

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.

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

PG&E generally supports the CAISO's proposal, with modifications

suggested further in these comments. The CAISO's proposal accomplishes the following objectives, some of which are above and beyond those that it originally set out to meet:

- Allows for all sizes of project to be studied for deliverability and therefore qualify for resource adequacy.
- Preserves, to the extent possible the shorter timelines of the current SGIP.
- Eliminates/prevents delays that would occur as a result of a multitude of interconnection requests.
- Shortens the timeline for processing large generator interconnections
- Provides the right incentives for projects to submit under the appropriate projects under the appropriate process; conversely reduces unintended incentives for inefficient sizing or location of projects (e.g. to split up into multiple projects, undersize or oversize, apply to connect to distribution, or at multiple close-by substations).

- Creates an ISP, under which ***qualifying*** projects can be studied in a quicker, serial fashion, and still get deliverability, which follows the original intent of the FERC's small generator interconnection procedures.

PG&E has certain issues of concern which it outlines here and elaborates further in these comments.

- PG&E has certain concerns with allowing projects to enter the process through the proposed second open window
- PG&E has certain concerns with the implications with respect to timing and ability to meet customer expectations of the proposed changes to the Fast Track process which would eliminate the tenth screen.
- PG&E also has suggested changes to the CAISO's proposal which it believes will enhance the proposal and are in line with its intent.
- There are two areas related to the transition plan that require clarification.

Proposed Study Deposit Amounts and/or Processing Fees

1. *In general, do you support the proposed study deposit amounts and/or processing fees?*

PG&E supports the proposed study deposit amounts. The amounts provide an incentive for projects to provide the CAISO and PTOs with realistic information regarding the proposed size of their project, eliminating the potential incentives to act otherwise that exist under the old/current process. However, in order for the logic of the proposed study deposits to have an impact, the same principles should be applied to the security posting requirements, which PG&E will elaborate on later in these comments.

2. *If not, what modifications are needed and why?* N/A

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?*

Yes, PG&E supports this change, and views it as the only way for the CAISO and PTOs to provide timely, accurate study results under the current landscape of a multitude of interconnection requests. However, PG&E recommends that additional time be allocated to the Line 7 of the Phase I study timeline. The proposed study timeline only allows 15 calendar days (approximately 2 weeks) for the PTOs to complete the load flow and dynamic analyses. PG&E recommends that Line 7 should be increased to 30 calendar days. While PG&E appreciates the CAISO's efforts to condense the study timelines, sufficient time should be allowed for the PTOs to provide acceptable study results.

2. *If not, what modifications are needed and why?* N/A
3. *If you do not support a single cluster approach in any form, what would be your preferred alternative and why?* N/A

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?*

PG&E can support opening a second window for the purpose of holding a scoping meeting or to provide applicants with more information prior to the beginning of annual cluster studies. If stakeholders desire this meeting then PG&E is happy to accommodate. However, PG&E has serious concerns about a second application window that allows projects to enter the cluster at Phase II, which PG&E will elaborate on below.

2. *If not, what modifications are needed and why?* N/A

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?*

As proposed, PG&E opposes a second open application window under which a project can enter the cluster at Phase II on multiple grounds:

- Such a proposal provides incentives to size projects at the 20MW level, rather than right sizing. Because the CAISO has proposed a cut-off of 20MW, this provides an incentive for applicants to propose 20 MW projects, even if a larger project would be the most efficient. Worse, it could provide incentives for projects to attempt to split up large projects in to smaller 20 MW increments at slightly different by electrically close interconnection points in order to qualify under this provision.
- Provides incentives for under 20MW projects to wait. Because the provision requires that generators prove that their online date cannot be satisfied by the full cluster process, this encourages project proponents to wait until the last possible moment to request interconnection, and/or to suggest unreasonably early commercial operation dates. The procedures should encourage generators to get into the interconnection process as soon as they are ready and to propose commercial operation dates that are feasible. This proposal provides an incentive to wait to apply well beyond the time that the interconnection customer is ready in order to get in under this shorter process.
- Provides incentives for 20MW projects to come in as energy only rather than be fully deliverable. By making this proposal open only to energy only applications, it provides an incentive to generators that would otherwise be able to qualify for resource adequacy not to do so. This runs counter to the LSEs' contracting requirements and in general leaves capacity value on the table. If projects are to come in as energy only, there needs to be a way for them to be studied for and become deliverable at some later date. Therefore, PG&E's willingness to support a provision such as this hinges on whether or not the CAISO will include the Deliverability Assessment Option 2 in its final proposal.
- Promotes risky behavior: Because there is a cap on network upgrade costs, this process could lead to generators dropping out of the process

