

## Stakeholder Comments Template

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

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](mailto:GIP2@caiso.com) *no later than the close of business on*

Submitted by	Company	Date Submitted
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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 CAISO need not bother.”

Stakeholders need not rank or comment on every topic but are encouraged to do so where they have an opinion. The CAISO 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 CAISO 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: 1

Comments:

While the Clean Coalition sees the benefit of exploring a cost-benefit analysis of network upgrades, in order to ensure ratepayers optimally benefit, this issue is too complex and impactful to be analyzed properly in the tight timeframe the CAISO is envisioning for this process. (We note that the Straw proposal is to be posted April 14, 2010 and the Final proposal May 27, 2010).

In order to fully analyze this issue, a separate stakeholder process should be held with input from the developer community and detailed analysis of the relevant policies and practices of other ISOs and RTOs.

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:

Comments:

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

Rank 0-3: 3

Comments

In past CAISO proceedings and our own conversations with developers, we have repeatedly heard that the per-unit costs provided during the interconnection process are often far higher than the actual costs turn out to be. While we understand the desire by the IOUs to limit their financial exposure by providing an estimate that is essentially a very high, "not to exceed number", excessively conservative estimates can result in an estimate that is effectively useless to all parties involved and that may deter good projects from proceeding.

A key first step in understanding this issue would to be collect project by project data (redacted if necessary) showing per-unit cost estimates at Phase 1, Phase 2 and actual

final costs, into a single spreadsheet broken down by year. Providing this information will allow all parties to have a better understanding of the issues and potential solutions.

Additionally, as per SDG&E's comments during the GIP 2 call, it would be useful to separate the comparable costs (e.g. a substation cost) from the potentially non-comparable costs (e.g. land and right of way). Again, providing this information will allow all parties to have a better understanding of the issues and potential solutions before submitting interconnection applications.

Ultimately, the best solution may be to provide two numbers in the Phase I study and in per unit cost guides:

- "Best Guess" estimate that will help the developer to make an informed decision and
- A more conservative, "Not To Exceed" number that provides protection for the IOU

Additionally, consideration should be given to soliciting insurance coverage to protect parties from the risk of higher than estimated costs, allowing developers to proceed with a fixed known cost.

Once the IOUs determine these two numbers, they should provide a report to the developer that explains the numbers and analyzes the differences between the two. Additionally, after the interconnection is completed, the two numbers should be made public and compared to the actual final figure in order to track the accuracy of the "Best Guess" and "Not To Exceed" estimates.

Additionally, all study results should be posted to provide more information to all parties involved in the interconnection process. As we have noted multiple times in earlier comments, Pacificorp provides links to actual System Impact Studies and Facilities Studies in their publicly-available interconnection queue:

<http://www.oasis.pacificorp.com/oasis/ppw/lqia/pacificorplqiaq.htm>

While this information is available on CAISO's secure website it should be made available on the public website also, as with Pacificorp. This is the case because we have found the CAISO process for gaining access to the secure website extremely burdensome – the Clean Coalition, as a non-profit advocacy group, was denied access to the secure website even though it clearly fits one of the categories for access: e) a not-for-profit organization representing consumer regulatory or environmental interests before Local Regulatory Authorities or federal regulatory agencies.

The Clean Coalition does not support CAISO's suggestion on p. 11 of the GIP 2 memo to add the word "secure" to its tariff in order to clarify that this information should be available only on the secure website. Pacificorp and many other utilities publish this information to the public OASIS websites and we see no reason why CAISO cannot do the same.

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

Rank 0-3: 2

Comments:

As more projects in LA DWP, SMUD, IID, etc., territories seek deliverability status this issue will rise in prominence.

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

Rank 0-3:

Comments:

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

Rank 0-3: 3

Clarifying these deadlines is a very important issue for developers.

Comments:

7. *Clarify CAISO information provision to assist ICs.*

Rank 0-3: 3

Comments:

The Clean Coalition is a strong advocate of increased grid transparency and queue transparency. As we commented in prior filings with the CAISO and the FERC, increasing the interconnection information made available to the developer community ("Grid Transparency") benefits all parties since a more informed developer community will present the CAISO with higher quality interconnection requests, resulting in less dropped projects and, therefore, less analysis time wasted by CAISO and the IOUs. This is particularly important now that the SGIP has been collapsed and the time penalty of dropping a project and entering a later cluster has become more severe.

