

Stakeholder Comments Template

Subject: Generator Interconnection Procedures Straw 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 May 26, 2010 Generator Interconnection Procedures Straw Proposal and June 3, 2010 Generator Interconnection Procedures Stakeholder Meeting. Please submit comments and thoughts (in MS Word) to dkirrene@caiso.com no later than the close of business on June 21, 2010.

Please add your comments where indicated responding to the questing raised. Your comments on any other aspect of the proposal are also welcome. The comments received will assist the ISO with the development of the Draft Final Proposal.

[General Comments on Straw Proposal](#)

Southern California Edison appreciates the opportunity to provide comments on the CAISO's generator interconnection reform Straw Proposal dated May 26, 2010. SCE commends the CAISO and stakeholders for responsiveness to a challenging situation, one which requires immediate attention. The challenge with the current Small Generator Interconnection Procedures (SGIP) is two-fold – volume and LGIP/SGIP study interdependence. First, SCE has received an unprecedented volume of interconnection requests (under the TO tariff, and especially under SCE's WDAT tariff). Second, it is not possible to process the large numbers of serial SGIP studies in a timely basis because of their interdependency with large numbers of clustered Large Generator Interconnection Procedure (LGIP) requests. SCE believes that the CAISO's straw proposal addresses solutions to both challenges -- the large volume of requests and the interdependency between LGIP and SGIP requests.

Key to solving both challenges is the integration of the LGIP and SGIP interconnection studies into a single, unified, clustered study process. SCE supports this unification as the only way to solve the interdependencies between the two study processes. Experience with the Transition Cluster has proven that clustering is more efficient in studying interconnection requests for network impacts, and is more equitable

in allocating the financing responsibility for those network upgrades. Dissolving the arbitrary 20 MW boundary between LGIP and SGIP is necessary to address changes in business models created by changes in generation technologies. Integrating the two processes has another benefit in that interconnection customers (ICs) have less incentive to carve up certain larger projects into 20 MW “chunks” in an apparent effort to avoid the longer and more costly LGIP process. Any perceived benefit of such “piecemealing” diminishes due to the increase in study deposits, and the fact that the interconnection study process will now take the same amount of time (with the LGIP timeline shortening).

The CAISO’s straw proposal importantly retains the “2MW or less” fast-track and the “sub-10kW inverter process” that exists in the current SGIP, both of which are designed as lower-cost expedited interconnection study processes geared towards generation projects that have no material network impacts. SCE’s experience supports the sizing of the “fast-track” SGIP process to 2MW and below. In addition, the CAISO straw proposal includes an independent study process (ISP) that IC’s can apply for at any time, regardless of MW size, to determine if their generation project triggers any material network upgrades. In our comments below, SCE proposes the addition of some clarifying structure around the ISP that should aid in the successful implementation of this process.

Furthermore, SCE supports the CAISO and stakeholder’s efforts to bring a deliverability assessment to generation requests under 20 MW (that do not qualify for the “fast-track” process). The substantial amount of generating capacity opting to interconnect under the SGIP, without the ability to have the deliverability study completed and qualify for Resource Adequacy benefits unnecessarily limits the ability of LSE’s customers to get the full value of the generation (particularly given the state’s RPS goals). In addition, there may be unexpected congestion and/or curtailment that arise from the lack of this study option. In the “other comments” section below, SCE’s Market Strategy & Resource Planning group adds further discussion on this point.

SCE will now address the questions requested by the CAISO in the template.

Proposed Independent Study Process

SCE supports expediting the study process for generation projects that are truly independent from other generation.

However, SCE is concerned that the addition of the ISP might create a situation where ICs may seek to apply simultaneously to the regular process and the independent process, which will likely lead to the same “overdraft” of engineering and planning resources required to perform the evaluations of qualifications for the ISP as perform interconnection studies. In other words, SCE is concerned that the planning and engineering resources needed to perform interconnection studies could be overly taxed from being asked to simultaneously perform independent study evaluations for projects that are just “testing the ISP waters”.

If the evaluation period for ISP applications could be planned for, it would better allow the PTOs to assemble the resources required to perform these evaluations, separate from the interconnection study process. SCE believes that adding a bit of structure to the ISP application process would address its concerns. To this end, SCE proposes the creation of regular schedule for ISP submission windows, which could be spaced regularly throughout the year (just not at the same time as the GIP submission window would be open), with a number of “open seasons” wherein ICs could submit ISP applications. SCE recommends placing two such “open seasons” in a given 12 month period, but could see the need for additional seasons. SCE proposes a 30-day open window period, during which time ISP applications could be submitted, followed by an evaluation period. Interconnection requests that do not meet the ISP criteria will be withdrawn and study deposits refunded (net of costs), allowing the IC to apply to the next available GIP cluster window. The schedule of open seasons would be set so as to not overlap with Phase I or Phase II interconnection studies. The number and exact placing of the ISP windows will have to be worked out between CAISO and stakeholders. The point of imposing this small amount of structure to the ISP application process would be to allow PTOs to plan resources to more effectively address the ISP applications, yet at the same time provide a number of “windows of opportunity” for ICs to submit ISP applications during a given year before the next GIP window opens.

SCE sees a side benefit from creating a separate ISP open season process, which is to eliminate the ability of ICs to submit the same application into GIP and ISP tracks simultaneously, when only one application is likely to move forward. This will avoid creating extra work for all parties and potentially save the ISP the cost of the second study deposit. Assuming that the IC first submits an application into the ISP open season, and if it does not meet the criteria, it can likely get a refund of its ISP study deposit (less costs incurred) in time to submit into the next available GIP cluster window.

1. Do you think that the proposed independent study process criteria are appropriate?
Yes, SCE believes all of the proposed criteria are appropriate; however, SCE views the second criterion (6.1(b) in the straw proposal as the most important of the seven criteria. This criterion is “make-or-break” for SCE. It is precisely the interdependencies with clustered projects (i.e., the “electrical interface” and “triggering of network upgrades”) that create the need to reform the SGIP. SCE believes stakeholders are very interested in the procedures used to evaluate IRs eligibility for the ISP. SCE recommends the CAISO add as much detail as possible regarding this evaluation, such as the parties responsible for making the determination, the documentation ICs must provide to demonstrate achievement of the various criteria, etc., into the next version of the reform proposal.
2. How should the proposed independent study process be specifically modified to incorporate desired features that are in the current SGIP serial process?

SCE has a provision in its existing WDAT SGIP for a pre-application exchange of information (Section 1.2), which is based on the original pro-forma tariff. The CAISO may consider including this provision in the TO SGIP. This pre-application exchange of information, combined with the posting of base case information as contained in the reformed LGIP (Appendix Y, Section 2.3), should provide generators and their consultants sufficient information to inform their application. SCE does not see the removal of the Feasibility Study (which is actually combined into the Phase I study) as an impediment to any exchange of early-stage information.

3. How can the independent study criteria be modified to allow PTOs to utilize this process if they do not have a backlog and waiting for the cluster window does not make sense?

No comment.

4. What pre-application information and guidance is needed to prequalify projects so that the process is not overwhelmed with applications?

SCE does not recall a “pre-qualification” step in the straw proposal, and does not agree that pre-qualification is either necessary or desired as part of the ISP.

As to exchange of pre-application information and guidance: SCE reiterates its belief that the inclusion of a pre-application exchange of information, and the base case posting requirements, as implemented under the reformed LGIP (Appendix Y, Section 2.3) provide ICs and their consultants with sufficient information to make informed judgments regarding the state of the ever-changing transmission system. SCE understands ICs wanting to locate “good places to hook up”. However, only interconnection studies can make that determination. In the absence of interconnection studies, any such exchange of pre-application information must be acknowledged as preliminary, non-binding, and subject to change.

5. How much “ISO and PTO judgment” should be allowed in qualifying projects and how should it be delineated?

SCE recommends the CAISO delineate the methodology by which an ISP application will be reviewed for eligibility for the ISP (see answer to #1 above). A certain amount of judgment will be inevitable in determining eligibility for the ISP.

6. What would be sufficient transparency into the ISO and PTO judgment process in qualifying projects and how would that be provided? See answers to #5 and #1 above. The entity responsible for determining eligibility for the ISP should provide a written response stating the reasons behind the determination of whether the IR is eligible or ineligible for the ISP.

7. If the proposed independent study process is included in the final proposal, is there still a need for the current LGIP Phase II accelerated study process? (CAISO Tariff Appendix Y Section 7.6)

No. The accelerated study process under Section 7.6 was not a useful feature of the reformed LGIP. The ISP obviates the need for the accelerated Phase II study.

SCE supports the CAISO’s proposal to include “public policy” projects into the ISP, i.e., those projects that apply to FERC for a waiver of any timelines in the LGIP to meet a schedule required by an order, ruling, or regulation of the

Governor of the State of California, the CPUC, or the CEC, similar to the criteria shown in Appendix Y Section 7.6 of the LGIP.

