanced or alternative transmission facilities could meet the needs of the interconnection customers more cost-effectively while addressing other grid needs at the same time. (This feature of the TPP is the stimulus for the second of the two topics taken up by Work Group 1 of the GIP 2 initiative, discussed below.)
- The new TPP clearly lays out the criteria for distinguishing the public policy-driven from the other categories of transmission additions and upgrades, places ISO planners in the central role of producing an annual comprehensive plan that addresses all categories of needs for the ISO balancing authority area (BAA), requires that the comprehensive plan go to the ISO Board for approval, and then conducts a competitive process for independents and incumbents to bid to build and own rate-based policy-driven and economic projects.

The second key development during 2010 was FERC's issuance of a notice of proposed rulemaking on transmission planning (NOPR), which addressed many of the same issues that the ISO's RTPP filing addressed. Among other things, the NOPR identified the need for transmission providers to develop a new public policy-driven category of transmission additions and upgrades in their planning processes, and described how this new category should enable transmission providers to develop transmission to meet the needs of renewable generation projects more cost-effectively through their planning processes than by having network upgrades arise from their generator interconnection procedures.

The third key development was the ISO's 2010 GIP stakeholder initiative (now referred to as “GIP 1” since we are engaged in “GIP 2”). Among other important reforms to streamline the GIP, this initiative created a multi-year timeline with specific interface points between the GIP and the TPP. Specifically, the GIP 1 established an annual cycle for the next several rounds of cluster windows for submission of interconnection requests and the associated GIP Phase 1 and Phase 2 cluster studies, such that the Phase 2 cluster studies would feed into the TPP each year approximately in August, and the Comprehensive Transmission Plan would feed into the assumptions of the GIP cluster study process each year approximately in March. One result of

the coordination of GIP and TPP timing developed in the GIP 1 is that it will support the further integration of the GIP and the TPP as described below.

The two topics identified for Work Group 1 are closely interrelated aspects of improving the integration between the GIP and the TPP. The ISO offers the following objectives for these two topics, and requests that stakeholders comment on these and identify other objectives they believe should be added to this list.

1. Integrate the GIP and the TPP as far as possible so that decisions to approve new rate-based transmission rates can be based on a comprehensive planning approach that addresses all the needs of the transmission system holistically and thereby makes most cost-effective use of ratepayer funding.
2. Rely more on the TPP and less on the GIP as the venue to identify and approve new rate-based transmission. FERC highlighted this objective in its transmission planning NOPR and its 2010 decisions on the ISO's RTPP filing and the Midwest ISO's transmission planning filing, specifically in the context of its discussion of the public policy-driven category of transmission projects.
3. Provide incentives through appropriate cost allocation for developers of new resources to select the most cost effective grid locations for interconnection.
4. Limit the potential exposure of transmission ratepayers to the costs of building transmission additions and upgrades that are under-utilized.
5. Provide greater certainty to developers of new generation resources that the network upgrades they need will be approved for siting by the CPUC and other siting authorities by utilizing the provisions of the ISO's new TPP to support the need for these upgrades. In this regard, one specific TPP component that appears to be highly relevant is the least regrets approach to identifying policy-driven upgrades based on finding the upgrades needed in multiple feasible resource scenarios.

Based on the last round of work group meetings and our review of stakeholder comments, the ISO has determined that these topics should be taken out of the GIP-2 scope and addressed in a separate initiative with its own timeline. This decision is based solely on the complexity of the topic, the multitude of sub-issues to be addressed, and the critical importance of developing a workable, sustainable process that meets the needs of all stakeholders and best serves the interests of ratepayers. In modifying the process and timeline for this initiative, ISO does not intend to diminish its priority or urgency. As such the ISO will shortly issue a revised schedule of stakeholder activities leading to the presentation of the ISO's proposal to its Board of Governors by December 2011 and filing at FERC shortly thereafter.

7.2. Work Group 2 - LGIP Queue and Study Process

7.2.1. PTO per-unit cost estimation and methodology for estimating costs of network upgrades and PTO interconnection facilities

Some stakeholders have expressed the opinion that the per-unit cost estimates and cost-estimation methodologies provided by PTOs under the cluster process yield cost estimates that are too high and thus result in overstatement of costs. These parties have suggested that there should be further exploration of and transparency into cost estimation methodology for PTO cost estimation. These stakeholders have asked that the ISO conduct a stakeholder event to discuss cost estimation methodologies used by the PTOs.

During the 2010-11 annual per-unit cost stakeholder meeting and in the WG-2 teleconference meetings, a number of concerns were raised and requests made that merit further investigation and possible process revision pertaining to PTO cost estimation. The ISO will work with the PTOs to implement and incorporate refinements into the annual per-unit cost process, and document these refinements within the GIP BPM being developed by the ISO during 2011. An outline of the anticipated changes and enhancements includes the following points:

- 1) All PTOs should use a common format for presenting per unit cost information so it is easier to do cross comparisons. The ISO and the PTOs will work together to develop a common per-unit cost template for presenting the annual per-unit cost information.
- 2) The PTOs should provide more explanation of various components of their per-unit cost process. Examples of this include:
 - a) Providing discussion of the reasons for higher and lower mitigation factors.
 - b) Providing more information on how the levels for contingencies are determined.
- 3) Common methodologies for cost factors. Various factors are used to increase the cost of upgrades due to external factors. One such instance is the use of mitigation factors based on classes of terrain where the transmission is to be built. The PTOs should agree to a common methodology for applying factors in a consistent manner, to reduce confusion in comparing one PTO's costs to another's.
- 4) If in the process of developing estimates of the costs for upgrades for any specific generation project, a PTO has the ability to estimate transmission upgrade costs more accurately due to the existence of a similar transmission project that has recently been built (in other words, a comparable project), then the costs associated with the comparable project should be used as a basis for that PTO estimation of costs for the specific project instead of using per-unit costs. A discussion of this option should be included in the PTO per-unit cost guide. Furthermore, when this option is used in a Phase II cost estimation process, the fact that this option has been used should be documented in the Phase II study results report along with any pertinent information regarding the comparable project whose costs were used.

ISO final proposal:

Based on the comments received on the straw proposal and having no additional comments received in the working group meeting, the ISO proposes that it has enough information and agreement from stakeholders to work with the PTOs to make refinements to the annual per-unit cost process. The refinements will be open for further review by stakeholder within the GIP BPM process which is anticipated to be completed by the ISO during 2011.

7.2.2. Generators interconnecting to non-PTO facilities in the ISO BAA

This situation can occur where a generator is connecting to the transmission facilities of a non-PTO located inside the ISO BAA (e.g., a municipal utility), and the generator wishes to obtain full capacity deliverability status for the purpose of providing RA capacity to an ISO LSE. Currently the GIP is structured for generators connecting directly to the ISO Controlled Grid. While currently only a small number of projects are interconnecting to non-PTO LSE systems (non-ISO controlled, sub-transmission), the ISO proposes that an ISO process should be put in place that is comparable to the GIP to allow the ISO to conduct studies for these projects and allow the interconnection customer to up-front fund the needed deliverability network upgrades

on the ISO grid and receive full capacity deliverability status for purposes of providing RA capacity to the LSE within the ISO controlled grid.

In the GIP stakeholder process last year, the ISO included tariff language to authorize the ISO to conduct deliverability assessments for WDAT interconnection customers who seek deliverability to the aggregate of load on the ISO Controlled Grid.¹⁰ The ISO proposes to create similar authority for the ISO to conduct deliverability studies, and for the customer to fund and have constructed the deliverability upgrades on the ISO-controlled grid, in the situation of a generator interconnecting to non-PTO facilities when that non-PTO entity is situated within the ISO BAA. Under the proposed approach, the generator would submit an application to the ISO (along with any required request to the non-PTO entity) to be studied for full capacity deliverability service only if that generator has met certain criteria.

ISO final proposed criteria:

- 1) The non-PTO LSE includes the ISO as a participant in the non-PTO entity's interconnection study process; the ISO would be considered to be an affected system. If the non-PTO interconnection process does not provide for the ISO to participate in a study process which, among other things, ensures that there is adequate transmission on the non-PTO's transmission system for the project to be deemed fully deliverable to the point of delivery to the ISO system, then the project would not qualify to be studied for full deliverability and to have deliverability network upgrades built under this proposal for full deliverability on the ISO system. The ISO will determine on a case by case basis what information is needed to determine whether the project has secured firm transmission on the non-PTO's system and it is at the ISO's sole discretion to determine if the requirement for full deliverability to the ISO point of deliverability has been met.
- 2) All new projects under this section would be required to submit a study request (versus an interconnection request) to the ISO, similar to an interconnection request, with the same deposit and Interconnection Financial Security posting requirements as an interconnection customer, during the queue cluster open window periods. If a project has studies with the ISO currently in progress, the project's deposit requirement would be net of funds already collected by the ISO for any relevant study costs.
- 3) The ISO would study the project for deliverability network upgrades as part of the Phase I and Phase II cluster study process along with other projects and the project would be allocated costs for deliverability network upgrades in the same manner as other projects in the cluster study group the project is assigned to.

¹⁰ Section 8.3 of Appendix Y states "To the extent that a Participating TO's tariff provides the option for customers taking interconnection service under the Participating TO's tariff to obtain Full Capacity Deliverability Status, the ISO will, in coordination with the applicable Participating TO, perform the necessary deliverability studies to determine the deliverability of customers electing such option. The CAISO shall execute any necessary agreements for reimbursement of study costs it incurs and to assure cost attribution for any Network Upgrades relating to any deliverability status conferred to such customers under the Participating TO's tariff."

7.2.3. Triggers for Financial Security Posting Deadlines

The current GIP provides that the final Phase I study starts the 90-day clock for the IC to make the first financial posting, and the final Phase II report starts the 180-day clock for making the second posting. Because of issues recently raised during LGIP transition cluster processing regarding what constitutes a “final” study report, the ISO has explored with stakeholders whether to further clarify or modify the triggers that establish the financial security posting deadlines. When the ISO performed the first round of interconnection studies for the LGIP transition cluster, the ISO found that, in certain circumstances, it became necessary to revise the final study report. However, in the assessment of the ISO, not every report revision would trigger an extension of the posting deadline; rather only revisions which caused certain substantive effects would do so.

The current ISO criteria for when a revision to a final report extends the posting time is as follows:

If ISO or PTO execution of the Phase II study resulted in a report that includes errors or omissions, and the necessary updates to the report resulted in either:

- (1) The interconnection customer's estimated interconnection costs were increased (either network upgrades or Participating TO interconnection facilities); or
- (2) A delay to the in-service date of required network upgrades or interconnection facilities that results in an expected delay to the commercial operation date of the proposed generating facility.

Then the date of the final Phase II study report will be revised and the corresponding financial security posting date will be adjusted accordingly.

Any other changes to the final Phase II study report will not result in a change in the date of the report or the corresponding financial security posting date.

Currently the GIP does not provide a mechanism for interconnection customers to preview a *draft* study report before it is issued as final. When the cluster process was initially created, the thinking was that the time period to complete the individual study reports was too tight to afford time for a draft and then a final report. However, in the GIP 2 process, a number of stakeholder comments included requests to review a draft report, to allow the customers opportunity to make comments on the report earlier than during the results meeting which follows issuance of the final report. The ISO notes that the time for completion of the study reports has been shortened in last years' GIP Amendment from the period originally provided, making the turn-around time for a report even tighter. However, the ISO recognizes that the preview option merits further investigation as a possible process revision. The current GIP timeline does not have room for inserting an additional step that adds time to the overall process.

ISO final proposal:

Following review of comments on the straw proposal and discussions of the working group the ISO revised its proposal to include the following adjustments to the GIP.

Phase I Posting

Current Process:

- IC posts 90 calendar days after publication of the final Phase I study report.