We also feel that more information should be provided on the current queue ("Queue Transparency"). FERC agreed with us in their 2010 order conditionally accepting CAISO's proposal, stating (p. 23): "As discussed below, because we share [the Clean Coalition's] interest in seeing how the Fast Track and ISP mechanisms develop as they are integrated into the new GIP, we will require CAISO to incorporate an informational update on these two processes as a part of CAISO's existing LGIP quarterly reports." And (pp. 31-32):

We share [the Clean Coalition's] interest in seeing how the ISP mechanism develops as it is integrated into the new GIP. Thus, while we decline to require CAISO to compile and make available the extensive data [the Clean Coalition] suggests above, we will require CAISO to incorporate an informational update on the ISP mechanism as a part of its existing LGIP quarterly reports. In particular, CAISO should include information about the number of projects requesting interconnection through the ISP, the outcome of those requests, the complete length of time for recently completed ISP interconnection studies (from initial application through final approval), and the reason for any rejections of projects requesting ISP treatment. This information will improve the transparency of the ISP, which is in the best interest of all market participants.

And (p. 37):

With respect to [the Clean Coalition's] request for data, we find it appropriate to monitor the use of the Fast Track modifications proposed herein. Thus, we will require CAISO to provide informational updates relating to the use of this process in its LGIP quarterly reports on the progress in processing interconnection requests to the Commission. CAISO should include in its reports the size and type of generator interconnection requested under the Fast Track process, the proposed location of the generator, the number of requests that did not pass the screens, and which screens the generator developer failed.

FERC added (p. 32) for emphasis that it "will hold CAISO to its commitment to continue working with its customers to address these concerns."

No mention of these informational requirements have been yet made by CAISO in its filings to FERC in January or in this GIP 2 proceeding. This is an oversight that must be remedied.

We believe the following additional information should be made available to the developer community and kept up to date on a monthly basis:

- Base case data
- System Impact and Facilities Studies, with information redacted where necessary. (As mentioned above, there is precedent for this in the information provided by PacifiCorp.)
- A Google Maps and Google Earth-based interconnection map of CAISO-jurisdictional lines with detailed information on substations, circuits, loads (peak, minimum), available transmission capacity and information on projects already in queue.

While all the PTOs have been improving their maps, we believe that PG&E's most recent proposal provides a very good standard for CAISO to emulate:

[http://www.pge.com/includes/docs/ppt/b2b/wholesaleelectricssuppliersolicitation/PV/2011\\_PV\\_PPA\\_RFO\\_Morning%20Session\\_FINAL.ppt](http://www.pge.com/includes/docs/ppt/b2b/wholesaleelectricssuppliersolicitation/PV/2011_PV_PPA_RFO_Morning%20Session_FINAL.ppt)

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

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

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:

Comments:

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

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

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

Rank 0-3: 2

Comments:

Storage is increasingly becoming an option as technologies improve and costs come down. KEMA recently completed a study for the Energy Commission finding that 1,000 MW of storage could perform the same job as 4,000 MW of natural gas simple cycle peaker plants in terms of balancing renewables. The CPUC also just convened a proceeding to implement SB 2514, a law passed in 2010 that requires the CPUC to consider the role of energy storage as renewables reach higher penetration levels.

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 CAISO's proposed new interconnection standards.*

Rank 0-3: 2

Comments:

The Clean Coalition supports any initiative that will streamline interconnection procedures. If having a single standard for small and large generators will streamline interconnection we are supportive. However, where conforming but simplified standards

may be sufficient for small generators, this option should be considered in order to avoid unduly burdening such projects.