Proposed Study Deposit Amounts

Are the proposed study deposit amounts appropriate, if not please explain?

Yes, SCE believes that raising the study deposit amount for IRs between 2MW and 20MW is appropriate for energy only and full capacity deliverability requests.

Proposed Cluster Study Process

Do the proposed timelines for the cluster study process seem reasonable? Please add explanations for both yes or no responses?

Based on recent experience in performing cluster studies with a large number of constituents (75 TC Phase I studies and 35 TC Phase II studies), SCE believes the proposed timelines in the straw proposal are reasonable.

Coordinating generator interconnections with the transmission planning process

Do you support the concept of coordinating the proposed generator interconnection process with the transmission planning process, why or why not?

SCE supports the concept of coordination with the revised TPP, but remains concerned that the TPP might inject further delay and/or uncertainty into the LGIA negotiation process. SCE would like the CAISO to address the following questions in the stakeholder process and future proposal versions:

- 1) How much time will be required for the CAISO to make a determination and post a list of LGIP-driven network upgrades that are eligible for assessment in the TPP?
- 2) If, a network upgrade is not on the TPP review list outlined in #1, can it be included in an LGIA and have the LGIA executed without further delay?
- 3) If through the RTPP, the CAISO identifies any additional components or expansions of network upgrades that result in the need for other upgrades or additions (i.e. upsizing), would the LGIAs for the generators triggering the initial upgrades be amended to include these new upgrades?
- 4) Another way to ask #3, is who bears the financial responsibility for TPP-identified modifications to plans of service identified in an ICs LGIA, how will that incremental financial responsibility be allocated, and incorporated into revisions to LGIAs?
- 5) As outlined in the timeline of the Straw Proposal, LGIAs may wait approximately six months following the end of the negotiation period for the upgrades to be evaluated through the TPP. What if the TPP cannot come to a consensus on the need for a certain set of LGIA-driven upgrades (upsized or not), will there be a provision in the tariff that will allow for "closure" under these circumstances, so that the PTO, IC, and CAISO can execute the LGIA without TPP approval, so that the IC does not suffer for further uncertainty or delay in moving its project forward?

SCE is also concerned that the interaction with TPP injects the possibility of CAISO revisions of the plans of service developed in the interconnection studies. SCE proposes that TPP review be explicitly limited to “upsizing” projects, not “downsizing” projects, which might create the need to restudy a given plan of service that has already reached the LGIA stage.

Deliverability Assessments

1. What are your thoughts on the proposed alternatives for deliverability assessments?

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. The CAISO has put forth two options under which existing energy only (EO) generation could qualify for full capacity deliverability (FC) status – Option 1) entails a one-time or annual assessment of available transmission capacity, which would be parceled out to any generators who request FC status (once a generator received FC status, it would retain that status in a manner consistent with all other FC generation), Option 2) involves using the existing interconnection study process with CAISO performing a deliverability assessment (with a separate, yet to be determined, study fee schedule). The CAISO has rightfully pointed out that there are “free-rider” concerns with Option 1, but SCE can see free rider concerns with either approach. Free rider concerns are inherent due to the lumpy nature of transmission capacity.

The CAISO has stated that it supports Option 1 as the easiest to implement, the most integrated with TPP, and provides ratepayer protections. While Option 1 may be easy to implement from a CAISO perspective, it appears this simplicity comes at the cost of 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. This is especially troublesome given that the existing EO generators did not originally request FC status. SCE does not agree that Option 1 has no adverse impact on transmission ratepayers. Under the generator interconnection study process, limited deliverability capability is allocated to generators who; a) have requested FC service, and b) have been evaluated on a comparable basis under the study process. If existing EO generators are allocated deliverability, they in essence will be provided a “right” that they didn’t request and will necessarily reduce the amount of deliverability capability for another generator. In other words, this may not be the most efficient use of deliverability capability for that has already been paid for by transmission ratepayers. SCE is also not convinced that Option 1 is preferred, because after all the “available transmission capacity” is parceled out under Option 1, it stands to reason that if additional generators want FC, then they will trigger delivery network upgrades (which will require studies). Thus, SCE is mostly 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 more equitable approach for determining which generators get access to limited deliverability capability is to have the generators, if interested, make a request to change from EO to FC through a “deliverability study only” application to the interconnection process. Under this approach, which aligns with CAISO’s Option 2, 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. The interconnection study process already is the best (and only) method of determining “who triggers” and “who pays” for delivery network upgrades. SCE believes that the reason that most generators choose EO in the first place is to avoid financial responsibility for delivery network upgrades. Therefore, SCE believes that the CAISO should focus on the determination of “who pays”, rather than which parties get the RA benefits, especially since RA cannot be guaranteed from year to year. As the focus should be on “who triggers and who pays”, SCE believes that Option 2 provides the best solution.

2. What adjustments should be made to each alternative?

The fact that the generator moving from EO to FC is already operational leaves large questions in SCE’s mind about how delivery upgrades will be financed by the triggering generators. For one, will these delivery upgrades that are financed by operating generators be subject to refund? And, how will the upgrades be refunded, within five years of completion of the upgrades and achievement of full deliverability?

Proposed Transition Plan

Generally speaking, SCE is concerned about the lack of important details on the transition plan as outlined in the CAISO Straw Proposal. If the GIPR reform effort is any indication, transition issues should not be taken lightly. One of the primary challenges in reforming the LGIP process was the composition of the serial and transition groups, the assumption that serial group studies would be quickly completed (they weren’t for several reasons), and several other unintended consequences and lessons learned that come from tackling such a large process reform. SCE believes the lessons learned from the prior reform effort include: keeping the SGIP Serial Group as small as possible and the SGIP Transition Group as large as possible, so that SGIP Serial Group studies can be completed before the first cluster study is performed.

1. Do you think that the proposed transition plan is reasonable for LGIP projects?
Yes, with more than enough LGIP resources in queue, there is a low likelihood of complaints from generators planning on entering QC4 about having to wait 5-6 months until the new window opens.
2. Do you think that the proposed transition plan is reasonable for SGIP projects?
SCE agrees that the bulk of the current active SGIP requests over 2MW should be required to be clustered into the QC4 study process that is set per the timeline provided to start its Phase I study on July 1, 2011. However, SCE is concerned about the size of the SGIP Serial Group as proposed in the Straw Proposal using April 1, 2010 as the application date cutoff for inclusion in the Serial Group.

Based on the SCE's review of application dates, SCE has received over 90 active SGIP requests, inclusive of TO and WDAT requests but excluding requests under SCE's Rooftop Solar program, that have an application date prior to April 1, 2011.

SCE does not believe the CAISO intended for SCE's Serial Group to be so large, nor does SCE envision any ability to complete the interconnection studies on an expedited basis for such a large number of requests. Many of these requests are 20 MW projects, and many of them are proposed in regions of known transmission constraints. Due to interdependencies with the LGIP cluster studies, SCE will find it nearly impossible to provide timely and meaningful System Impact or Facilities Studies to such a large number of proposed Serial Group projects.

SCE recommends that the CAISO and stakeholders consider that only those SGIP requests that had executed an interconnection study agreement (for Feasibility, System Impact, or Facilities Study) by April 1, 2010 should be placed into the SGIP Serial Group. By drawing the "bright line" between Serial and Transition groups as those SGIP that have actually commenced interconnection studies, the CAISO will minimize stakeholder concerns about the equity of having the rules changed on the IC midstream, while simultaneously reducing the size of the Serial Group to a more manageable number of IRs.

Additionally, SCE suggests the CAISO place in future proposals and tariff language that the "SGIP Transition Cluster" (for lack of better term) will be slotted for study purposes after QC3 LGIP projects, but before any LGIP requests received in the QC4 cluster window.

3. Do you have any comments on the proposed dates for grandfathering projects in queue and migration of new projects and in queue projects into the proposed cluster process?
See response to item #2 above.

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

Request for clarification surrounding calculation of Phase I cost cap and interaction with Phase II studies:

SCE raises another area of ambiguity within the current LGIP that should be clarified within this current round of reforms, in addition to those items listed in the Straw Proposal under item 12 (such as the waiving of financial security if PTO upfront finances, which is now proposed by the CAISO to be subject of a future stakeholder process). This issue has to do with how the "Phase I cost cap" is calculated and implemented, and has immediate application to the Phase II study reports for the Transition Cluster.

Appendix Y, Section 6.5 of the CAISO Tariff currently states:

6.5 Phase I Interconnection Study Costs Form the Basis of Interconnection Financial Security.

The costs assigned to Interconnection Customers for Network Upgrades under this Section 6 of the LGIP shall establish the maximum value for the Interconnection Financial Security required from each Interconnection Customer under LGIP Section 9 for such Network Upgrades. In contrast, the costs assigned to Interconnection Customers for Participating TO's Interconnection Facilities under this Section 6 of the LGIP are estimates only that establish the basis for the initial Interconnection Financial Security required from each Interconnection Customer under LGIP Section 9.2.

SCE understands that Network Upgrades, as defined in the LGIP, include both Reliability and Delivery Network Upgrades. From SCE's reading of Section 6.5, and with no distinction being made between Reliability of Delivery Upgrades, one could interpret Section 6.5 to base the Network Upgrade portion of the "Phase I cost cap" on the sum of the Reliability and Deliverability upgrades identified for each IC in Phase I. However, in later Sections (Sections 7.3 and 7.4 of Appendix Y, which explain the financing responsibility for Phase II upgrades), it appears that the CAISO intended a distinction between Reliability and Delivery Upgrades as it relates to the cost cap. In other words, Section 7.3 and 7.4 imply that the "Phase I cost cap" applies separately to each of the Reliability and Delivery upgrades, not to the total of Reliability plus Delivery upgrades.

7.3 Financing of Reliability Network Upgrades.

The responsibility to finance final Reliability Network Upgrades identified in the Phase II Interconnection Study of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request up to the cost assignment for Reliability Network Upgrades under LGIP Section 6.3.1. The responsibility to finance final short circuit related Reliability Network Upgrades identified through a Group Study in the Phase II Interconnection Study shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of short circuit duty contribution of each Large Generating Facility up to the cost assignment for Reliability Network Upgrades under LGIP Section 6.3.1. The responsibility to finance all other final Reliability Network Upgrades identified through a Group Study in the Phase II Interconnection Study shall be assigned to all Interconnection Requests in that Group Study pro rata on the basis of the maximum megawatt electrical output of each proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request up to the cost assignment for Reliability Network Upgrades under LGIP Section 6.3.1.

7.4 Financing of Delivery Network Upgrades.

The responsibility to finance all Delivery Network Upgrades identified in the On-Peak Deliverability Assessment and Off-Peak Deliverability Assessment as part of Phase II Interconnection Study shall be assigned to all Interconnection Requests selecting Full Capacity Deliverability Status based on the flow impact of each such Large Generating

Facility on each Delivery Network Upgrade as determined by the Generation distribution factor methodology set forth in the On-Peak and Off-Peak Deliverability Assessment methodologies. The financing responsibility shall be up to, but no greater than, the cost assignment for Delivery Network Upgrades for each Interconnection Request under LGIP Sections 6.3.2.1 and 6.3.2.2.

If the CAISO's intention was to "match" the total Phase I cost of Reliability Upgrades with the Phase II cost of Reliability Upgrades (ignoring any Deliverability Upgrades) in determination of the cost cap (and vice-versa for the Delivery Upgrades), then SCE recommends amending Section 6.5 accordingly. However, if the CAISO intends that the Phase I cost cap applies to the Sum of Network Upgrades (R1 + D1) that should be compared to the Sum of Network Upgrades in Phase II (R2 + D2), then SCE recommends amending Sections 7.3 and 7.4 accordingly to remove this ambiguity.

Comments from SCE Market Strategy & Resource Planning group on Market Impact of large numbers of Energy Only VERs

Given that the CAISO interconnection procedures will now include both "Energy Only" and a "Fully Deliverable" options readily available to small and large generators, the CAISO needs to address the impact this may have on market performance, and potentially grid operations, in light of the anticipated increase of Variable Energy Resources (VERs) on the grid. We note that many VERs have very little RA capacity value (as compared to their nameplate) and as a result will not have an incentive to incur the additional costs to interconnect "Fully Deliverable". In turn, the CAISO should anticipate an increasing amount of EO resources as new VERs interconnect.

Because of the issues that may result from this interconnection process design, the CAISO requires rules and processes to deal with the operational and market impacts of having significant quantities of EO power that may not be deliverable. At a minimum, as part of this process the CAISO should discuss market rules that give Fully Deliverable resources priority over EO resources in situations where economic bids are insufficient to resolve congestion. That is, in the case where self-scheduled energy overloads transmission lines, the CAISO should curtail output from EO resources prior to curtailing Fully Deliverable resources.

SCE recognizes this issue is complex and that other solutions may exist. We encourage the CAISO to both discuss this proposal with stakeholders, and solicit alternative ideas. In the end, SCE believes the final interconnection procedures should include rules that address the problems created by undeliverable energy flowing from EO resources.