Proposed Process:

1. The ISO issues the final Phase I study report to the ICs in accordance with the current tariff requirements.
2. If the IC proposes any revisions to the report the IC shall provide written comments within ten business days of receipt of the report, but in no case less than five business days before the ISO scheduled results meeting.
3. ISO and PTO will address the IC comments to the report during the results meeting.
4. The IC may submit follow up comments within three business days after the results meeting.
5. ISO and PTO determine whether the final report needs to be amended. If the report needs to be amended, an amended report will be issued ten business days after the results meeting.

The security posting is due 90 calendar days after the (initial) final report was issued. See below discussion on limited extensions for financial security postings.

Phase II Posting

Current Process:

- IC posts 180 calendar days after publication of the final Phase II study report.

Proposed Process:

1. The ISO issues the final Phase II study report to the ICs in accordance with the current tariff requirements.
2. If the IC proposes any revisions to the report the IC shall provide written comments within ten business days of receipt of the report, but in no case less than five business days before the ISO scheduled results meeting.
3. ISO and PTO will address the IC comments to the report during the results meeting.
4. The IC may submit follow up comments within three business days after the results meeting.
5. ISO and PTO determine whether the final report needs to be amended. If the report needs to be amended, an amended report will be issued ten business days after the results meeting.
6. The security posting is due 180 calendar days after the initial final report was issued. See below discussion on limited extensions for financial security postings.

**PROPOSED NEW TARIFF SECTION – Phase I and Phase II Final Report
Revisions**

Conditions warranting a revised report; substantial error or omission: The ISO shall cause a revised report to be issued following the publication of a final Phase I or Phase II study report, only if it is discovered, following issuance of the report, that the report contains a substantial error or omission. The revised final report date shall contain an initial final report date and a revised final report date. The issuance of a revised report, in and of itself, shall not trigger a postponement of the deadline for the interconnection customer to post the interconnection financial security pursuant to Section 9. A substantial error or omission shall mean any error or omission that changes the cost by a minimum percentage of the either the network upgrades or Participating TO interconnection facilities by more than 1% or \$1,000 dollars, or delays by more than 90 days the schedule that the proposed generating facility can obtain commercial operation. Any other errors discovered in the final Phase I or Phase II study report shall be considered to be non-material and will not result in the issuance of a revised report.

No interconnection customer-initiated change to a Phase 1 or Phase II final study report (other than requesting correction of an error or omission that the ISO has determined constitutes a substantial error or omission that results in one or more of the limited conditions resulting in postponing the interconnection financial security deadline under the paragraph below shall operate to delay the deadline for posting the interconnection financial security deadlines set forth in GIP Section 9. However, the PTO and the ISO will use reasonable efforts to clarify any errors or omissions in a final report that do not constitute a substantial error or omission.

An interconnection customer customer's disagreement as to whether a requested change constitutes a substantial error or omission shall not operate to postpone the deadline to post interconnection financial security. In case of such dispute, the interconnection customer shall post the amount of interconnection financial security determined by the application of GIP Section 9 to the final report, subject to refund in the event that the interconnection customer is the prevailing party following adjudication of such dispute.

Limited conditions postponing interconnection financial security deadline;

Issuance of a revised study report which shall operate to postpone the deadline that the Interconnection Customer is required post financial security only when the substantial error or omission causes one or more of the following results

- (1) The substantial error or omission increases an interconnection customer's estimated interconnection costs (either network upgrades or Participating TO interconnection facilities) by at least 5 percent.
- (2) The substantial error or omission reduces an interconnection customer's estimated interconnection costs (either network upgrades or Participating TO interconnection facilities) by at least 20 percent.
- (3) The substantial error or omission that delays the in-service date of required network upgrades or interconnection facilities that results in an

expected delay to the commercial operation date of the proposed generating facility by at least one year

If the substantial error or omission has resulted in any of the results described above, the revised report shall contain the notice that “*This revised final report has triggered one or more of the limited conditions that postpones the interconnection customer’s deadline to post the next financial security instrument.*”

An interconnection customer customer’s disagreement as to whether a substantial error or omission brings about any of the limited conditions above postponing the interconnection financial security deadline shall not operate to postpone the deadline to post interconnection financial security. In case of such dispute, the interconnection customer shall post the amount of interconnection financial security determined by the application of applicable deadline set forth in GIP Section 9 to the final report, subject to refund in the event that the interconnection customer is the prevailing party following adjudication of such dispute.

Length of postponement of posting deadline If a final study report is revised due to a substantial error or omission and the change in the report meets any of limited conditions [of the section above], then the deadline for the interconnection customer to required to post the next interconnection financial security shall be extended to the later of:

1. For a Phase I report, 90 calendar days after issuance of the original final Phase I study report, or 40 calendar days after the issuance of the revised report.
2. For a Phase II report, 180 calendar days after issuance of the original final Phase II study report, or 60 calendar days after the issuance of the revised report.

In conjunction with this proposal, the ISO also proposes to extend somewhat the time frame for parties to complete the negotiation and execution of the interconnection agreement. T the current tariff that states that the ISO, PTO and the IC have 90 calendar days after the final Phase II report is published to negotiate a Generation Interconnection Agreement (GIA). The ISO proposes that this be revised to provide another thirty days to complete the task. According, the ISO proposes changing the existing tariff language to state that “The ISO, PTO and the IC will exercise reasonable efforts to negotiate a GIA¹¹ within 120 calendar days after the draft Phase II report is released to the IC.

New Item: proposal to correct a broken link to a cross-reference in the tariff - The ISO has recently negotiated a few LGIAs which have referenced outdated tariff sections on the disposition of forfeited funds. The following changes are being proposed to update the tariff;

- Replace reference in Tariff section 37.9.4 of 11.8.5.3(b) (does not exist in Tariff) to section 11.29.9.6.3

The background for this correction is as follows:

¹¹ <http://www.caiso.com/2b53/2b53950f1cf40.pdf> Section 11.2 Negotiation

The pertinent GIP provisions that govern ISO disposition of “forfeited funds” resulting from interconnection customer withdrawal are as follows:

Handling of forfeited Study Deposit funds:

3.5.1.1 Use of Interconnection Study Deposit.

All non-refundable portions of the Interconnection Study Deposit that exceed the costs the CAISO, Participating TOs, or third parties have incurred on the Interconnection Customers behalf shall be treated in accordance with *CAISO Tariff Section 37.9*.

Handling of forfeited Interconnection Financial Security funds:

9.4.2.6 Notification to CAISO and Accounting by Applicable Participating TO(s).

The applicable Participating TO(s) shall notify the CAISO within one (1) Business Day of liquidating any Interconnection Financial Security. Within twenty (20) calendar days of any liquidating event, the applicable Participating TO(s) shall provide the CAISO and Interconnection Customer with an accounting of the disposition of the proceeds of the liquidated Interconnection Financial Security and remit to the CAISO all proceeds not otherwise reimbursed to the Interconnection Customer or applied to costs incurred or irrevocably committed by the applicable Participating TO(s) on behalf of the Interconnection Customer in accordance with this LGIP Section 9.4. All non-refundable portions of the Interconnection Financial Security remitted to the CAISO in accordance with this LGIP Section 9.4 shall be treated in accordance with *CAISO Tariff Section 37.9.4*.

These sections refer the reader to the ISO provisions for disposition of penalty funds, with is contained in another portion of the ISO tariff outside of the GIP:

37.9.4 Disposition of Proceeds

The CAISO shall collect penalties assessed pursuant to this Section 37.9 and deposit such amounts in an interest bearing trust account. *After the end of each calendar year, the CAISO shall distribute the penalty amounts* together with interest earned through payments to *Scheduling Coordinators as provided herein*. For the purpose of this Section 37.9.4, "eligible Market Participants" shall be those Market Participants that were not assessed a financial penalty pursuant to this Section 37 during the calendar year.

Each Scheduling Coordinator that paid GMC during the calendar year will identify, in a manner to be specified by the CAISO, the amount of GMC paid by each Market Participant for whom that Scheduling Coordinator provided service during that calendar year. The total amount assigned to all Market Participants served by that Scheduling Coordinator in such calendar year (including the Scheduling Coordinator itself for services provided on its own behalf), shall equal the total GMC paid by that Scheduling Coordinator.

The CAISO will calculate the payment due each Scheduling Coordinator based on the lesser of the GMC actually paid by all eligible Market Participants represented by that Scheduling Coordinator, or the product of a) the amount in the trust account, including interest, and b) the ratio of the GMC paid by each Scheduling Coordinator for eligible Market Participants, to the total of such amounts paid by all Scheduling Coordinators. Each Scheduling Coordinator is

responsible for distributing payments to the eligible Market Participants it represented in proportion to GMC collected from each eligible Market Participant.

Prior to allocating the penalty proceeds, the CAISO will obtain FERC's approval of its determination of eligible Market Participants and their respective shares of the trust account proceeds. If the total amount in the trust account to be so allocated exceeds the total GMC obligation of all eligible Market Participants, then such excess shall be treated *in accordance with Section 11.8.5.3(b)*.

This last cross-reference is no longer current. Section 11.8.5.3(b) was renumbered when the ISO tariff was revised in accordance with the new market design (formerly known as "MRTU"). Section 11.8.5(b) was renumbered and is now designated as Section 11.29.9.6.3.

7.2.4. Clarify definitions of start of construction and other transmission construction phases, and specify posting requirements at each milestone

Some customers have requested that the phrase "start of construction activities," which triggers the third posting of financial security, be more precisely defined and that the 100% posting requirement for start of construction be phased so that separate and discrete postings can be made for certain regularly-defined discrete components of the transmission upgrade construction process.

Construction Activities is a defined term in the ISO Tariff, as stated below.

*Actions by a Participating TO that result in irrevocable financial commitments for the purchase of major electrical equipment or land for Participating TO's Interconnection Facilities or Network Upgrades assigned to the Interconnection Customer that occur after receipt of all appropriate governmental approvals needed for the Participating TO's Interconnection Facilities or Network Upgrades.*¹²

The interconnection network upgrades for a project can consist of multiple components and or multiple phases of a single large transmission project. The ISO understands the concerns an IC can have if the language is read to mean that *all* (100%) of the third posting becomes due when construction activities start for just one component of the required network upgrades. The circumstances could be such that other, large dollar components of the full upgrade build-out may not start until some later time. The ISO proposes to add the following paragraph to section 9.3.2 "Third Posting of Interconnection Financial Security" of Tariff Appendix Y. Based on stakeholder comments the ISO believes the additional language is all that is needed to, in essence, communicate to Interconnection Customers the ability to work this issue into the interconnection agreement process that is current tariff already allows.

If an Interconnection Customer's network upgrades can be separated into two or more separate and discrete projects or project phases (discrete components) and the Participating TO is able to identify and separate the costs of the identified discrete

¹² California Independent System Operator Corporation, Fifth Replacement FERC Electric Tariff, Appendix A, Master Definition Supplement

components, then the Participating TO, the ISO and the Interconnection Customer may negotiate parsing the third posting for Interconnection Financial Security into smaller deposit amounts and dates for each discrete component related to the Network Upgrades and/or Interconnection Facilities described in the Generator Interconnection Agreement.

In addition, because the Participating TO will sometimes commence work early under a letter agreement (or in the form of an engineering and procurement agreement), with a security posting attached to this early work, some customers have asked for the ISO to set out a particular procedure to describe the interrelation between the letter agreement posting and the start of construction posting, with a pre-defined procedure for reducing the start of construction posting to prevent redundant posting for work secured under the letter agreement. The ISO will need to perform a number of case studies to develop an appropriate model for accomplishing this.

The ISO proposes to do this during the GIP-2 process and include the appropriate solution as part of this item's draft final proposal.

7.2.5. Improve process for interconnection customers to be notified of their required amounts for IFS posting

Some stakeholders have indicated that they have received notification of their required amounts for Interconnection Financial Security posting late, leaving them with a limited amount of time to make their postings. The notification process for the Transition Clusters second posting revealed issues that need to be addressed so that interconnection customers receive notification of their required posting amounts on a timely basis.

The ISO proposes to develop a procedure and responsibility document in coordination with the PTOs that delineates the process, timeline and responsibilities between the ISO and the PTOs so that past issues are not repeated. The ISO believes the GIP BPM currently under development is the appropriate document and forum for documenting the procedure and responsibilities by which the ICs will receive notifications for their required posting amounts and commits to working with the PTOs to develop a procedure for inclusion into the GIP BPM.

ISO final proposal:

Straw proposal comments and the discussion during the working group meeting on this topic indicate that stakeholders agree with this proposal.

7.2.6. Information provided by ISO (Internet Postings)

Some stakeholders have indicated that there should be more access to current and/or updated queue or base case information. These have included requests that ISO provide information such as additional data, and study availability. Currently, much of this information is kept in a secure area on the caiso.com web portal. Stakeholders have also asked for maps to be available which could provide locations favorable to development or substations where additional room exists to connect projects. The ISO and stakeholders need to weigh the sensitive nature of this information with the need for greater access.

The ISO is receptive to working with stakeholders to identify information the ISO can develop to post and maintain with a reasonable amount of effort and to develop a more user friendly

webpage. The ISO will continue to seek input from stakeholders through the GIP 2 process in an effort to provide meaningful and up-to-date information that facilitates the interconnection process. External parties must understand, however, that the ISO is required by federal regulation to safeguard Critical Energy Infrastructure Information (CEII) from public dissemination. This is a primary reason why transmission information is placed behind the secured web portal, requiring parties who have a business reason to contact the ISO and execute an ISO and WECC non-disclosure agreement and access the information through password-protected web-gates assigned to specifically designated individuals.

Another item in data availability is that under GIP Section 3.6 the ISO is required to post its interconnection study information on the ISO website. The ISO proposes that the ISO tariff be modified to clarify the language so that it clearly states what information the ISO is to consider confidential and to be posted to a protected ISO web site.

ISO draft final proposal:

Based on stakeholder comments received on the straw proposal a list of items and issues was developed (shown below). The ISO proposes to develop an internal team to further review the issues and requested items for posting to the internet and determine the capabilities of the ISO to develop and maintain these items and the requirements on the ISO that impact the level of security for posting the requested items. The ISO findings and recommendations will be made to stakeholders as part of the GIP BPM stakeholder process later this year.

- a. Increased transparency in the GIP process
- b. The CAISO should post both the Phase I Interconnection Study and the Phase II Interconnection Study on its secured website.
- c. PTO/CAISO/IC meeting minutes,
- d. Base Cases, contingency list, study criteria and findings.
- e. Maps
- f. Information that will allow the ICs to replicate CAISO study results, including (but not limited to)
 - ii) TPP Study Plans,
 - iii) contingency files,
 - iv) transmission upgrade alternatives studied,
 - v) other data used in Reliability, Deliverability, and Short Circuit Duty studies

7.3. Work Group 3 - LGIP Non-Conforming Provisions, Grandfathered Resources and Site Exclusivity

7.3.1. Provisions for partial termination of an LGIA

Currently, the pro forma LGIA requires the IC to put into commercial operation the full MW capacity of its generating facility as specified at the time it entered the Phase 2 study process.¹³ In the case of a generating facility being constructed in phases, such that each phase may

¹³ <http://www.caiso.com/2b18/2b1876f23dfe0.pdf> section 2.4.3

achieve commercial operation at a different time, this LGIA provision means that failure of the IC to construct one or more later phases of the project can be considered to be a breach of the LGIA, with the potential for triggering a full termination of the LGIA, including termination of the interconnection and even disconnection of earlier phases of the generating facility that have achieved COD. In some specific LGIA negotiations during 2010, where the circumstances were such that the network upgrades would take a particularly long time to complete (some 84 months), some customers indicated that there was business uncertainty at the time of LGIA execution as to whether the IC could build the later phases of the generating facility, and so the IC was reluctant to commit at LGIA execution to full build-out of the generating facility. In these situations, the customers asked that the ISO and PTO consider a contractual path to deal with the contingency that the later phases could not be built, so as to avoid the contractual uncertainty that would result if the parties simply took a “wait and see” approach to see if the contingency arose. For the customers, the contractual and litigation uncertainty of the future contingency would make it difficult to attract generation facility financing and equity investment.

In addressing these questions, the ISO worked with specific ICs and PTOs to develop non-conforming “partial termination” provisions whereby the IC could elect to include in the LGIA an option to terminate later phases of the generating facility. Upon exercise of the partial termination option the IC would pay a pre-specified “partial termination charge” (“PTC”) that would be secured at LGIA execution or by a date certain specified in the LGIA. In this way, the IC could exercise partial termination of the LGIA with regard to later phases without terminating the entire LGIA and without adverse impacts on the earlier phases of the project. The partial termination provision that was developed also permitted the ISO (in consultation with the PTO) to declare a partial termination and collect the PTC if the IC failed to meet milestones specified in the LGIA for development of its generating facility. The LGIA specified that, in the event of partial termination, the PTC would be applied for the benefit of ratepayers, as an offset to the PTO’s transmission revenue requirement that is paid for out of the transmission access charge (“TAC”). The amount of the PTC was determined by the ISO based on an analysis of the risk of stranded investment, as indicated by the amount of new interconnected capacity needed to trigger the need for the associated network upgrades and the depth of the interconnection queue that would utilize the same upgrades if partial termination were exercised.

The scope of interconnection requests for which partial termination was previously included in LGIAs was limited to those transition cluster projects where the deliverability network upgrades were to be built over a period of approximately 84 months, *and* where the PTO had agreed to up-front fund the network upgrades. The partial termination non-conforming provisions were motivated also by the need to accommodate project milestones with regard to obtain ARRA funding. In view of the fact that more and more generation facilities are likely to utilize a phased structure in the coming years, this initiative proposes to incorporate partial termination provisions into the tariff and the pro forma LGIA, so that interconnection customers that meet the eligibility requirements may elect this option without having to utilize non-conforming LGIA provisions. The eligibility requirements are described below.

During work group discussions, some stakeholders argued that partial termination provisions are not needed because ICs can and should submit multiple interconnection requests for the phases of a phased project. Although this option is always available, it does not conform to the realities of developing a project with a long lead time for the transmission build out. Other stakeholders mentioned the risk associated with partial termination and the possible side effect of building more transmission than necessary. This concern is being mitigated through the use of a scalable multiplier in determining the amount of the partial termination charge. The multiplier, which is described in detail below, reflects the risk of stranded investment by factoring

in the MW amount of projects seeking to use the same transmission and the threshold MW amount of new generation capacity needed to trigger the associated network upgrades.

Eligibility for Partial Termination provisions

The ISO proposes to base partial termination provisions and eligibility requirements on the two LGIA's that incorporated these provisions, both of which were conditionally approved by FERC.¹⁴ The ISO proposes that all of the following requirements be met for a project to be eligible to elect partial termination provisions.

- i. Type of generation project – The generation project is designed to be built in phases with discrete generation units that can be operated independently.
- ii. Project size – The full generation project must be no smaller than 200 MW
- iii. Partial Termination size – The project can use Partial Termination for up to 75% of the project size.
- iv. Timing differences – The transmission build out to achieve Full Capacity Deliverability Status is planned to occur at least three years after the COD of the project.

Partial Termination Charge

Partial Termination provisions provide a benefit to an IC whose project meets the above criteria, by allowing the IC to terminate later phases of the project for payment of a pre-specified charge, without adverse impacts on the earlier phases of the project. At the same time, these provisions create a risk that ratepayers may pay for transmission upgrades that are under-utilized because they were sized for generation projects that were ultimately only partially completed. The proposed partial termination charge is intended to assess a reasonable cost to the IC upon exercise of partial termination that appropriately values both the risk to ratepayers regarding the potential for stranded costs and the benefit to the IC of the flexibility partial termination provides. Consistent with the approach applied previously in the non-conforming LGIAs, the ISO proposes that, in the event of partial termination, the PTC would be applied for the benefit of ratepayers, as an offset to the PTO's transmission revenue requirement that is paid for out of the transmission access charge ("TAC"). The calculation of the amount of the PTC will be determined as described below to reflect the risk of stranded investment. This charge is based on the premise that partial termination could negatively impact ratepayers if it resulted in stranded investment, i.e., transmission capacity that ultimately was under-utilized due to a lack of significant projects later in the queue that could utilize the same transmission, or because later queued projects were required to build additional upgrades on top of the transmission capacity reserved by the phases that never come to be completed. Partial termination can also be invoked through mutual agreement by the PTO and ISO if the project sponsor fails to meet milestones specified in the LGIA.

Calculation of the Partial Termination Charge

Upon exercise of partial termination, the ISO will assess a Partial Termination Charge equal to the product of X% of the IC's cost responsibility for its network upgrades, as determined by the GIP Phase 2 cluster study, multiplied by the ratio of the megawatt capacity of the terminated portion of the facility to the megawatt capacity of the entire facility. The multiplier X% is calculated to reflect the ISO's evaluation of the risk of stranded investment, i.e., under-utilized transmission capacity, whose costs would be borne by transmission ratepayers. In the recent

¹⁴ Palo Verde II, LLC at 134 FERC ¶ 61,087 and Palen Solar, II at 134 FERC ¶ 61,108

FERC-approved LGIAs incorporating non-conforming Partial Termination provisions, a 10 percent multiplier in the place of X% was arrived at based on the ISO's assessment that the risk of stranded investment was relatively small for these LGIAs, due to the low MW threshold of new generation capacity needed to trigger the upgrades, and the relatively high MW volume of additional generation in the queue that would utilize the same network upgrades if an interconnection customer exercised partial termination.

For the Blythe LGIA the ISO planners calculated that the needed transmission upgrades would be triggered by only 300 MW of interconnection requests for full capacity deliverability status.¹⁵ This meant that if all the eligible units in this LGIA exercised the Partial Termination provisions (i.e., if the developer completed only 250 MW of the 1000 MW project and terminated the remainder), only an additional 50 MW seeking full capacity interconnection in the same area would trigger the full package of upgrades. The other key calculation performed for the Blythe LGIA was the amount of generation in the queue which would utilize the same upgrades, which the ISO determined to be 6005 MW. On this basis the ISO concluded that the risk of ratepayers bearing the cost of under-utilized transmission was relatively low for these LGIA's and set the multiplier to 10%.

The ISO now proposes to utilize the same type of assessment to determine the multiplier to use in future applications of the Partial Termination provisions. That is, the ISO will estimate the risk of stranded investment by calculating two quantities: (1) the number of MW triggering the network upgrades, and (2) the amount of generation in the queue which would utilize the same transmission upgrades. The proposed multiplier will have a floor of 10% and a ceiling of 50%, with intermediate values defined as the ratio of the two quantities just mentioned. This approach is captured by the following formula:

- T = MW capacity of generation needed to trigger the network upgrades
- C = MW capacity of generation in the current or subsequent cluster study groups that would utilize the same upgrades
- R (ratio) = T/C
- X = 0.1 for R ≤ 0.1
- X = R for 0.1 < R ≤ 0.5
- X = 0.5 for R > 0.5

Example:

Triggering MW	Generation in the queue	Multiplier
50	600	10.0%
100	550	18.2%
150	600	25.0%
300	900	33.3%
400	700	50.0%

In the discussion and comments following the ISO's straw proposal, some stakeholders asked the ISO to provide more detail on how the two key quantities above (T and C) would be

¹⁵ <http://www.caiso.com/2866/2866c731616a0.pdf> Attachment C

calculated, but did not disagree with the above formula or the 10% minimum and 50% maximum percentages used as a floor and cap. To determine the triggering MW (quantity T), the ISO performs a deliverability assessment for each study group within the cluster, and for all generation in the study group that requests full capacity deliverability status. For this assessment a power system base case is created that includes all transmission additions and upgrades that have been approved for interconnection customers in the serial queue or prior clusters or through the transmission planning process, and assumes that all full capacity generators in the serial queue or prior clusters are commercially operable. Under these conditions, the ISO tests for deliverability of the full capacity resources in the current cluster study group, and finds either that the base transmission network is sufficient or it is not. If it is not, then the ISO will identify network upgrades needed to make current cluster study group fully deliverable and, in the course of this assessment, will also determine what MW portion of the study group would be deliverable without the most expensive network upgrade. This last quantity, plus one, would be the triggering MW for this upgrade.