much later in the process than they would have if they had gone through the Phase I study. Coupled with the incentive to propose unrealistic online dates, as well as creating trouble with getting a PPA in the contracting world, only very speculative projects would likely interconnect under such a process, and the likelihood of their failure or withdrawal much later in the process is much higher. As such, PG&E can only support inclusion of this provision if there is a way for the plan of service to be adjusted to acknowledge a large number of withdrawals from the process after the Phase II studies have been completed AND if the security posting requirements are sufficient enough (and the opportunity for refund limited enough) so that entering the process at Phase II requires real incentive to think twice before applying through this window.

- Could invalidate Phase I or Even Phase II studies –The process was designed so that interconnection customers could make reasoned decisions earlier in the process, either before applying or after the Phase I studies were complete. While the opportunity to withdraw was always present after Phase II, the study process, which caps the exposure at Phase I and was more than likely (although not necessarily) to result in a smaller cap for Phase II due to withdrawals after the Phase I study, does not currently make sense if a large number of projects drop out post Phase II. After Phase II, there is little opportunity to adjust the plan of service should many projects drop out. This could be a less than efficient result and potentially bloated plans of service for generator interconnection.

2. *If not, what modifications are needed and why?*

If small generators are allowed to enter the process at Phase II, then the following provisions are necessary:

- **Projects that enter under this process should be 100% responsible for any incremental transmission upgrade triggered within their geographic cluster that is different from the result of the Phase I study.** That is, in order to be fair to generators that entered in under the standard process, to the extent that certain upgrades would have been adjusted downward due to withdrawals after Phase I, those staying in the cluster post-Phase I should be eligible for a lower cost responsibility.
- **The first security posting (due upon entry to the queue cluster) should be \$40,000 per MW and in no event less than \$100,000.** Recall that there is no network upgrade assigned to the interconnection customer at this point, therefore the 30% (to honor the CAISO's proposed 2 x first posting = 2 x 15%) calculation cannot be made. Therefore the only measure that can be used is the \$20,000/MW charge as the basis for calculation. That \$20,000/MW would be doubled to \$40,000/MW, by the terms of the proposal.
- Although some stakeholders have identified a fairness issue, it is too important to have options for energy only to become deliverable in the future. Therefore, PG&E does not support an "energy only forever"

requirement. Further, because this process will provide a huge incentive (in shortened study time) for generators to enter as energy only, **PG&E can only support this proposal if Deliverability Option 2 is part of the proposal.** That said, allowing energy only projects under this process to become deliverable in the future provides even more incentive to wait and enter through this process. Therefore, generators should not be able to request to change energy only to fully deliverable until in-service and operating (perhaps for 1 year).

- As stated above, because this process has the likelihood of multiple projects that enter under this second window to drop out due to the sticker-shock of upgrades identified on their behalf, **there needs to be an opportunity to adjust the plan of service to avoid certain uneconomic projects that would be triggered by projects that dropped out post Phase II.**

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?*

PG&E generally supports the criteria as the only way that such a proposal could be implemented without wreaking havoc on the process. However, as stated above, even with the mitigating criteria proposed, PG&E sees some serious flaws with the proposal.

2. *If not, what modifications are needed and why?*

As stated above, PG&E can only support this proposal if:

- Projects that enter under this process should be 100% responsible for any incremental transmission upgrade triggered within their geographic cluster that is different from the results of the Phase I study;
- The first security posting (due upon entry to the queue cluster) should be \$40,000 per MW and in no event less than \$100,000;
- There is no “energy only forever provision”
- Deliverability Option 2 is part of the proposal, with the caveat that generators applying under this process should be online and operational before being allowed to re-apply for deliverability.
- There may be a need to revise the plan of service if/when generators entering under Phase II drop out post Phase II.

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?*

PG&E continues to support the proposal that was outlined in the RTPP. While it is fine to ask for comments on this particular matter, the issue should be taken up in ER10-1401-000 if there are concerns.

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?

4. *General Comments*

- The criteria for the potential TPP network upgrades in Section 4.2.4 on page 22 does not match Line 23.1 on page 20. Please correct Line 23.1.
- For those projects that are selected for evaluation by the TPP, PG&E requests clarification regarding the detailed cost estimates that the PTOs are required to provide for the Phase II reports. The CAISO and PTOs will identify network upgrades based on the Phase II study results before projects are selected for evaluation under the TPP. The proposal does not clarify what PTO cost estimates should be provided for these selected projects. Specifically, what scope of work should the cost estimates be based upon?

Independent Study Processing Track

1. *In general, do you support the ISO's Independent Study Processing Track proposal?*

PG&E supports the independent study process as proposed.

2. *What modifications are needed and why?*

The proposal for the ISP should have similar language as the current SGIP that allows for "reasonable efforts to meet all time frames." This is from Section 4.1 in the CAISO Tariff Appendix S (SGIP):

4.1 Reasonable Efforts

The CAISO shall make reasonable efforts to meet all time frames provided in these procedures unless the CAISO and the Interconnection Customer agree to a different schedule. If the CAISO cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

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? N/A*

Fast Track less than 2 MW

1. *Should the ISO remove the 10th screen from the Fast Track? Why or why not?*

Even in the simplest of interconnections the need for new transmission facilities could make it difficult to accelerate the overall schedule. Therefore, **Section 2.2.10 of the SGIP that states "No construction of facilities by the PTO on its own system shall be required" should not be eliminated or modified.**

Parties have discussed the possibility of codifying a “modified fast track”. This option should be explored. However, should any facilities be needed, the process will take more time and as such could resemble an ISP process. Depending on the impacts if the 10th screen fails, the project could even trigger entry into the new clustered generator interconnection process. With these proper caveats, PG&E could consider supporting removing the 10th screen.

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.*

PG&E can support changing the standard to 5MW, as this change merely opens up the process to consider more projects through the screens. However, PG&E cautions that projects of this size are just as unlikely, if not more unlikely to pass the screens.

Method to Determine Generator Independence

1. *In general, do you support the ISO’s proposed method to determine generator independence?*

PG&E strongly supports the CAISO’s proposed method to determine generator independence, and believes that the ISP could be unworkable without such a screen in place.

Regarding Section 4.3.3.2, PG&E requests clarification on “the substation(s) identified in (a)...” There is no “(a)” mentioned under in this section. In addition, PG&E recommends allowing the PTOs to also identify other substations (in addition to those identified for the flow impact test) that may be impacted from a short circuit standpoint.

2. *If not, what approach would you propose for determining generator independence? Explain why your proposed approach is superior to the ISO’s proposal.* N/A

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?* N/A

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?*

PG&E does not support a one-time only option. PG&E continues to strongly support and advocate deliverability option #2. It is important that generators that are interconnected to the grid be able to contribute toward resource adequacy to the extent possible. It is generally more efficient to be able to count existing generation toward the resource adequacy requirement than to require new entry to satisfy the requirement. Therefore, the CAISO process should allow for

existing generation to be studied for and become deliverable, just as it would allow a new entrant to be studied and become deliverable. In order to have a level playing field, those existing generators requesting deliverability should have to provide the same initial study deposits as well as security postings under Option 2. In addition to the LSE procurement process, provision of carrying costs associated with security should provide incentives for generators to minimize customer costs associated with transmission needed to make the generator deliverable. Option 2 provides the opportunity for existing energy-only generation to be studied for and become deliverable if and when it makes the most sense for that generation to do so. Options 1 and 3 take an extreme approach to assigning deliverability to generation, where deliverability can only be assigned to energy only generators if it is “free”. This is an over-reaction to the concern that transmission identified to make this generation deliverable might not be economic. Even accepting the premise that studies could identify transmission projects which costs outweighed the RA benefit of the generation requesting to be deliverable, certainly that threshold is higher than zero cost. FERC has previously rejected the notion of an economic test for generator-interconnection related delivery network upgrades. Existing generators requesting deliverability should be treated on par with respect to opportunity to request as well as requirements to pay for studies and provide for security postings and up-front funding with a 5-year payback.

- Issues with Option 3:
 - The one-time only option to be studied for and become fully deliverable may not match up with the timing needs of the generators nor the LSEs.
 - The proposed methodology for assigning available capacity when multiple projects request for a limited amount of capacity is workable but may not be altogether fair or appropriate.
 - Further, partial deliverability, as proposed by the CAISO is confusing, and could change from year to year. This is not an efficient way of counting or marketing RA, especially with longer horizon RA requirements.
 - From an RPS of even an RA counting perspective, there are some timing and cost situations for which it may make more economic sense for a generator to come online first as energy only and become deliverable later. The CAISO tariff should not prohibit these cases from providing value to the market.
2. *If not, what modifications would you support and why?*
- If option 3 is eventually chosen, then a more robust process for allowing energy only generators to become deliverable should put in place. This annual test should identify upgrades needed to make energy only generators that request it to be deliverable, and then should determine what the economic cost would be to allowing those generators to count toward RA, as well as taking into account any other benefits to the grid. The CAISO’s current proposal of only identifying deliverability if the transmission is “free” does not meet the CAISO’s stated intent for placing such a restriction on the process.

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?*

See comments above.

2. *If not, what modifications would you support and why?* See comments above.

Financial Security Postings

1. *In general, do you support the ISO's financial security postings proposal?*

This part of the procedures, much more than the initial study deposit requirements, will provide strange incentives for project sizing and other considerations. Therefore, PG&E does not support the financial security posting proposal. Because the security posing requirements could have such an impact on generator sizing and application decisions, it is important for the CAISO to tackle this issue now rather than wait for another round of interconnection process reforms. PG&E has specific suggestions below that follow the logic of the graduated study deposit requirements.

2. *What modifications are needed and why?*

- Security posting upper and lower bounds should be graduated on a per MW basis similar to the study deposit proposal.
- Using the current numbers as proposed by the CAISO PG&E suggests:
 - Lower bound formula (Phases 1 and 2): \$10,000 + \$2,500/ MW capacity, up to \$500,000.

MW Size	Minimum security posting
2	10,000
10	30,000
20	55,000
50	130,000
100	255,000
150	380,000
200	505,000

- Phase 1 Upper bound formula: \$500,000 plus \$35,000 per MW up to \$7.5 million

MW Size	Maximum security posting
2	\$ 570,000
10	\$ 850,000
20	\$ 1,200,000
50	\$ 2,250,000
100	\$ 4,000,000
150	\$ 5,750,000
200	\$ 7,500,000

- Phase 2 Upper bound formula: \$5,000,000 plus \$100,000 per MW up to \$25,000,000

MW Size	Maximum security posting
2	\$ 5,200,000
10	\$ 6,000,000
20	\$ 7,000,000
50	\$ 10,000,000
100	\$ 15,000,000
150	\$ 20,000,000
200	\$ 25,000,000

Transition Plan

- In general do you support the ISO's proposed transition plan?*
- What modifications are needed to all you to support the ISO's transition plan?*

Clarification is needed on the transition plan:

- Need clarification regarding how the Serial Transition Cluster will be coordinated with the Cluster 1 and Cluster 2 Phase II study. The proposal does not specify if this means that they will be studied together in one large cluster or as separate clusters studied during the same time period.
- If a SGIP decides to move into Cluster 4, does it maintain its existing Queue position?

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?

- Page 6: The first paragraph describes the current SGIP study process. Step 4 does not specify who conducts the facilities study. PG&E believes this should read "... (4) ISO or participating transmission owner conducts the facilities study..."
- