

Stakeholder Comments Template

Subject: Generation Interconnection Procedures Phase 2 (“GIP 2”)

Submitted by	Company	Date Submitted
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This template was created to help stakeholders structure their written comments on topics detailed in the February 24, 2011 *Issue Paper for Generation Interconnection Procedures 2 (GIP-2) Proposal* (at <http://www.caiso.com/2b21/2b21a4fe115e0.html>). We ask that you please submit your comments in MS Word to GIP2@caiso.com no later than the close of business on March 10, 2011. For the 21 topics listed below, we ask that you rank each with a score of 0, 1, 2, or 3 in the space indicated (a more detailed description of each topic is contained in the *Issue Paper* at the link, above).

- 3: For topics that are high priority and urgent.
- 2: For topics that are high priority but not urgent.
(i.e., topic could wait until a subsequent GIP stakeholder initiative).
- 1: For topics that have low priority.
- 0: For topics in which “the ISO need not bother.”

Stakeholders need not rank or comment on every topic but are encouraged to do so where they have an opinion. The ISO will assume that a stakeholder has “no opinion” on issues for which no rank is provided.

Your comments on any these issues are welcome and will assist the ISO in the development of a Straw Proposal. Your comments will be most useful if you provide the reasons and the business case for your preferred approaches to these topics.

Comments on Items listed in GIP 2 Issue Paper:

1. Develop procedures and tariff provisions for cost-benefit assessment of network upgrades.

Rank 0-3: 3

Comments: The cost-benefit analysis for the network upgrades is extremely important. Just by having a project included in one or more executed LGIA does not assure construction. SDG&E believes that in order to be able to facilitate the permitting of the high cost Delivery Network Upgrades (DNU) that are identified as part of the CAISO Deliverability Assessment there needs to be a cost-benefit analysis to allow selection of the NU projects which can be justified and permitted for construction. Before the PTO effects a reimbursement of the cost of these DNUs are to the developer at COD and included the transmission rate, these DNUs first must be evaluated from a cost/benefit point of view to demonstrate cost saving to the ratepayers. This demonstration is essential to the PTO acquiring CPUC approval to move forward with construction of the DNU project.

2. Clarify Interconnection Customer (IC) cost and credit requirements when GIP network upgrades are modified in the transmission planning process (per the new RTPP provisions)

Rank 0-3: 2

Comments: The cost and credit requirements for a project that is identified as a DNU -- however evaluated and redefined by RTPP -- should not be any different from projects only coming out of GIP. If the purpose of a network upgrade is for delivery of the newly interconnecting generation (not reliability), the funding should still be through the GIP to manage the risk of additional cost to ratepayers if a project drops out after having an executed LGIA/SGIA.

SDG&E suggest that the CAISO should eliminate the maximum cost exposure associated with the Phase I cost estimates. This issue stems from the fact that Phase I cost estimates must represent the IC's maximum cost exposure. This can introduce risk to PTOs if the Phase II studies show higher cost for upgrades due to combining two clusters together for Phase II studies.

Both ICs and PTOs recognize that the Phase I cost estimates are often not useful because they are unreasonably high because they represent costs for unrealistic upgrades that in many cases will never be built.

See comments at last bullet in Other Comments (below).

3. Provide additional transparency regarding Participating Transmission Owner (PTO) transmission cost estimation procedures and per-unit upgrade cost estimates;

Rank 0-3: 1

Comments: As long as Phase I cost estimates include land, ROW, environmental mitigations and permitting and amount to a “not to exceed” cost exposure for the developers, the cost estimates are going to be unreasonably high due to lack of detailed engineering and environmental information. For this reason there is not a lot of detail behind the unit costs for new transmission lines and new substations at this stage of the studies.

4. Clarify applicability of GIP for a generator connecting to a non-PTO that is inside the ISO Balancing Area Authority (BAA) and wants to have full capacity deliverability status.

Rank 0-3: 1

Comments: A generator connecting to a non-PTO should request a Deliverability Assessment from CAISO by injecting to the bus at the interchange point (or related branch group) unless it is using existing available interchange capacity.

5. Explore potential modifications to the triggers that establish the deadlines for IC financial security postings.

Rank 0-3: 3

Comments: The deadline for IC financial security postings for projects in the even-numbered clusters should be set before the start of Phase II, the next phase of the study, (*i.e.*, after Phase I is complete but before the Phase II study work begins.) Otherwise, the Phase II study cases are utilizing assumptions that are not supported by developer commitments from the even-numbered clusters to moving forward in Phase II with the project. So financial security for the even-numbered cluster projects should be posted after the Phase I study results meeting but no later than two weeks before the start of the Phase II studies.