An example of this calculation is provided by Yi Zhang in the testimony he submitted to FERC in support of the non-conforming partial termination provisions the ISO filed for the Blythe project (see reference above). In that testimony, Yi Zhang explained that the ISO network for the study group area could support deliverability for 1400 MW of capacity, of which 1100 MW was already accounted for by serial queue projects, leaving 300 MW of potential deliverability for full capacity resources in that area in the transition cluster. If the total transition cluster generation seeking full capacity deliverability in that area was less than or equal to 300 MW, no additional transmission upgrades would have been triggered, but 301 MW would trigger a need for upgrades. In the case of this non-conforming LGIA, however, there was 2200 MW of capacity in the study group seeking full capacity deliverability, clearly more than enough to trigger the identified upgrades.

To determine the amount of generation later in the queue that would utilize the same transmission (quantity C in the formula), the ISO considers the current cluster study group plus the capacity that has filed full capacity interconnection requests in later clusters that would utilize the same transmission. In the example from Yi Zhang's testimony, there was 2200 MW in the current cluster study group, plus 4855 MW in the next two clusters, for a total of 7055 MW. Of this total, we subtract 300 MW based on the assessment described above, where the ISO found that 300 MW could be deliverable without upgrades, and we subtract 750 MW to evaluate the impact of Blythe exercising partial termination for three out of the four phases of the project. This leaves 6005 MW of additional generation in the current cluster plus the next two clusters that would utilize the identified transmission upgrades if Blythe exercised its partial termination provision to the fullest extent possible.

Applying the above calculations to the formula proposed above, we find that $R = 300/6005 = 0.05$, in which case the multiplier X would be set at 10%, as it was in the filed non-conforming LGIAs.

Partial Termination triggers

The ISO proposes the same conditions as in the straw proposal under which a project sponsor, ISO or PTO can exercise the Partial Termination provisions under the following guidelines:

- I. Partial termination may be exercised at the sole discretion of the project sponsor any time after it posts the required PTC security

- II. Partial termination may also be exercised mutually by the ISO and PTO if the transmission customer misses project milestones as set forth in the LGIA.

7.3.2. Reduction in project size for permitting or other extenuating circumstances

Stakeholders argued for a much higher threshold than the 5% the ISO proposed, with ranges up to 20%. The ISO did commit to further explaining the criteria to be used if a project sponsor seeks a waiver higher than 5%, and is mentioned in the first bullet below.

During work group discussions and in comments filed, stakeholders¹⁶ explained the need for flexibility to downsize the size of a project as specified in the LGIA due to land, permitting and other issues, without triggering a breach of the LGIA as a consequence. In these discussion and comments, the stakeholders generally emphasized issues beyond the control of the IC rather than business or financial factors. The ISO has considered such “beyond the control of the IC” issues to generally relate to considerations of substantial performance versus full performance of the contract, and agrees that it is important to address this matter as a distinct and separate provision from the partial termination provisions discussed in the previous section, where the total project would be structured under the LGIA to be completed in phases.

Consideration of the substantial performance issue requires a careful balance between creating incentives for an IC to size a project correctly against the realities which project developers face with unexpected permitting obstacles. The ISO is also mindful that ratepayer-funded transmission is built for the full capacity of the project, and therefore there would be some risk of ratepayer exposure to stranded investment costs if the project is allowed to downsize after the LGIA is executed. It is normally expected that between Phase 1 and Phase 2 any issues with land or air permits that could affect project size would become known. However, this is not always the case, and in the past the ISO has worked with projects sponsors on a case by case basis to evaluate the circumstances and make recommendations regarding modification of the project size.

The ISO proposes the following:

The ISO and PTO would permit project modifications reducing the MW size of the generating facility for any reason that may occur between the execution date of the LGIA and the COD of the project, without triggering a breach of the LGIA. The greatest permissible project reduction would be 5% of the project size. The IC may modify the project size subject to the following conditions:

- The need to downsize above 5% must be due to environmental or other permitting restrictions not foreseen at the time of LGIA execution and that cannot be mitigated by the IC through reasonable economic means and will be reviewed by the ISO on a case by case basis
- Downsizing will not reduce the IC's network upgrade funding obligation and will not accelerate the repayment of such funding to the IC

¹⁶ First Solar, CalWEA, LSA & Recurrent Energy

- All other requirements imbedded in the LGIA with respect to posting amounts, timing of posting security, cost structure, etc., will not change as a result of the size reduction.
- If the IC wants to reduce project size by an amount greater than 5% the ISO will conduct a more comprehensive review of the circumstances to assess whether to grant the size reduction.

7.3.3. Repayment of IC funding for network upgrades associated with a phased generation facility

Stakeholders did not support the 10% holdback as indicated in work group meetings because they argued that the IC already provides enough financial security and the additional hold back would be unduly burdensome. The ISO added step 5 below to ensure all parties are in agreement as to what constitutes commercial operation and removed the holdback provision.

Under GIP Section 12.3.2, Participating TO repayment of the IC's funding of network upgrades does not commence until the entire large generating facility is completed and begins commercial operation. The section specifically states that in the case of phased generating facility, the IC is not entitled to repayment until COD of the entire generating facility (i.e., all phases).

The ISO now proposes to initiate partial repayment of IC-funded network upgrade costs upon completion and commercial operation of each phase of a project that was structured as a phased project in its LGIA:

1. In order to be eligible for repayment upon commercial operation of a phase of the phased generating facility,
 - a) The generating project itself must be capable of construction in phases (generating units or modules);
 - b) The IC must have structured the project as a phased generating facility in the LGIA; and
 - c) The completed phase must correspond to one of the phases specified in the LGIA. For example, if a 1000 MW generating facility was divided into four 250 MW phases, the IC must complete and achieve commercial operation of the 250 MW electric generating unit 1 in order to qualify for repayment for the first portion of its network upgrade costs, all of the 250 MW of electric generating unit 2 in order to qualify for repayment of the second portion of the upgrade costs, etc.
2. The IC must have posted the 100% financial security covering all the network upgrades, must carry out its contractual commitments to pay for the entire network upgrades specified in the LGIA, and must carry out its contractual commitment to complete the later phases of the generating facility in accordance with the LGIA. In this regard, if the IC completes one phase and repayments begin but then the IC later breaches the LGIA, the PTO and ISO shall be entitled to offset against repayments for network upgrades related to phase one any losses or damages resulting from the LGIA breach.

3. If the LGIA included a partial termination provision and partial termination was exercised, then the eligibility for repayment is not diminished because the phase that was partially terminated was not built.
4. In a case where the ISO has permitted the IC to reduce the MW size of its generating facility under the proposed substantial performance provisions (see section 6.3.2 above), the IC's right to repayment shall not be diminished because the substantial performance which the ISO accepted resulted in commercial operation of less than all the MW specified in the LGIA.
5. All parties to the LGIA must be in agreement that each phase requesting commercial operation status meets the obligations set forth in the LGIA and any other operating, metering or interconnection requirements to deliver the stated MW in the LGIA.

There is a subsidiary question that arises when transmission upgrades will take multiple years to construct and will be constructed as a sequence of components over several years, and the generating facility will not be able to deliver the full facility output until all the network upgrades are completed. In such instances, should the IC repayment for any portion of the network upgrades commence before the entire network upgrades are "used and useful" and put into service?

The ISO has previously in this initiative taken the position that the IC is not entitled to repayment until all the network upgrades are placed in service. At this time, the ISO believes that this provision requires further refinement, in particular to specify the linkage between repayment and the partial termination provision. The ISO will be prepared to discuss this matter at the next stakeholder or work group meeting.

7.3.4. Clarify site exclusivity requirements for projects on federal land

Interconnection customers for the cluster process must establish site exclusivity or pay a site exclusivity deposit (refundable upon a showing of site exclusivity) and customers seeking to use the independent study track must show site exclusivity at the outset. Site exclusivity is defined in the ISO Tariff Appendix A, and contains requirements for establishing site exclusivity on private land and public land. The requirement for public land involves a final non-appealable permit, license or other right to use the property for purpose of generating electric power.¹⁷ In

¹⁷ The full definition for **Site Exclusivity** is:

Documentation reasonably demonstrating:

(1) For private land:

(a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or

(b) an option to purchase or acquire a leasehold interest in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.

(2) For public land, including that controlled or managed by any federal, state or local agency, a final, non-appealable permit, license, or other right to use the property for the purpose of generating electric power and in acreage reasonably necessary to accommodate the Generating Facility, which exclusive right to use public land under the management of the federal Bureau of Land Management shall be in a form specified by the Bureau of Land Management

early 2009, the ISO issued a technical bulletin describing the business practice under which the ISO would deem an interconnection customer to have demonstrated site exclusivity under the “other right to use the property” component of the definition when the interconnection customer intended to site the generating facility on public land administered by the Bureau of Land Management (BLM), prior to having received a final, non-appealable permit.¹⁸

The ISO proposes no change to the prior straw proposal version and will update the BPM to conform to BLM modifications to site exclusivity through “Instruction Memoranda” notices. During 2010, the BLM issued several updated “Instruction Memoranda” which have modified the rules under which solar energy project rights of way are processed. In light of this, the ISO desires to revisit the BLM process and evaluate whether it is necessary to modify the criteria under which the ISO determines whether an interconnection customer establishes site exclusivity when the project is located on public land administered by the BLM. The ISO has determined that, while some review and update of the criteria may be necessary, this effort will not result in a change of the definition of site exclusivity as stated in the ISO tariff. Rather, the ISO can evaluate the matter through the BPM process, and include the updated material in either the upcoming BPM for Generation Interconnection or in an interim updated technical bulletin.

7.3.5. CPUC Renewable Auction Mechanism requirement for projects to be in an interconnection queue to qualify

Some stakeholders have said that they wish to participate in the CPUC Renewable Auction Mechanism (“RAM”) process as bidders, and that they understand that RAM includes a proposed or established requirement that prior to submitting a bid in RAM, the generator must show that it has an active interconnection request in an interconnection queue (with the ISO or a utility, as appropriate). Some stakeholders asked about using the Independent Study Process, which allows for the submittal of an interconnection request at any time during the year, to meet this RAM requirement. The CPUC has asked how deliverability is treated for distributed generation resources. The ISO will work with the CPUC and potentially other stakeholders to determine the most appropriate method for working out these issues. However, the ISO believes it is preferable for the CPUC and the ISO to work together with interested stakeholders to develop criteria for the RAM program that meets the needs of the RAM without requiring a unique solution in the ISO GIP, if possible. The ISO has been in communication with the CPUC and the PTOs who have submitted advice letters to determine the best approach to make the first RAM auction successful. The ISO is in process developing an agenda for an additional meeting to be held this summer to work through RAM implementation issues and will discuss this at the June 3 stakeholder meeting.