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

Rank 0-3:

Comments:

20. *Include operational impacts in assessing generation interconnection impacts.*

Rank 0-3:

Comments:

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

Rank 0-3:

Comments:

#### **Other Comments:**

1. *Are the five workgroups and their topic areas organized properly?*
2. *Are there other topics that you believe should be considered for the scope of GIP 2?*

The Clean Coalition believes that there are several topics that remain unanswered from the prior SGIP reform process and have not been addressed in this document. Several of these topics were specifically cited in the FERC 's conditional acceptance of the GIP

#### ***Cluster Study Improvements***

FERC focused on this issue specifically in its 2010 order:

We encourage CAISO to continue to work with stakeholders to create solutions that will allow generators to proceed through the cluster study process as quickly as possible. While we find that the current GIP proposal adequately balances the interests of small generators with the need to reform the flawed SGIP serial process, the Joint Solar Parties' suggestions of adding an additional cluster window or shortening the cluster study process for small generators merits further consideration as CAISO works with market participants to consider possible future enhancements to the GIP process.

Given this clear guidance from FERC, we are unsure why GIP 2 contains no proposals for shortening the GIP clustery study process, including adding an additional cluster window or shortening the cluster study process for small generators only. As we have mentioned in previous filings, we believe that an independent process audit of the CAISO and IOU systems and staffing would be a key first step in enhancing the GIP process. We encourage CAISO to research this concept as part of the GIP 2 reform.

### ***ISP Improvements***

FERC's order conditionally approving CAISO's proposal in 2010 stated that CAISO should develop objective criteria for ISP eligibility under the electrical independence test (p. 30): "In order to ensure that the process for determining eligibility for the ISP is transparent and non-discriminatory, it is appropriate for CAISO to establish basic objective criteria."

Accordingly, it seems necessary for CAISO to include this issue in GIP 2 to ensure that ISP is a viable option for projects to avoid the very lengthy cluster study process. We appreciate CAISO's recent statements that it will drop any requirements other than electrical independence for ISP, but there is still a substantial need to better understand how electrical independence is to be determined.

### ***Fast Track Improvements***

FERC also provided the following commentary on Fast Track screens (p. 36):

CAISO's proposed modifications to its Fast Track process, which were vetted via a stakeholder process, illuminate the reality that the thresholds approved in Order No. 2006 may have been more restrictive than necessary when applied to the CAISO grid. This is evidenced by the fact that no small generators have utilized or benefited from this process since its inception. Thus, we find it appropriate to consider a different approach prospectively, provided reliability and grid safety are adequately maintained.

Given this clear guidance from FERC, we are also unsure why GIP 2 has no proposals regarding different approaches to the Fast Track thresholds. Specifically, we ask that the GIP 2 devote time to assessing Fast Track Screen 2, which restricts interconnections to 15% of the line section peak load. We believe that this screen as it currently stands does not take into consideration the peak load attributes of Solar PV generation, or other peak resources, and that it is possible that this screen could be raised substantially without impacting grid reliability and safety.

As one potential model for change, we note that SMUD comments in the CPUC's March 4, 2011, ReDEC (Renewable Distributed Energy Collaborative) meeting revealed that it is interconnecting some Solar PV at levels up to 100% of minimum load on parts of its Distribution grid. This 100% minimum load threshold potentially implies a 30% threshold relative to peak

load, indicating room for potential improvement in Screen 2. SMUD's interconnection procedures for these projects required a supplemental study, so they are not strictly Fast Track. However, SMUD's experience may nevertheless inform CAISO and PTO interconnection procedures by demonstrating the viability of a higher Screen 2 threshold.

Interestingly, the 30% threshold discussed above also dovetails with the modified Rule 21 30% threshold that was analyzed by Black & Veatch and E3 in the CPUC's Long Term Procurement Planning (LTPP) proceeding, in consultation with PTO engineers. While that analysis was by no means comprehensive, it did have input from the PTOs and this higher threshold merits further study at this time.

Alternatively, the 2<sup>nd</sup> screen could be modified to use daytime peak loads only for solar, which would achieve generally the same outcome as increasing the limit from 15% to 30%. IREC, for example, has proposed to the CPUC and PTOs in their WDAT reform process that Screen 2 be modified to allow 50% of minimum load between 10 AM and 3 PM.

### ***For Fee Feasibility Study***

Finally, we expected GIP 2 to discuss a "For Fee Feasibility Study," which was discussed during the prior SGIP reform but was tabled by CAISO, with assurances that it would be revisited for future discussion in the next proceeding. We request that CAISO follow through on this previous assurance in this proceeding.

- 3. If you have other comments, please provide them here.*