

Stakeholder Comments Template

Subject: Small and Large Generator Interconnection Procedures Draft Final Proposal and Meeting

Submitted by	Company	Date Submitted
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This template was created to help stakeholders submit written comments on topics related to the July 20, 2010 Small and Large Generator Interconnection Procedures Draft Final Proposal and July 27, 2010 Small and Large Generator Interconnection Procedures Stakeholder Meeting. Please submit comments and thoughts (in MS Word) to dkirrene@caiso.com no later than 5:00 pm PDT August 4, 2010.

Please add your comments where indicated responding to the questions raised. Your comments will be most useful if you provide the business case or other reasons why you support particular aspects of the proposal. Any other comments on the proposal are also welcome. The comments received will assist the ISO with the development of the FERC filing of modified tariff language.

Overall Assessment of the ISO Proposal

In September, the ISO Board of Governors will be asked to authorize a filing at FERC of tariff language to implement the elements of the Draft Final Proposal (with possible modifications in response to this round of comments).

1. Do you support ISO Board approval of the proposal? Why or why not?

Southern California Edison (SCE) supports ISO Board approval of the SGIP Reform proposal, with certain adjustments that SCE will outline in these comments. SCE believes the proposal provides the only feasible way for the CAISO and PTOs to effectively and efficiently interconnect new generation resources, regardless of size or generation type, to the CAISO grid. The proposal builds upon the experience of grid planners, both at the CAISO and PTOs, that was gained from implementing the prior large generator interconnection reform. Without a fully integrated interconnection study process, one which takes advantage of efficiencies provided by cluster/group studies, and added features such as cost caps and graduated financial security, interconnection customers will continue to face frustrating delays in executing interconnection agreements and much uncertainty as to the cost of their required network upgrades.

The current SGIP is technically infeasible. Consequently, it puts developers at a disadvantage and presents them with significant risk exposure. Unless FERC is willing to rule that SGIP development be subsidized by LGIP development, it is technically infeasible to provide a System Impact or Facilities Study without incorporating the effects of clustered studies of queued-ahead large generators.

The CAISO proposal provides generation developers with advantages over the incumbent serial process, including a higher level of certainty as to the cost of required network upgrades and a more equitable method of allocating the cost of such network upgrades among generation projects that trigger the need for the network upgrades. Of course, such advantages come at a cost -- developers will need to wait a few more months to complete the studies and will pay a larger amount up front for those studies. The fact that the CAISO proposal lengthens the interconnection study timelines over the incumbent process is balanced by the IC receiving a good-faith estimate of required upgrades (the Phase I study) in a timeframe expected to be sooner than the IC could have received the System Impact Study under the serial study timeline, and certainly faster than during the current backlogged and broken down serial process could ever provide. Moreover, SCE emphasizes that the CAISO proposal solves the current challenge of interdependency between a clustered LGIP and the serially-studied SGIP, while adding such holistic benefits as furthering the integration between the interconnection study process and the annual transmission planning process for the CAISO Balancing Authority Area. The CAISO proposal also allows SGIP-sized interconnection requests to seek full capacity deliverability status and qualify for Resource Adequacy, a move that will provide both ICs and PTOs with additional tangible benefits heretofore unattainable.

2. Do you believe the proposal accomplishes the objectives this initiative was intended to address? If not, please explain.

SCE believes the proposal is well on its way to accomplish the objectives, to develop a robust, efficient unified and integrated set of interconnection procedures that will bring more order to a highly chaotic process, address the large backlogs of interconnection requests in the most expeditious method possible, provide tangible benefits to both ICs and PTOs, reduce risk, help the State meet its RPS goals, and help ICs meet its business objectives.