7.3.6. Interconnection Refinements to Accommodate QF conversions, Repowering, Deliverability at the Distribution Level and other Special Circumstances Associated with Smaller Projects, Including Potential Modifications to the Independent Study Process and Fast Track Processes

Interconnection processes and procedures must be periodically reviewed to ensure continued conformity with market trends, as evidenced by the prior discussion regarding the CPUC’s RAM

¹⁸ The technical bulletin, issued February 9, 2009 can be accessed at <http://www.caiso.com/1f42/1f42c00d28c30.html>.

program. The serial study approach envisioned by Order No. 2003 anticipated relatively infrequent requests for interconnection by large central station thermal generating facilities. The proliferation of interconnection requests triggered largely by RPS requirements forced proactive changes to the Order No. 2003 model that were incorporated in the ISO's original interconnection reform efforts. That original reform process properly focused on increasing the efficiency of interconnecting viable large renewable projects located remotely from load centers in commercially competitive renewable energy zones. However, generation development remains highly dynamic and various factors, including financial market conditions, evolving environmental policy, and simply lessons learned, have led to a greater emphasis on diverse project opportunities, including qualifying facility conversions, repowering, and smaller less transmission dependent distributed supply.

Accordingly, stakeholders have requested review of ISO interconnection processes and procedures to assess potential improvements to accommodate these developing market opportunities (in addition to the RAM program discussed above). Currently, the ISO Tariff contemplates the following options:

1. Determination whether interconnection procedures are applicable (Tariff § 25):
 - a. If new "Greenfield" capacity of any quantity, then interconnection procedures apply.
 - b. If an existing generating facility and no new incremental capacity are requested, but the proposed changes may lead to a potential violation of Applicable Reliability Criteria, then interconnection procedures apply.
 - c. If existing generating facility and no new capacity and changes do not implicate Applicable Reliability Criteria, then interconnection procedures do not apply.
 - d. QF commercial conversion, see Path 2 below
2. Once interconnection procedures apply:
 - a. Fast Track: limited to new resources 5MW and under that request energy-only deliverability status. These projects can enter the queue at any time and the study process is anticipated to last approximately 120 days.
 - b. Independent Study Process (ISP): applies to new or existing projects of any size that are electrically independent of cluster study projects and request energy-only deliverability status. These projects can enter the queue at any time and the study process is anticipated to last from 210 to 240 days. The interconnection customer must currently show the COD is achievable through permitting and/or commitments for the energy supply. The interconnection customer is required to post \$50,000 in security plus \$1,000 per MW for study results.
 - c. Queue Cluster: all projects that do not meet the foregoing.

Stakeholders have raised concerns whether this existing structure sufficiently facilitates incremental expansion or reconfiguration of previously studied and planned resources or existing operational resources (whether former QFs or not). Thus, this part of the ISO proposal attempts to clarify interconnection requirements for re-powered or reconfigured generation facilities, including resolution of concerns regarding the maintenance and potentially increase of

a resource's deliverability. The interrelated areas addressed in response to stakeholder input include:

- Reviewing the ISP and Fast-Track procedures;
- Clarifying interconnection procedures applicable to QF conversions, facility repowerings, and other minor facility modifications;
- Assessing the feasibility of allowing increased behind-the-meter flexibility; and
- Clarifying the process needed, if any, for determining the "deliverability" of facilities interconnected at the distribution level.

However, any potential changes must be clearly linked to a well defined objective and benefits to one group of interconnection customers must be carefully weighed against the impacts to other interconnection customers and the overall efficiency of the ISO's interconnection process.

Applying these factors, the ISO proposes the following modifications or clarifications to the existing "paths" available to project developer.

➤ Path 1: Interconnection Procedures Do Not Apply

The ISO proposes to retain the basic structure of Section 25 of the ISO Tariff. Any project, whether QF or not, will not be subject to interconnection procedures if the changes to the generating facility do not represent any increase in nameplate capacity and will not cause a potential violation of Applicable Reliability Criteria. The ISO intends to work with its PTOs and project developers to better define what potential changes may represent a potential reliability concern. The results of this discussion in addition to the applicable procedures, including form of submission of information to perform the assessment, timing of the assessment, etc., will be incorporated into an ISO business process manual. A change to the ISO Tariff will be required to obtain authority for the ISO and/or PTO to charge for its services associated with the review process. Currently, the ISO contemplates that the potential charge would be similar to that imposed under the Fast Track.

Currently, the standard for review of resources generally and QFs in particular are not wholly consistent. The ISO proposes to eliminate this inconsistency by deleting Section 25.1.2 of the ISO Tariff. As discussed in Path 2, if an existing QF is making changes that do not implicate the interconnection process and its commercial status is also not being altered, then no requirement for a Generation Interconnection Agreement should be required. The QF's existing arrangement with the host utility should remain in force. Nor should there be any need to protect or modify the QF's deliverability status.

➤ Path 2: QF Commercial Conversion Only

For existing generators that from QF to PGA status without repowering or reconfiguring their facility, the existing affidavit approach will be used. Similar to Path 1, the process for performing this review would be set forth in a business practice manual. In addition, the converting QF would be required to enter into a Generator Interconnection Agreement, which may, if necessary, set forth upgrades necessary to ensure compliance with PGA requirements for metering, telemetry and other instrumentation.

➤ Path 3: Fast Track

The 5 MW limit for the Fast Track was extensively discussed in earlier initiatives and identified as a reasonable limit to ensure such projects will not cause reliability concerns. Fast Track eligibility applied only to new resources. Stakeholders have asked that the Fast Track process be expanded to encompass repowering of existing generation facilities and that the 5 MW limit apply to incremental expansions, not the gross capacity of the generating facility.¹⁹

In response to stakeholder suggestions, the ISO proposes to allow the Fast Track process to apply to repowerings of existing generation facilities. The ISO further proposes to allow any existing resource to incrementally increase its gross capacity by 5 MW. This constitutes a change from the prior version of the proposal, which limited the availability of the Fast Track to resources with gross capacity of 5 MW or less. However, the identical screens, criteria and application procedures currently governing only *new* generation facilities would apply to this new category under the Fast Track additional MWs. For example, a 50 MW resource could apply to increase its gross capacity to 55 MW by proposing an incremental 5 MW. It should be noted that even where proposed incremental capacity does not satisfy the existing Fast Track screens and no upgrades are reasonably anticipated, the ISO and PTOs may nevertheless determine that the incremental capacity may be interconnected in a manner consistent with safety and reliability. (See, ISO Tariff, Appendix Y, Sec. 5.3.3) Where the proposed screens are satisfied, the ISO anticipates that upgrades, if any, are likely to be reasonably minor such that the customer options meeting provided under section 5.4 of the GIP will provide the means for the ISO and PTOs to protect the safety and reliability of the system regardless of the gross capacity of the resource. (See, ISO Tariff, Appendix Y, Sec. 5.3.4)

➤ Path 4: Independent Study Process

As a general matter, the ISO concludes that the current ISP rules represent an appropriate mechanism to ensure an equitable allocation and efficient identification of upgrade costs necessary for reliability by isolating those projects that have a limited potential to impact electrically-related projects. During the stakeholder discussions, it became clear that projects must satisfy the short-circuit duty screen of the ISP to preclude the potential interdependence between one project and others that may be in the queue. As such, the idea of fundamentally relaxing or creating a new “path” for incremental expansion has been deferred at this time. Nevertheless, the ISO believes that the “behind-the-meter” proposal provides an alternative method for projects to satisfy the flow-based prong of the ISP test.

A project developer can avail itself of the ISP where it can provide certain *indicia* of commercial viability as well as pass the flow test and the short-circuit duty test. A project developer proposing to increase capacity would likely first attempt to satisfy the ISP screens because such capacity could then be added to its Pmax for market purposes. However, if the barrier to applying the ISP is the impact on neighboring projects or elements as determined by the power flow analysis in GIP Section 4, then the project developer should be able to abide by pre-established operational limitations that eliminate those impacts. The stakeholder behind-the-meter proposal provides an appropriate template for these restrictions.

¹⁹ NextERA

In particular, under this revised application of the behind-the-meter proposal, the ISO offers that the following technical and business criteria continue to be pertinent:

Technical Criteria

- The total nameplate capacity of the expanded generation plant shall not exceed in the aggregate 25% of its previously studied capacity or up to 100MW.
- The behind the meter capacity expansion can only take place after the project COD and after all network upgrades for the project are in-service.
- The plant shall have its expanded capacity under a separate breaker called the “expansion breaker” at all times. Alternatively and with ISO/PTO consent, the plant operator may decide whether the generation modules that will be tied to the expansion breaker can be a mixture of GIAC facilities and the expansion facilities (total capacity behind the expansion breaker to remain equal to or greater than the planned behind the meter capacity expansion figure).
- Unless specifically requested by the ISO, the total output of the generator shall not exceed its originally studied capacity at any time. The ISO shall have the authority to trip the expansion breaker if the plant exceeds that amount. The ISO may request that the generator provide more output than that amount [I’m not sure about this]
- For Full Capacity (FC) interconnection, the Net Qualifying Capacity for the modified facility cannot exceed the on-peak capacity level assumed in the prior Deliverability Assessment. As noted in the business protocols, the interconnection customer can submit an interconnection request for a Deliverability Assessment in a future GIP application window to increase the NQC beyond that level.

Business Criteria

- The interconnection status (full-capacity or energy-only) of the capacity expansion must be the same as the interconnection status of the formally studied project.
- The GIA shall be amended to reflect the revised operational features of the capacity expansion.
- The IC can at any time request that ISO formally study the expanded capacity in the GIP study process and to formally add that capacity to its GIAC so that the expanded capacity can be released from the operational restrictions after the GIP studies are completed and the IC has complied with all the relevant requirements.

The original intent of the foregoing stakeholder proposal was to allow generating units to expand capacity behind the ISO revenue meter so long as their output would not exceed the capacity level that was formally studied and agreed to in the Generation Interconnection Agreement in order to avoid going through the standard generation interconnection study process. The ISO agrees that capacity expansion should be encouraged to facilitate the ability to the generator to operate at higher capacity factors and improve the utilization of its interconnection facilities and the overall transmission grid. This objective must be balanced against reliability. The ISO believes it has achieved the appropriate balance by expanding the proposed use of the ISP process and thereby provides project developers with greater timing flexibility and some relief from the more substantial financial requirements associated with the standard queue cluster.

➤ Path 5: Queue Cluster

All new or repowered or reconfigured generators that seek Full Capacity Deliverability Status or do not otherwise satisfy the requirements for the foregoing paths would be subject to the general queue cluster provisions of the ISO's generator interconnection procedures.

Other Deliverability Issues:

Maintaining Deliverability upon QF Conversion

Stakeholders have requested clarification of how deliverability will be treated in certain QF scenarios. The ISO has a general policy of maintaining deliverability of existing generation resources and allowing generation owners to retain deliverability (on a MW to MW basis) when repowering or otherwise replacing generation delivering to the same location. Consistent with this approach, existing QF resources have been studied at their maximum historic output and have been demonstrated to be deliverable. This allows their Net Qualifying Capacity to be equivalent to their Qualifying Capacity under CPUC resource adequacy counting rules. The question then becomes whether a QF's deliverability should be adjusted if its repowers through an interconnection path that requires energy only status, i.e., Fast Track or ISP, or upon conversion to PGA, and, if so, how?

Under either scenario, the QF will not be allowed to increase its Net Qualifying Capacity in a manner inconsistent with ISO study methodology. As such, if a wind QF reconfigured to a solar facility with a higher Qualifying Capacity value under CPUC counting rules, the ISO will nevertheless perform the deliverability study using the same maximum output assumed for the existing wind facility. Thus, the Net Qualifying Capacity could increase up to the studied amount to the extent the Qualifying Capacity is equal to or greater than the capacity assumed in the deliverability study.

Under the scenario of a conversion of a thermal QF to commercial status, the CPUC's counting rules would generally change from historic output to nameplate. However, the QF is still likely to be restricted by the commercial needs of its underlying industrial host. Again, to the extent the QF had an existing Net Qualifying Capacity value, then that value would continue to be honored where consistent with the capacity assumed in the ISO's deliverability analysis. In the thermal QF example, the historic Qualifying Capacity should always be less than nameplate. Only if the ISO studied the resource at nameplate, therefore, would the Net Qualifying Capacity be allowed to increase. As such, actual delivered amount will form the basis of the Net Qualifying Capacity of a QF converting to commercial status.

Distribution Level Deliverability

Deliverability for resource adequacy purposes reflects the ability of the energy output of the capacity to reach the aggregate of load during periods of peak demand. The ISO has two categories ICs can elect for interconnection service, Full Capacity Deliverability Status ("FC") and Energy Only ("EO"). To receive deliverability for RA purposes the resource would need to select FC as its interconnection study option. The ISO does not have a means under the tariff to grant deliverability (FC status) to any resource, regardless of size or whether the resource connects to the distribution or transmission system, unless a deliverability study is undertaken. For projects in the Wholesale Distribution Access Tariff under the direction of SCE, SDGE &

PG&E, those seeking deliverability would be included in the ISO's deliverability study. Thus, in order to qualify for Resource Adequacy capacity, under current ISO tariff processes the resource must select FC in the interconnection process.

As an initial matter, the issue of deliverability only becomes relevant after the CPUC or local regulatory authority determines the eligibility of resources to qualify as resource adequacy supply. Assuming such resources do count for RA supply, the ISO has been working with distribution utilities to coordinate their wholesale distribution tariffs with the ISO's deliverability assessments. In general, the ISO contemplates incorporating distribution level project information provided by distribution utilities into its deliverability modeling and analyses performed as part of the standard interconnection cluster process.

7.4. Work Group 4 - LGIP/LGIA Interconnection Cost and Security Requirements

7.4.1. Modify the second and third financial security posting requirements to offset for PTO funded network upgrades (incorporating the ISO's LGIP 2010 tariff waiver into the GIP)

Throughout this initiative process, stakeholders have supported the proposal to make the ISO's 2010 financial posting waiver for the transition cluster a permanent feature of the GIP. The provisions of the waiver "back out" the cost of network upgrades that a PTO has committed to up-front fund from the interconnection customer's network upgrade financial security posting requirements. Current GIP provisions do not make any distinction in the financial security requirements between cases where the PTO has committed to fund network upgrades and those in which the interconnection customer funds their construction.

Moreover, the ISO's experience under the cluster process is that the PTO's commitment to fund network upgrades has typically been dependent upon a FERC award to the PTO of abandoned plant cost recovery.²⁰ This means that, in the interconnection agreement, the PTO's contractual commitment to fund does not arise until after FERC issues an abandoned plant award. Historically the PTO has made a separate filing to FERC to seek abandoned plant cost recovery (i.e. separate from a filing that asks FERC to approve the interconnection agreement) for each discrete transmission project to which the interconnection customer's network upgrades relate, and FERC has considered and decided the matter on a case-by-case basis. This filing has sometimes been referred to as an "incentives" filing, because the PTO asks FERC for various incentives (such as an adder to its return on equity, approval of construction work in progress) together with the request for abandoned plant approval. To date, a PTO has not conditioned its up front funding offer on FERC award of other incentives besides the abandoned plant recovery award.

A timing issue has sometimes arisen when the timing of the abandoned plant award from FERC and the time to post the interconnection second financial security ("IFS") posting has not been aligned. In many case to date, the PTO has filed its incentive filing on or after the execution of the LGIA, and so FERC has not decided on the incentives filing request by the time when that

²⁰ In this context, this is a determination that, should construction of the up-front funded network components be abandoned during the course of construction, the Participating TO could apply to FERC for recovery of the prudently incurred costs.

the second IFS posting comes due.²¹ Accordingly, there is a question of whether the IC's second IFS posting must include amounts to cover the network upgrades that the PTO has conditionally committed to fund when the condition is still unfulfilled at posting time. In implementing the 2010 waiver granted for the transition cluster, the IC was not required to post this amount during the pendency of the abandoned plant issue at FERC.

In working group discussions on the ISO's Straw Proposal document, the consensus of stakeholders was that the straw proposal provisions for this subject should be carried forward to the draft final proposal, and no party objected to any of the provisions.

Accordingly, the draft final proposal carries forward, essentially unchanged, the provisions from the straw proposal document. The ISO proposes to incorporate the terms of its June 30, 2010 waiver request to FERC into the GIP. This document will refer to the provision as the "*PTO Up-Front Fund-Partial IFS Waiver*" provision.

Following that model, the ISO proposes that an IC will be relieved of the obligation to post the second and third financial security postings for network upgrades that the Participating TO has unequivocally committed to up-front fund and under the terms discussed below.

- The current GIP does not speak to the issue of when a PTO should or should not voluntarily fund network upgrades. This remains the case under the draft final proposal. The ISO will not enter into the decision by the PTO on whether to elect to fund up-front fund network upgrades.²²
- IC relief from the obligation to post for the PTO up-front funded network upgrades shall be effective for only so as long as the PTO's up-front funding commitment is effective.

As indicated in the Straw Proposal, the ISO does not anticipate that it would take a position on the appropriateness of a Participating TO request for abandoned plant approval or other incentive rate or term in connection with its commitment to up-front fund the network upgrades.

The *PTO Up-Front Fund-Partial IFS Waiver*" provision will include the following provisions:

1. The offset to the posting requirements for PTO up front funded network upgrades will only apply to the second and third financial postings. It does not apply to the interconnection customer's obligation to make the initial posting.

In this regard, the initial posting requirement is still an important requirement to identify those projects in the queue that are viable and mature enough to continue on in the interconnection cluster and to separate out those projects which are not ready to move forward. The ISO is of the opinion that, at his early stage, the increasing generator

²¹ Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 163

²² It is important to distinguish the situation where a PTO voluntarily elects to up front finance network upgrades from a situation where PTO construction of network upgrades are an outcome of ISO's transmission planning process. In this stakeholder process, SCE has sometimes referred to the latter as a case where it "involuntarily" funds the network upgrades.

commitment of the ISO's interconnection process is still of primary importance. The ISO also believes that the requirement to post the initial posting will dovetail with Participating TO funding decisions, because, at stage one, the generation projects will not be mature enough for a PTO to commit unequivocally to extend up-front funding to specific projects. In general, the ISO expects such commitment to manifest itself in the SGIA or LGIA,

2. In situations where the second posting requirement arises before the interconnection agreement is finalized, the IC will be provided a 30 calendar day extension to post the IFS portion related PTO-up front funded upgrades, as long as the IC continued to engage in good faith efforts to complete the LGIA negotiation during the additional 30 day period. *If the interconnection agreement is not finalized during this further 30-day period, the IC shall be required to post the remaining amount, subject to refund.*
3. The IFS posting waiver extends only to those network upgrade components that the Participating TO agrees to up-front fund. If there are any remaining network upgrades, then the IC is required to post financial security for these components.
4. If after execution of the LGIA/SGIA, a PTO up-front funding commitment that is conditioned on a FERC grant of abandoned plant approval is pending before FERC, then the posting for network upgrades related to the PTO up front funding commitment will be waived during the pendency of the matter until determination by FERC.
 - a) Should the FERC deny a grant of abandon plant approval --the IC will be required to post the security within 45 days of FERC's issuance of the order (not the time that the order becomes final).
 - The IC and PTO and ISO may determine to renegotiate the interconnection agreement to provide for alternative timeframes or methods for funding the posting, but if no such agreement is executed within the 45-day period, the IC would be required to make the posting.
 - A negotiated interconnection agreement shall be deemed to be conforming if it:
 - extends the time period to post to a date no later than 75 days from FERC's initial order denying abandoned plant approval; or
 - provides for continued Participating TO up-front funding of the network upgrades.
5. In order for the PTO up-front funding commitment to trigger a waiver of IC posting requirements for the related network upgrades, the up-front funding commitment must be conditional upon the IC meeting a standardized set of milestones for IC development and construction of the generating facility (which shall set forth in pro-forma LGIA or SGIA agreements—as part of a PTO-voluntary up front funding option).

6. Should the IC commit a breach of the LGIA/SGIA resulting in default of the interconnection agreement, miss a milestone, or should some other condition arise which permits the PTO to withdraw its contractual commitment to up-front fund, then, within thirty (30) days of the PTO's notice to the IC that the PTO is withdrawing its up-front funding commitment, the IC will be required to post financial security covering the related network upgrades.

7.4.2. Revise LGIA insurance requirements

The current pro forma LGIA contains obligations for all three contract parties (the IC, the PTO and the ISO) to provide evidence of insurance. In this regard, the pro forma does not recognize that the ISO's role under the LGIA is different from the other two parties, who will undertake specific construction work as part of their performance under the contract.

In the Straw Proposal, the ISO staff recommended changing the LGIA insurance requirements to remove the ISO from the requirement to procure insurance and add others as additional insurers to its policies, and to require PTO tender of insurance information only when requested by the IC. In addition, the proposed changes also change the timing requirement for IC insurance requirements related to construction activities.

In the workgroup discussions a further comment was made that insurance policies referenced in Article 18.3.5 (Commercial General Liability, Business Automobile Insurance and Excess Public liability policies may not be commercially available with provisions wherein insurers waive all rights in subrogation.

Subrogation generally refers to a situation where an insurance company tries to recoup expenses for a claim it paid out when the loss was incurred by the act of another party who is legally responsible for paying the insured (damaged party) for the claim. A right of subrogation allows the insurance company to step into the shoes of its insured (the damaged party) to pursue an action directly against the responsible party.

In this draft final proposal, the ISO carries forward the proposed revisions that it offered in the workgroups (contained in a handout document), with one addition. In response to the comment that "waiver of subrogation provisions" may not be commercially available, the ISO has included additional language to LGIA Article 18.3.5 stating that "If any Party can reasonably demonstrate that coverage policies containing provisions for insurer waiver of subrogation rights or advance written notice are not commercially available, then the Parties shall meet and confer and mutually determine to i) establish replacement or equivalent terms in lieu of subrogation or notice or ii) waive the requirements that coverage(s) include such subrogation provision or require advance written notice from such insurers."

The draft final proposal LGIA insurance provisions are listed below, with strike out text to show deletions and underlines to show additions from the pro forma LGIA:

18.3 Insurance. ~~Each~~ As indicated below the designated Party shall, at its own expense, maintain in force throughout the periods noted in ~~of~~ this LGIA, and until released by the other Parties, the following minimum insurance coverages, with insurers rated no less than A- (with a minimum size rating of VII) by Best's Insurance Guide and Key Ratings and authorized to do business in the state where the Point of Interconnection is located, except in the case of any insurance required to be carried by the CAISO, the State of California:

18.3.1 Employer's Liability and Workers' Compensation Insurance The Participating TO and the Interconnection Customer shall maintain such coverage from the commencement of any commencement of Construction Activities providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located., except in the case of the CAISO, the State of California. The Participating TO shall provide the Interconnection Customer with evidence of such insurance within thirty (30) days of any request by the Interconnection Customer. The Interconnection Customer shall provide evidence of such insurance (30) days prior to entry by any employee or contractor or other person acting on the Interconnection Customer's behalf onto any construction site to perform any work related to the Interconnection Facilities or Generating Facility, which shall list the Participating TO as an additional insured.

18.3.2 Commercial General Liability Insurance The Participating TO and the Interconnection Customer shall maintain general commercial liability insurance commencing within thirty (30) days of the effective date of this LGIA, including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage. If the activities of the Interconnection Customer are being conducted through the actions of an Affiliate, then the Interconnection Customer may satisfy the insurance requirements of this subsection 18.3.2 by providing evidence of insurance coverage carried by such Affiliate and showing the Participating TO as an Additional Insured, together with the Interconnection Customer's written representation to the Participating TO and the CAISO that the insured Affiliate is conducting all of the necessary pre-construction work. Within thirty (30) days prior to the entry of any person on behalf of the Interconnection Customer onto any construction site to perform work related to the Interconnection Facilities or Generating Facility, the Interconnection Customer shall replace any evidence of Affiliate Insurance with evidence of such insurance carried by the Interconnection Customer, naming the Participating TO as additional insured.

18.3.3 Business Automobile Liability Insurance Prior to the entry of any such vehicles on any construction site in connection with work done by or on behalf of the Interconnection Customer, the Interconnection Customer shall provide evidence of for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage. Upon the request of the Participating TO, the Interconnection Customer shall name the Participating TO as an additional insured on any such policies.

18.3.4 Excess Public Liability Insurance Commencing at the time of entry of any person on its behalf upon any construction site for the Network Upgrades, Interconnection Facilities, or Generating Facility, the Participating TO and the Interconnection Customer shall maintain excess public liability insurance over and above the Employer's Liability Commercial General Liability and Business Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate. Such insurance carried by the Participating TO shall name the Interconnection Customer as an additional insured, and such insurance carried by the Interconnection Customer shall name the Participating TO as an additional insured.

18.3.5 The Commercial General Liability Insurance, Business Automobile Insurance and Excess Public Liability Insurance policies shall name the other Parties identified in the subsections above, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition. If any Party can reasonably demonstrate that coverage policies containing provisions for insurer waiver of subrogation rights, or advance written notice are not commercially available, then the Parties shall meet and confer and mutually determine to i) establish replacement or equivalent terms in lieu of subrogation or notice or ii) waive the requirements that coverage(s) include such subrogation provision or require advance written notice from such insurers.

18.3.6 The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

18.3.7 The Commercial General Liability Insurance, Business Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

7.4.3. Standardize use of adjusted vs. non-adjusted dollars in Interconnection Study Reports and LGIAs

Currently there is no standard practice for the use of adjusted (constant) or non-adjusted (nominal) dollar amounts to specify interconnection and network upgrade costs in LGIAs. The ISO believes that it is important to adopt a uniform approach for all Interconnection Study Reports and LGIAs. For some projects, the interconnection facilities may take many years to build, and thus calculating security based on costs at the time of construction may provide a better indicator of security posting amounts. Currently, the cost method is stated in the interconnection study reports and interconnection agreements for (LGIAs and SGIAs) and is used as a basis for interconnection postings of financial security.

As explained in the work group discussions, the ISO conducted some informal review of the methods used by the PTOs, with the idea of developing a common practice to be used under the ISO GIP tariff. The ISO understands that per unit cost values for PG&E and SDG&E contain adjustments for inflation in future years when the facilities are to be constructed, but that the SCE values do not. The ISO understands that this has led to situations where interconnection customers connecting to SCE's system may not have been apprised of the higher time-adjusted cost figures for network upgrades and PTO interconnection facilities until such numbers were placed into a draft LGIA for the customer's review. Work group discussions also confirmed that the PTOs utilize additional "escalation factors" besides inflation.

For this draft final proposal, the ISO proposes that PTO cost estimates set out in future Phase I and Phase II interconnection study reports be set out both in current year dollars and in time-adjusted dollars. In addition, as explained in the work group discussions, the ISO proposes that a uniform set of the “escalation factors” utilized for time-adjusted dollar calculations are utilized and uniform across the PTOs. The ISO proposes to conduct additional meetings with PTO personnel to discuss PTO current practices and to arrive at a common set of escalation factors. It is likely that the detail as to escalation factors and dollar adjustments will be incorporated into a business practice manual for the GIP or separately posted on the ISO website rather than placed in full detail within the GIP.

7.4.4. Clarify the Interconnection Customer’s financial responsibility cap and maximum cost responsibility

There is some confusion on the part of some stakeholders regarding now the customer’s maximum cost responsibility for network upgrades is derived. Some parties believe that the “lower of Phase I or Phase 2” rule relates only to the second posting requirement and not the maximum cost responsibility. This would mean that while the customer may post 30% of the costs in the Phase 2 study when these cost numbers are lower than Phase I, the customer still has an ultimate cost responsibility up to the higher costs numbers that were in Phase I and might ultimately have to pay the difference up to that cost level.

As explained throughout this stakeholder process, it is the ISO’s position that an interconnection customer’s maximum cost responsibility under GIP is the lower of the Phase I or Phase II interconnection study cost estimates. The ISO believes that any apparent confusion stems from reading Section 6.7 of the GIP in isolation without considering other provisions relating to costs and responsibility (such as Section 7.1, which outlines the scope of Phase II studies).

In this draft final proposal, the ISO proposes to provide clarifying language in GIP Sections 6.7, 7.1 and Section 9, to make it unambiguous that the IC’s maximum costs responsibility is the lower of the Phase I or Phase II interconnection study cost estimates.

7.4.5. Consider adding a “posting cap” to financial security postings for the PTO’s Interconnection Facilities

Customers post security for both Network Upgrades and the PTO’s Interconnection Facilities. For example, at the first posting, the Network Upgrade component is based on the lower of three screens: 15% of the estimate; \$20,000 per MW that is the subject of the interconnection request; or \$7.5 million. In this way there is a “cap” so the customer will never have to post for than \$7.5 for the first posting. In contrast, the first interconnection financial security deposit amount for PTO’s Interconnection Facilities is 20% of the Phase I cost estimate.

In workgroup discussions and comments, some stakeholders have suggested that the GIP be modified to include similar provisions for “not to exceed” cap be included within for the PTO’s Interconnection Facilities. In these discussions, some customers noted that the Phase I interconnection study work is a “desktop” exercise which does not consider individualized information for each interconnection customer, such as the customer’s ownership of land or rights of way that might result in a savings in constructing their interconnection facilities as compared to a standard method of service. The PTOs acknowledged such facts but noted that the Phase I study time constraints and volume of interconnection customers in a queue cluster

do not permit for more particularized studies. In addition, the PTO's indicated, and some generator stakeholder's acknowledged that high PTO Interconnection Facility prices operate as a "price signal" to indicate that the interconnection customer's chosen point of interconnection may be suboptimal or otherwise an "outlier." In addition, some stakeholders stated that a call for a decrease in capital outlay for security deposits for PTO's Interconnection Facilities might contribute to the undesirable result of prolonging the presence of non-viable projects in the queue.

At the straw proposal stage, the ISO did not have a proposal to alter the financial posting amounts for the PTO's Interconnection Facilities.

For this draft final proposal, the ISO proposes to modify the financial security posting requirements for PTO's Interconnection Facilities to mirror the posting amounts required for Network Upgrades. The ISO was persuaded by the point that the Phase I interconnection study determinations of for the PTO's Interconnection Facilities are not individualized for the circumstances of the interconnection customer. While this is understandable due to time constraints in completing the Phase I study results, it may result in artificially high estimations for this facilities at the Phase I study phase. In addition, generator stakeholders indicated several issues which have arisen in Phase II interactions between customers, and the PTOs regarding the specifics of their configurations. One such recurring fact pattern relates to possible IC construction of redundant telecommunications lines when special protection schemes (SPSs) are necessary. The ISO believes that the need to engage in sometimes protracted discussions about each such issue may be diminished if the dollar level of the second posting for the PTO's Interconnection Facilities is lowered, and that this adjustment may take some of these detail negotiation points out of the LGIA negotiation.

7.4.6. Consider using generating project viability assessment in lieu of financial security postings

As comments to this stakeholder initiative, stakeholders First Solar, Brightsource Energy, and Large Solar Association ("LSA") submitted written comments suggesting that the GIP incorporate an opportunity for interconnection customers to make a demonstration of execution of a power purchase agreement, project licensing progress and/or capital expenditures in project development (such as financial securities posted with the buyer of a PPA) as a "discounting factor" posting amounts or an alternative to the requirement to make a first and/or second financial security posting. In subsequent work group discussions, stakeholder enXco also voiced support for such an addition to the GIP. After the work group meetings, the ISO also received a further written proposal from enXco. These stakeholders point to the "increasing generator commitment" policy of the advanced financial security postings and indicate that this alternative approach would provide interconnection customers an opportunity to demonstrate development viability without having to provide the additional capital outlay of the second financial security posting.

In work group discussions parties discussed and acknowledged that the inclusion of such demonstrations and need for evaluations would add to the resource demands of the GIP process. In counterpoint, Parties also concurred that there was near consensus that the queue is now over-subscribed, illustrated by the fact that Queue Cluster 4 applications number nearly 200, and propose to add some 35,000 in generation additions to the ISO-controlled grid. In this

regard, some parties suggested that reducing current financial security postings might not be the correct signal.

The ISO proposal does not incorporate this item

In this draft final proposal, ISO proposes not to include the option for interconnection customers to demonstrate alternative evidence of project viability in lieu of the current financial security postings. It is the opinion of the ISO that the subject matter is better addressed in a later GIP stakeholder initiative, where more thorough evaluation can be made to such questions as possible consequences on queue volume, identifying the proper indicia of viability in lieu of financial postings (or which operate as a discount factor); and how interconnection customers might package a demonstration of project viability so as to avoid or minimize the application of GIP resources in evaluating such materials.

It is likely that development of in this area may need to be detailed. For example, in the ISO's experience with the transition cluster, many interconnection customers are developing generation facilities in phases, under a business model which is somewhat in flux as the customer pursues multiple options for completion. Including the execution of a PPA as a substitution or reduction factor for a posting might be complicated by the fact that a PPA might not cover all phases or MW capacity of the facility, may include within the contract off-ramps for various contingencies (such as not to exceed cost estimates for the interconnection, licensing, or other development components). In processing the transition cluster, the ISO has found it necessary to complete LGIAs for many interconnection requests to engage in deeper evaluation of generating project specifics, the developer's plan for development and financing issues than the ISO believes FERC anticipated under the standardized LGIP process paradigm. Moreover the intake and evaluation of this project information may be challenging when queue clusters comprise 200 or more interconnection customers.

7.4.7. Consider limiting interconnection agreement suspension rights

On April 12, before the ISO issued the straw proposal, SCE submitted stakeholder comments which included a proposal to eliminate or limit the interconnection customer's ability to suspend construction under the pro forma LGIA. SCE indicated that the underlying concern was that, if a customer exercised the suspension provision for network upgrades commonly needed for a group of customers in the queue cluster, that the PTO would be effectively forced to continue construction of those upgrades under a circumstance where the construction costs might not be approved by FERC.

The ISO understands that the subsequent work group discussions served to allay SCE's concerns, rendering the proposed change unnecessary. In discussions, parties noted that the terms of the pro forma LGIA do not permit the interconnection customer to suspend PTO construction work as to network upgrades that are to be commonly used by interconnection customers.²³

²³ The pertinent provision, contained in LGIA Article 5.16 of the pro forma LGIA, states:

5.16 Suspension. The Interconnection Customer reserves the right, upon written notice to the Participating TO and the CAISO, to suspend at any time all work associated with the construction and installation of the Participating TO's Interconnection Facilities, Network Upgrades, and/or Distribution Upgrades required under this LGIA, *other than Network Upgrades identified in the*

7.4.8. Consider incorporating PTO abandoned plant recovery into GIP

SCE's April 12 comments included a proposal to "add to the GIP a provision whereby the PTO has pre-approved eligibility for 100% abandoned plant cost recovery for the network upgrades that the PTO is required to upfront finance due to the GIP provisions of the CAISO Tariff." SCE Straw Proposal to be added to GIP Stakeholder Process, submitted by Gary Holdsworth for SCE, April 12, 2011, at p. 2 (see p 64 of ISO Straw Proposal)

In the April 28 stakeholder meeting and in subsequent work group discussions, SCE has clarified its proposal. In the April 28 meeting, SCE clarified that it meant to refer to "upgrades that the PTO is required to upfront finance due to the *TPP* provisions of the CAISO Tariff," since SCE acknowledged that the GIP does not require the PTO to fund network upgrades. In work group discussions, SCE clarified that one of the reasons for the proposed provision is to avoid the need for the PTO to make repeated filings to the FERC on a case-by-case basis. In addition, SCE also indicated that it might have concerns about whether it might face cost exposure for continued construction of a TPP-approved "upsized" of a network upgrade if interconnection customers dropped out of the GIP queue after the Phase II interconnection studies and SCE were required to step in, upfront fund the facilities, and construct the facilities – a situation where SCE has involuntarily been required to do this. In this regard, the ISO understands SCE's concern to be that recovery through TAC of continuing expenses incurred by SCE might be in doubt and subject to disallowance by FERC, and that this exposure could arise involuntarily.