To ensure there is no confusion, CAISO should provide to parties a summary of the IC's financial security amounts due, due dates, and details of calculations and cost allocations between PTOs for network upgrades at the Phase I and Phase II Results Meetings.

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

Rank 0-3: 3

Comments: SDG&E is not aware that there exists any confusion about the definition of the start of construction. The start of construction is when written authorization to proceed with construction is due pursuant to Articles 5.5.2 and 5.6.3 of the LGIA and when the third/final posting of IC financial security is due, pursuant to Articles 5.5.3, 5.6.4 and 11.5 of the LGIA and as should be outlined in LGIA Appendix A.

The relationship between E&P agreement security posting and third/final posting of IC financial security per the LGIA should be clarified in the GIP tariff. The GIA start of construction financial security posting = total GIA financial security posting requirement less any E&P agreement financial security postings.

7. Clarify ISO information provision to assist ICs.

Rank 0-3: 1

Comments: None.

8. Consider partial capacity as an interconnection deliverability status option.

Rank 0-3: 2

Comments: This question was asked repeatedly by SDG&E's interconnecting customers at the Phase I results meetings for both cluster 1 and cluster 2. The developers not remarkably need to know the cost of being partially deliverable.

For example, if a project study reflects the need for \$500MM Network Upgrades (resulting from building three different transmission projects) associated with it to be 100% deliverable, what is the level of deliverability at various incremental dollar amounts (what deliverability does a project get with \$100MM, \$200MM, etc. up to the \$500MM total)

9. Develop pro forma partial termination provisions to allow an IC to structure its generation project in a sequence of phases.

Rank 0-3: 2

Comments: Considering the fact that there is no provision for restudy/re-evaluation of a project, this might cause issues with the CASIO Queue involving adverse impacts on lower projects in the queue, and might result in the Queue providing to the market bad or incorrect information. Allowing an IC to terminate/abandon a large capacity phase of a project with large upgrades associated with it could cause unrealistic upgrades to be associated with projects lower in the Queue. If different phases of a project have a separate COD, and separate upgrades associated, CAISO should consider making phases of a project completely separate projects

10. Provide for partial repayment of IC funding of network upgrades upon completion and commercial operation of each phase of a phased project.

Rank 0-3: 2

Comments: SDG&E disagrees with this proposal. IF the IC wants partial reimbursement, then the the project should be broken into phases that corresponds with

the partial cost. This means a separate phase with a separate COD and separate network upgrades should be a separate project. Reimbursement for network upgrades should remain as defined in the LGIA, upon the project's COD. It would also cause complication and administrative burden in the tracking the partial repayments.

11. Applying Section 25 of the tariff to conversions of grandfathered generating units to compliance with ISO tariff.

Rank 0-3: 3

Comments: An existing resource's existing RA deliverability should be preserved provided the repowering provided that the "total capability and electrical characteristics of the resource (including the way the resource is interconnected with the grid) will be substantially unchanged." However, if there is a material change in the existing resource, because of a significant increase in maximum capacity, a change in generator technology, and/or a new connection with the existing grid, then the entire capacity of the repowered resource should be subject to the CAISO's standard interconnection request process deliverability assessment.

12. Clarify site exclusivity requirements for projects located on federal lands.

Rank 0-3: 2

Comments: SDG&E to provide comments, if any, during the working group discussions.

13. Specify appropriate security posting requirements where the PTO elects to upfront fund network upgrades.

Rank 0-3: 3

Comments: A PTO's decision to upfront fund network upgrades should affect the financial security posting amounts imposed on the IC.

14. Revise ISO insurance requirements (downward) in the pro forma Large Generation Interconnection Agreement (LGIA) to better reflect ISO's role in and potential impacts on the three-party LGIA.

Rank 0-3: 1

Comments: None. CAISO issue.

15. Clarify posting requirements for an IC that is already in operation and is applying only to increase its MW capacity.

Rank 0-3: 2

Comments: Financial security posting is intended to protect PTOs ratepayers for incurring cost towards a project that may fail to develop and become operational. If a project is already developed and is on line there is no risk to the PTO's ratepayers at this point and, thus, there is no need to post financial security.

16. Standardize the use of adjusted versus non-adjusted dollar amounts in LGIAs.

Rank 0-3: 2

Comments: All dollar amounts should be provided in "As-Year-Spent" dollars. Problem solved.

17. Clarify how GIP applies to storage facilities and behind-the-meter expansion of existing facilities.

Rank 0-3: 1

Comments: None..

18. 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.

Rank 0-3: 1

Comments: Power factor requirements ($\pm 0.95\%$) should not be waived and each project should be evaluated on its own merit and not as part of a cluster. Reactive power support and voltage control performance is necessary for each project since it cannot be assured what mix of generators will be on line at the real time operation. A project by pushing MW on the transmission system causes reactive losses, which results in voltage deviation (under light load condition the deviation is in form of increase in voltage) that must be mitigated by the generator(s) causing it. (It is more costly to mitigate these conditions by stand alone dynamic VAR control equipment or real-time ancillary service procurement).

19. Revisit tariff requirement for off-peak deliverability assessment.

Rank 0-3: 1

Comments: The purpose of the Deliverability Assessment is for meeting the Resource Adequacy requirement dictated by the CPUC. The Net Qualifying capacity Assumptions for DA studies should be in line with qualifying capacity factors assigned by CPUC to

various resources. CAISO DA study assumptions for NQC are far from corresponding to the QC assigned for RA. Since reliability assessment studies dispatches projects at full output to capture the reliability impacts there is no need for the DA to dispatch at such high levels.

20. Include operational impacts in assessing generation interconnection impacts.

Rank 0-3: 2

Comments: There should be a provision (both time and budget) for including operational studies at Phase II to prevent unforeseen affects on the system after projects are in commercial operation.

21. Revise provisions for transferring queue position to a new IC.

Rank 0-3: 1

Comments: The provision should take into consideration the stage of the project (Phase I, Phase II study, or LGIA/SGIA). Further, the tariff (GIP) should include a condition for a change in technology and elaborate on the material impact of the change. Current tariff language is so broad and applied so loosely by the CAISO as to invite abuse and game playing. See SDG&E comments at Other Comments #1, below.

Other Comments:

SDG&E recommends that scheduling two 3-hour workgroup meetings on the first day of work group meetings, Tuesday, March 15th be revised to maximize the productive use of all parties time and efforts. Specifically, providing stakeholders approximately ~7-days notice to reserve a six hour block of time on the first day is unrealistic. One of these meetings should be moved out to the next week.

Are the five workgroups and their topic areas organized properly?

Yes, however the timing of these workgroup activities should be revised along the same process described immediately above.

1. Are there other topics that you believe should be considered for the scope of GIP 2?
Yes.

The CAISO tariff should be more specific about material modifications. For instance, if a IC has executed an LGIA and thereafter changes the technology of the project or moves the project to a different, or significantly changes the project schedule, and change the ownership of the project, at what point should such changes be considered a material modification that would trigger the CAISO to treat such change(s) as a new project rather than a modification to the original project in the Queue?

2. If you have other comments, please provide them here.
- The deliverability study methodology needs to be revised.
 - Generation dispatch assumption in the DA is not realistic. CAISO dispatches nuclear plants at 80%, Combined Cycle plants' generating units at 50% or less while renewable projects are dispatched at around 100%. These assumptions would result in a potentially unreliable transmission system that is inadequate for renewable interconnections and transmission system operations and that will likely impose costly future operations on PTOs. Reasonable dispatch assumptions would allow identifying needed upgrades and reactive support that renewable projects should include in their design and would not shift the cost to PTOs.
 - As far as study time line is concerned, DA should be completed before the post cluster reliability studies can be done. At least 3 weeks should be allowed for the PTO to perform the reliability studies with the DA proposed projects modeled in the cases. This would also allow enough time for providing cost estimates for the DNU's.
 - SDG&E supports a modification of GIP to abandon the current method where two (2) Phase I studies feed into a single Phase II study. This currently causes a lengthy and unnecessary six-month delay for projects in the odd-numbered clusters, where after the Phase I study is completed they must wait to begin the Phase II study until the next, even-numbered cluster Phase I study is completed. Waiting to add the even-numbered cluster projects into a combined Phase II study can distort the validity of the upgrades (and costs) necessary for interconnection and deliverability from the Phase I study results, which are to represent a maximum cost exposure. The GIP timeline would be shortened for projects in the odd-numbered cluster by cutting out the six-month dead-period, waiting for the second Phase I study to be completed. At the completion of Phase I, projects in a cluster would move directly into the Phase II study. As mentioned above, combining two clusters together for Phase II studies can introduce risk to PTOs if the Phase II studies demonstrate higher costs for network upgrades.