As in all stakeholder processes, compromises occur. Some ICs object to the proposal because it extends the timeline for the SGIP requests versus the current SGIP, while actually shortening the timeline for the LGIP requests. Some stakeholders appear to believe that the current (flawed, in SCE's view) serial SGIP process is superior to any of the proposed solutions. Others believe that solving the challenge is simply a matter of adding engineering and transmission planning resources to resolve the backlog. SCE strongly disagrees with each of these views. It is precisely the interdependency issue between serial and clustered interconnection studies, as clearly explained in the draft Final Proposal, which is the fundamental driver behind the breakdown of the current serial SGIP study process. The dramatic increase in volume of interconnection

requests exacerbates the challenge, but the interdependency issue would occur if there were only a handful of SGIP and LGIP interconnection requests that were electrically related to each other in a given region. With more than 250 active SGIP requests in SCE's territory, the interdependency issue has rendered the interconnection process completely unworkable for all but those SGIP applicants that can qualify for the "fast-track" process.

3. Do you believe the proposal reflects an appropriate balance of the various stakeholder interests and concerns raised in this process? If not, please explain.

SCE believes that many features of the draft Final Proposal were the direct result of the CAISO's efforts to be responsive to the requests and concerns of the IC stakeholders. SCE supports many of these features, such as the addition of a second request window, with the provision for a scoping meeting, give ICs more than one "shot" at having their applications evaluated for the Independent Study Process (ISP) in a given year. It is important to note that these scoping meetings must occur at times of the year that cluster studies are not occurring, because the same planning/engineering resources are required for both. Stakeholder concerns over the size of study deposits, security postings, and deliverability assessments were all addressed during the stakeholder process. Balancing these efforts, the CAISO has addressed PTO concerns over the mechanics of performing interconnection studies for an unprecedented volume of interconnection requests, and have eliminated the interdependency problem by integrating the study process regardless of MW size. After all, this reform effort would be for naught if there was no improvement in the ability for the CAISO and PTO planners to complete interconnection studies on a timely basis. The CAISO proposal builds on real-world experience with the LGIP Transition Group, which has now completed the cycle of Phase I and Phase II studies, and has proven to be a dramatically more effective and efficient process.

Proposed Study Deposit Amounts and/or Processing Fees

1. In general, do you support the proposed study deposit amounts and/or processing fees?
2. If not, what modifications are needed and why?

SCE supports the latest modified study deposit amounts, and agrees with the application of the same fee structure for both Energy Only and Full Capacity projects. SCE recommends, as a slight modification, that the study deposit amount be calculated based on the MW output in the IC's interconnection request rounded up to the nearest whole MW. For example, an interconnection request for 10.1, 10.5, or 10.9 MW would all be calculated as 11MW for deposit purposes. This slight adjustment will encourage ICs to size its interconnection requests appropriate to their land/rooftop size, without seeking to "game" the study deposit by \$1,000 by requesting, for example 9.99 MWs when, in reality, they are seeking to interconnect 10 MW. Round numbers are also more helpful when performing the interconnection studies and in allocating the cost of network upgrades resulting from the studies.

SCE understands SDG&E's concern that the "fast-track" study deposits are low compared to the cost of non-fast-track applications. However, SCE believes the "fast-track" deposits are appropriate as currently sized at a non-refundable \$500 fee and study deposit of \$1,000. SCE notes that ICs are invoiced and pay actual administrative and/or study costs regardless, even for fast-track projects.

Proposed Annual Cluster Study Track

1. In general, do you support the ISO's proposal to study projects of any size in a single, unified cluster?
2. If not, what modifications are needed and why?
3. If you do not support a single cluster approach in any form, what would be your preferred alternative and why?

SCE reiterates its comments from above, that only a single, unified study approach solves the interdependency issue, and only this solution will allow ICs to meet their desired objectives, which are to know with as much certainty as possible, and with as little delay as possible, the requirements for them to interconnect their generation resource to the grid. Continuing any type of non-clustered serial process (except for those projects that qualify to be studied independently, or via the "fast-track") will only result in more delay and more uncertainty as to cost responsibility for ICs.

SCE likewise objects to any proposal to increase the number of study cycles per year. The stakeholders floating these proposals likely do not appreciate the level of effort and coordination among multiple disciplines within the CAISO and PTOs, including not only system planners and engineers on both the distribution and transmission levels, but also substation and protection engineers, system operators, real estate, environmental, licensing, telecommunications, financial/accounting, construction management, contract origination, and regulatory groups, in order to produce a valid study report. These various disciplines have now experienced a full cycle of interconnection studies in the LGIP Transition Cluster, and know the exact requirements needed to complete clustered studies under a set timeframe. CAISO and PTOs have made valuable improvements to their internal processes in order to complete the unprecedented volume of Transition Cluster Phase I and Phase II studies on time. Based on this experience, SCE can commit to performing Phase I and Phase II GIP studies per the outline in the CAISO proposal, but is opposed to any deviation from those timelines.

Second Application Window – Scoping Meeting

1. In general, do you support the ISO's proposal to open a second application window to receive interconnection requests for the purpose of receiving a scoping meeting?
2. If not, what modifications are needed and why?

SCE can see the value of adding this second application window during the year, and a scoping meeting can provide valuable information to an IC as to the favorability of its location. As proposed, the timing of this second window is favorable to for PTO

resources, in that it is not occurring at the same time as any studies (occurs in between the Phase I and Phase II studies); however, since the Phase I security posting may not have occurred by the time the scoping meeting has been held, the “base case” information may not fully reflect any upgrades scoped during the just-completed Phase I study. SCE sees no better alternative, and will continue to rely on best engineering judgment in these intra-cycle scoping meetings as to the impact of the just-completed Phase I studies.

As an aside, SCE views the requirement (as found throughout the CAISO draft Final Proposal) that “the project demonstrates that the requested commercial operation date (COD) cannot be met if the project is studied in the next annual cluster” is a red herring. It is SCE’s experience that ICs do not often request realistic CODs in their applications. If given the choice, nearly all ICs would prefer a COD sooner than is practicable were it not for the time-consuming interconnection study process. As a result, SCE believes that this requirement should be more of a positive affirmation, not a negative affirmation; i.e., that the IC must demonstrate that it *is capable of* meeting its requested COD, but that if studied in the cluster process, the IC would not meet its requested COD. Demonstration that it can meet its requested COD could include criteria such as site control, permitting, and equipment, similar to the criteria used to determine eligibility for the ISP.

Second Application window – Enter Cluster at Phase II

1. In general, do you support the ISO’s proposal to open a second application window to receive interconnection requests for the purpose of waiving the Phase I study and entering the cluster for study at the Phase II study?
2. If not, what modifications are needed and why?

Second Application Window – Enter Cluster at Phase II Criteria

1. In general, do you support the ISO’s proposed criteria to qualify a project to waive the Phase I study and enter the cluster at the Phase II study?
2. If not, what modifications are needed and why?

SCE objects to the draft Final Proposal’s recent addition that would allow certain ICs to bypass the Phase I studies and enter into the process at Phase II. SCE cannot support the CAISO’s efforts in this area, regardless of the criteria as outlined in the draft Final Proposal; that such requests must be Energy Only, and the lack of a cap on any network cost responsibility determined in the Phase II study.

SCE is greatly concerned that this feature appears to incent poor behavior among the ICs. First, it incents more applicants to choose Energy Only interconnections, with the hope that later they could be converted to Full Capacity after a separate IC finances needed network upgrades. SCE believes the CAISO should encourage more FC applications in order to reduce congestion throughout the transmission system. Second, this feature incents an IC choosing the artificial 20 MW project size to seek to move through the process faster (bypassing Phase I); and, it creates more likelihood of ICs withdrawing after Phase II if they don’t like the results of what would be their first

interconnection study, particularly since their network cost exposure would not be capped.

Withdrawals after Phase II could be very disruptive to all participants in the study process. Since there is no restudy provision in the current tariff (although there is an important ability for PTOs and CAISO to concur on changes to the plan of service at a late date), such withdrawals should be avoided at all costs. Under the CAISO proposal, however, such withdrawals are much more likely to occur.

In addition, one of the compromises that the PTOs agreed to in the original LGIP reform effort was the cost cap on Phase I estimates. The PTOs agreed that if the plan of service changed in Phase II, being more costly than Phase I, then the PTOs would finance the difference above the capped Phase I estimates. Under the CAISO's draft Final Proposal, there is the possibility of more entrants prior to Phase II. Even if these new entrants are not capped, there is more opportunity to trigger incremental upgrades that might exceed the Phase I cost caps, and thus more opportunity for ICs to shift financing responsibility for expensive upgrades to the PTOs.

Finally, SCE is concerned that allowing a bypass of Phase I adds unnecessary complexity to the Phase II study. Phase II is expected to be a refinement of Phase I, rather than a whole new study, and the aggressive but not impossible timelines for Phase II study reflect this expectation. If new projects never before studied can enter into Phase II, the Phase II Study will become in essence a new study with added complexities and uncertainties which can make the Phase II study timelines unreasonable. Phase II is complex enough already, with having to take into account withdrawn generation, and the interaction with the TPP. SCE strongly recommends the CAISO re-think and re-work this portion of the draft Final Proposal, as the expected pitfalls (more EO applications, delays and complexity in Phase II study, cost shifting to PTOs) far outweigh any purported benefits (a faster trip through the study process for certain generators).

Coordination with the Transmission Planning Process

1. In general, do you support the ISO's proposal to reevaluate certain network upgrades in the Transmission Planning Process?
2. If not, what modifications are needed and why?
3. If a network upgrade is selected for reevaluation by the Transmission Planning Process should the associated generation project proceed with a Large Generator Interconnection Agreement that contains a provision to allow for later amendment of the Large Generator Interconnection Agreement if warranted by the Transmission Planning Process reevaluation results? Why or why not?

SCE believes the TPP is the appropriate forum to address "upsizing" of LGIP-driven network upgrades; however, SCE remains concerned about the added delay that evaluation under the TPP can create for ICs in executing LGIAs. In addition, SCE remains concerned that since FERC has accepted and suspended the CAISO's TPP

tariff revisions, which creates uncertainty as to whether FERC will uphold or deny a PTO's right of first refusal for LGIP-driven upgrades, that the mechanics of how the TPP will evaluate LGIP-driven upgrades remains unclear. Likewise unclear is which party will be financially responsible for financing any upsizing of plans of service. For example, under its rights, PTOs may elect to upfront finance a certain network upgrade as developed under the interconnection studies. But for various reasons, it may not elect to upfront finance an expansion of that network upgrade developed by the TPP. If this occurs, which party will then be assigned the responsibility to finance the expanded upgrade? SCE understands this may be the topic of a future stakeholder process, but the lack of clarity on this matter makes fully supporting the draft Final Proposal difficult as it pertains to this issue.

Independent Study Processing Track

1. In general, do you support the ISO's Independent Study Processing Track proposal?
2. What modifications are needed and why?
3. What specific aspects of a developer's project development process make it impossible for a developer to demonstrate eligibility for the Independent Study Processing Track at the time of the Interconnection Request?

SCE supports the existence of the ISP, but reiterates its previous comments that the only criterion that matters to SCE is the independence criteria (4.3.1.3). Many the other criteria are quite permissive; for example, SCE believes that the "has obtained, or has demonstrated the ability to obtain" and "reasonable evidence" clauses in items 4.3.1.1, 4.3.1.2, and 4.3.1.3 are not particularly stringent. SCE further would suggest removing any discussion of a PPA in relation to criterion 4.3.1.3, as a PPA does not provide any evidence of resources to provide financial security postings.

As discussed in the stakeholder meeting, it appears that the first application in a given area has the best opportunity to qualify for the ISP, and that successor applications will likely have to go through the study process. Therefore, pre-application information about the state of the transmission system may increase in value. As a result, SCE has commenced a review of what additional pre-application information could be provided to stakeholders (see comments at end of the template).

Fast Track less than 2 MW

1. Should the ISO remove the 10th screen from the Fast Track? Why or why not?
2. Should the ISO increase the size limit for Fast Track qualification? If so, would you support a 5MW size limit or a different value? Explain your reasons.

According to SCE's distribution engineers, 2 MW is, generally speaking, the maximum amount of generation that can be added to a single distribution circuit in SCE's territory without triggering the need for substantive upgrades. Of course, the location of the 2

MW of generation is key, as 2 MW added somewhere in the LA Metro area would be more likely to require fewer upgrades, than 2 MW located on a rural circuit with minimal load. SCE opposes the fast track size be increased to 5 MW, because generation injections of that size will nearly always trigger the need for upgrades and will require interconnection studies to determine system impacts, regardless of location. As a result, increasing the fast track to 5 MW in an effort to avoid interconnection studies would have negative impacts on reliability and jeopardize the safe operation of SCE's distribution grid.

The "fast-track" was originally designed to accommodate interconnection to an existing retail service, to serve its own load, with export being an afterthought. This explains the existence of Screen No. 10 in the current Fast Track SGIP language. However, since virtually all new interconnection requests are no longer focused on serving local load but are purposely designed for export of power to the grid, the fast-track Screen No. 10 has lost its relevance in the study process and could be removed.

Method to Determine Generator Independence

1. In general, do you support the ISO's proposed method to determine generator independence?
2. If not, what approach would you propose for determining generator independence? Explain why your proposed approach is superior to the ISO's proposal.
3. If you prefer completely eliminating the independence criterion to qualify for the Independent Study Processing Track, how would you address the concern about impacts of Independent Study Processing Track projects on other interconnection customers (including cluster projects) in higher queue positions?

Without criterion 4.3.1.3, SCE will not support the existence of the ISP, because it would create the opportunity for material system impacts to be shifted from ISP applicants who trigger them to non-ISP applicants, in what would clearly violate fairness principles.

SCE generally supports having objective measures for generator independence, but would suggest that just as the power flow has both a test for incremental and aggregate power flow, the Short Circuit Duty must also be evaluated for incremental as well as aggregate impacts.

Deliverability Proposal

One-Time – Enter Cluster 4

1. In general, do you support the ISO's proposal to allow a one-time deliverability assessment to obtain Full Capacity during cluster 4?
2. If not, what modifications would you support and why?

Annual – Available Transmission

1. In general, do you support the ISO's proposal to provide an annual opportunity for qualified projects to request and obtain Full Capacity using available transmission?
2. If not, what modifications would you support and why?

SCE will reiterate some of its earlier comments on the Deliverability Assessment from the straw proposal. SCE believes strongly that all sizes of new generation resources should be eligible to be evaluated through a CAISO-administered deliverability assessment in order for them to be able to qualify as RA capacity. SCE's procurement process mandates Full Capacity deliverability (FC), and as such believes that large amounts of Energy Only (EO) capacity could be disruptive to competitive wholesale markets, and that the CAISO should not be creating measures that encourage more EO generation.

SCE does not see much difference between the so-called "Option 3" and the original Option 1 that was in the straw proposal, other than that in Option 3 an EO generator must request to be allocated available transmission capacity. SCE continues to view the "handout" of available transmission capacity as conveying a "benefit" (changing from EO to FC and the ability to count towards RA) to a generator that did not originally request FC status, presumably to avoid the more equitable (and challenging) task of allocating limited deliverability capability based on generators request through the interconnection process.

SCE remains concerned about how delivery upgrades that are triggered by generators changing from EO to FC (at any time) are both determined, as to the plan of service, and financed, as to which parties are allocated the financing responsibility for the delivery upgrades. The only way SCE sees to allocate financing responsibility in an equitable way is to require interested generators to change from EO to FC through a "deliverability study only" application to the interconnection process. Under this approach, which aligns with half of CAISO's Option 3, all generators (new and existing) will be treated comparably and the generators that wish to continue as EO status will have the option of not pursuing further study. As SCE believes the interconnection study process is the best (and only) method of determining "who triggers" and "who pays" for delivery network upgrades, it supports the "one-time" evaluation in Cluster 4, but would require any conversions from EO to FC in the future (whether interconnected or new applications) to be evaluated through the interconnection study process.

The CAISO should make it clear that such interconnection studies would be based on the current base case, not the base case at the time the EO generator entered the study process, or executed its LGIA. SCE also reiterates that it remains unclear in the CAISO proposal just how delivery upgrades will be financed by generators that are already operational. Will they be subject to refund? And, how will the upgrades be refunded, within five years of completion of the upgrades and achievement of full deliverability?

A few additional thoughts regarding the "annual opportunity" and criteria as outlined in Option 3.

1. SCE wonders how a generator will be able to achieve project financing for a project that “might” be granted full capacity at some future undetermined time. This fact alone may render the annual opportunity moot, as generators will find the need to choose FC capacity in order to secure financing and PPAs.
2. CAISO should define “available transmission” as is found in 4.4.2.2(2) and elsewhere within the draft Final Proposal.
3. SCE supports the CAISO in granting a lower prioritization for NQC purposes for “newly converted FC” from “originally requested FC” projects. SCE believes one of CAISO’s primary objectives is to reduce transmission constraints caused by congestion. Were the “newly converted FC” generation found to add to congestion levels, it is only fair that such generation (and only the offending generation) should be penalized for its degradation of the transmission system. In such case, SCE supports the CAISO proposal that a separate NQC list be maintained to distinguish between the two types of FC generation. Again, SCE does not see the ability for generators subject to future NQC reduction to obtain financing for its generation project.

Financial Security Postings

1. In general, do you support the ISO’s financial security postings proposal?
2. What modifications are needed and why?

SCE generally supports the CAISO’s proposal, with the addition discussed in the stakeholder meeting of an exemption of some sort from the “minimums” for very small \$ amount upgrades. SCE could see the benefit of using a volumetric approach to calculate the posting amount, much like the volumetric approach being implemented in the study deposit calculation but has no specific formula to discuss at this time.

Transition Plan

1. In general do you support the ISO’s proposed transition plan?
2. What modifications are needed to all you to support the ISO’s transition plan?

SCE remains concerned about the large size of the potential SGIP Serial study group, however, SCE now supports the transition plan as outlined, with the caveat that the CAISO must inform each IC in the SGIP Serial study group, with generator acknowledgement, that there is no guarantee nor expectation that their Serial studies will be completed any sooner than the SGIP Transition Group clustered study group.

This point cannot be emphasized enough. SGIP Reform is absolutely required because of the technical impossibility of conducting studies for developers per current timelines when such studies are dependent upon studies for clustered projects that are ahead in the queue.

For those ICs that remain in the SGIP Serial group, SCE sees that ICs really have only two options to choose from:

1. A quality study: For the ISO/PTO to provide a good quality study report, one that has reasonable, and financeable, cost estimates, the ISO/PTO must await conclusions from Phase II reports of any cluster studies of requests ahead in the queue, which may take several months to a year or more to complete.
2. A faster/expedited study: Should an IC prefer expedience over quality, the ISO/PTOs could offer a prompt System Impact or Facilities Study. Such a study would have plenty of caveats that explain that the plan of service and related cost estimates may vary significantly once results are in from Phase II studies of queued-ahead generation. This type of study would really have no technical value, but may be of some value to the IC.

What aspect of the ISO's Draft Final Proposal do you find most favorable?

What aspect of the ISO's Draft Final Proposal do you find least favorable? Please provide the business case or other rationale for your answer.

Do you have any additional comments that you would like to provide?

Pre-Application Information:

In seeking to be responsive to IC stakeholder requests, SCE has committed to provide ICs with regular updates of its distribution-level capacity on its website. This information, in Google Maps format, is the same as the information provided to parties interested in participating in SCE's rooftop solar (SPVP) competitive solicitation program. This information is updated monthly and can be found at the following link: <http://www.sce.com/energyprocurement/renewables/spvp-ipp>

SCE is currently evaluating whether it can commit to include additional information regarding its transmission-level capacity in a similar manner and will inform the CAISO and stakeholders if and when it can commit to provide such information, what will be the frequency of update of such information, and how SCE will communicate the information to interested parties.