The ISO does not yet have a position on SCE's proposal and is interested in stakeholder input on this topic. The ISO is also interested in SCE explaining in more detail the cost-exposure risk and offering a draft of the additional tariff provisions that SCE would propose.

7.5. Work Group 5 - LGIP Technical Assessments

7.5.1. Partial Deliverability as an interconnection option

Currently two deliverability status options are provided to the GIP interconnection requests under the Independent Study Process and Queue Cluster Process – Full Capacity (FC) or Energy Only (EO). Under the Queue Cluster Process, the generation interconnection project that has selected the FC option for the Phase I study could change the desired deliverability status to EO within 5 business days following the Phase I results meeting.

The ISO proposes to add a third deliverability status Partial Deliverability (PD) as an option to provide more flexibility and help the interconnection customers manage the cost responsibility associated with the delivery network upgrades. The interconnection customer could select PD and specify the desired PD level in MW in the interconnection request. The PD level in MW is the amount of installed capacity that requires deliverability.

Phase II Interconnection Study as common to multiple Generating Facilities . . . (emphasis added).

The pro-forma LGIA used under the GIP process can be accessed on the ISO website at <http://www.caiso.com/2b18/2b1877f6493a0.pdf>.

The ISO proposes to allow the following changes to the deliverability status after the completion of the Phase I study:

- Change from FC to EO
- Change from FC to PD with a specified PD level in MW
- Change from PD to EO
- Reduction of PD level to a new specified PD level in MW or EO.

Pursuant to current Tariff Appendix Y section 6.5.2.1, the ISO performs analysis to estimate the MW of deliverable generation capacity for the individual or group study if the highest cost delivery network upgrade component were removed from the preliminary delivery network upgrade plan. The ISO will continue performing the analysis and provide the advisory information. The advisory information could be used by the interconnection customers to address potential modifications to the deliverability level after the completion of Phase I interconnection study.

7.5.2. Conform technical requirements under the LGIA

In October 2010, the Federal Energy Regulatory Commission accepted the ISO's request to expand the applicability of Appendix H of the LGIA to all Asynchronous Generating Facilities, not just wind generators. The revised Appendix H clarified that all Asynchronous Generating Facilities, including solar photovoltaic technologies, must (1) satisfy specific low voltage ride-through (LVRT) and frequency ride-through requirements, and (2) operate within a power factor range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection, if the Phase II interconnection study shows that such a requirement is necessary to ensure safety or reliability. Currently, Section 1.8 of Appendix T, the SGIA, requires small generators to operate within power factor range of 0.95 leading to 0.90 lagging, except for wind generators. Wind generators are governed by Attachment 7, which largely tracks the provisions of Appendix H of the LGIA. This leads to two suboptimal outcomes that must be remedied. First, large asynchronous solar photovoltaic resources have a less stringent reactive power requirement than small solar photovoltaic resources. Second, "sympathetic tripping" by small solar photovoltaic facilities may exacerbate the impact of a disturbance because of the absence of any applicable ride-through standards.

The ISO proposes that the same technical requirements be applied to both small and large asynchronous generating facilities that interconnect to the ISO Controlled Grid. To implement this change the ISO would update Attachment 7 of the SGIA with the same provisions that are in Appendix H of the LGIA.

To align with the technical requirements for the asynchronous generating facilities, the ISO proposes to modify and organize Item 11 of Attachment A to GIP Appendix 1 Interconnection Request for the wind turbines and inverter based generation systems. The data specific to the induction generators will be moved from Item 11 to Item 7. The inverter data entries, such as maximum AC line current, inverter control mode and harmonics characteristics will be added to Section 11.

7.5.3. Revisit tariff requirements for off-peak deliverability assessment

Tariff Appendix Y section 6.5.2.2 requires the ISO to conduct an off-peak deliverability study for interconnecting generators where the fuel source substantially occurs during the off-peak hours (i.e., wind). This requirement could require these generators to fund full capacity deliverability

upgrades based on an off-peak deliverability assessment. But since deliverability is a resource adequacy concept for the purpose of establishing NQC, which exists for the purpose of ensuring the deliverability of energy from RA resources to meet peak demand, this off-peak requirement does not align with the original concept and purpose of deliverability. The ISO would make changes to the off-peak study requirement so that deliverability remains an RA-based peak-hour concept and the network upgrades required for the resource to obtain FC status align with that concept.

Pursuant to Tariff section 24 reflecting the revised TPP approved by FERC in 2010, the ISO now has the comprehensive transmission planning process in place to identify transmission additions and upgrades needed to meet state and federal policy requirements and directives, and reduce congestion costs, production supply costs, transmission losses, or other electric supply costs results from improved access to cost-effective resources. Because off-peak energy deliveries are more related to these TPP concerns rather than RA deliverability, the ISO believes that the TPP is the appropriate venue to determine the network upgrades needed for off-peak energy delivery.

The ISO proposes that the off-peak deliverability assessments are performed for informational purpose only. For these assessments, the interconnection projects requesting Energy Only deliverability status will be dispatched at the same level as similar projects requesting Full Capacity deliverability status. For the transmission system limitations identified in the off-peak deliverability assessment, the ISO will identify conceptual network upgrade mitigations. Per unit estimated cost and typical permitting and construction time for the conceptual mitigations will be identified for informational purposes.

7.5.4. Operational partial and interim deliverability assessment

Parties have asked the ISO to consider allowing temporary use of deliverability capability for a later queue position project that achieves commercial operation before an earlier queue position project.

The ISO proposes to perform an operational partial and interim deliverability assessment as part of the Cluster Phase II interconnection study. The operational deliverability assessment is performed from the next year to the year when all the required delivery network upgrades are in-service. The next year assessment could be used by the ISO annual NQC process for the next RA Compliance Year. The rest of the future year assessment is advisory and provided for informational purpose only.

The operational deliverability assessment follows the same on-peak deliverability assessment methodology as posted at <http://www.caiso.com/23d7/23d7e41c14580.pdf> and takes a similar approach as specified in the technical bulletin issued last year called the *Partial Deliverability Analysis for Generation Interconnection Transition Cluster Phase II Projects* (<http://www.caiso.com/2802/2802860e49b50.pdf>).

The key components of the operational deliverability assessments are discussed below.

Generation Interconnection Project Commercial Operation Date

The assessment models the generation projects according to their Commercial Operation Date (COD). The latest COD information will be collected as specified below:

- COD in the Generation Interconnection Agreement (GIA) for GIA executed or filed unexecuted to FERC
- estimated COD in the latest study report for projects that have completed the interconnection studies but haven't signed the GIA
- the requested COD for projects in the current cluster

The COD will be further scrutinized for feasibility and adjusted if deemed infeasible. Factors used to adjust the COD include:

- Status and progress of the interconnection study or GIA
- PTO estimated time to complete the interconnection facilities and network facilities required for the interconnection
- Other information provided by the IC, such as letter of agreement to advance construction of interconnection/network facilities, generation facilities construction status.

The adjusted COD will be used in the operational deliverability assessment. In particular, projects that have not signed LGIA or not under construction are not considered as reasonable to have COD in the next year. The COD for such projects will be adjusted to a later future year.

Study Years

The assessment will be performed for each future year until the year before all the required delivery network upgrades in-service for the study group. For example, if the 2012 study cycle identifies delivery network upgrades to be in-service in 2019, the operational deliverability assessment will be performed from 2013 to 2018.

Modeling Requirements

For each of the study year, the assessment will model the generation projects with adjusted COD in or before the study year and network upgrade components that are projected to be in-service in or before the study year. In case a generation project will be implemented in phases, the phasing of the project will be modeled.

The resources, including generation, load, and import, will be modeled in accordance with the on-peak deliverability assessment methodology.

Method for Allocating Deliverable Partial Capacity

Assuming the system conditions cannot accommodate the full deliverability of all generators in the study area that will be in commercial operation for the study year, the partial deliverability of each generator is allocated as a function of the queue position, generator's size and its flow impact on the transmission constraint that is binding in the deliverability power flow.

For each deliverability constraint facility, the available capacity without the generation projects being tested is allocated to projects in the order from higher queued projects to lower queued projects until it is depleted. The projects in the same cluster are considered to have the same queue position. If there is available partial capacity for projects in the same cluster, the capacity is allocated based on the generator's size and its flow impact.

The project's partial deliverability level for a study year is the minimum of allocated partial deliverability capacity for all identified deliverability constraints.

7.5.5. Post Phase II re-evaluation of the plan of service

SCE has proposed to add to the GIP the ability for PTOs to request a re-evaluation of the post Phase II plan of service. Plan of service may require re-evaluation for various reasons, such as withdrawals of generation interconnection projects, licensing outcome, etc. Included in the re-evaluation, would be a provision whereby network upgrades that are no longer required due to withdrawing generation are removed from the pre-cluster base cases for future cluster studies.

The current tariff does not preclude a re-evaluation. The tariff states that *"The obligation under this GIP Section 12.2.2 arises only after the CAISO, in coordination with the applicable Participating TO(s), determines that the Network Upgrades remain needed to support the interconnection of the Interconnection Customer's Generating Facility notwithstanding, as applicable, the absence or delay of the Generating Facility that is contractually, or was previously contractually, associated with the Network Upgrades."*

The ISO, in coordination with the PTOs, has been making the determination whether the Network Upgrades identified for the previous clusters remain needed for generation interconnections in the previous clusters upon commencement of a cluster Phase I or Phase II study. If it is determined that they are not needed, such Network Upgrades have been removed from the pre-cluster base cases. However, a more thorough re-evaluation is yet needed to modify the plan of service for generation projects that have completed the Phase II studies. The impact on the cost responsibility and GIA needs to be addressed. The ISO proposes to address the issues as a sub-topic of TPP and GIP integration being resolved by Work Group 1.

8. Next Steps

The ISO will host a meeting on June 3 from 10:00 a.m. to 4:00 p.m. to discuss the draft final proposal and answer questions. Prior to the June 3 meeting, the ISO will post a template for stakeholders to use when submitting written comments. The ISO requests that stakeholders submit written comments on the straw proposal by close of business June 10. However, if stakeholders want to offer comments in advance of the June 3 meeting, they are encouraged to submit those comments by close of business on June 2. All comments should be sent to GIP2@caiso.com. The ISO will post the written comments that it receives to the following web address: <http://www.caiso.com/2b21/2b21a4fe115e0.html>. The next round of work group meetings will take place the week of June 13; exact dates and times will be sent to stakeholders the week prior.

In the next round of work group meetings, participants will analyze and discuss the merits of the draft final proposals for each group's topics, with the goal of developing additional details and identifying ways to improve the proposals. After the ISO receives the written comments on June 10, work group leads may be contacting stakeholders on their topics to request additional information or clarification of their comments to be provided prior to or at the work group meeting.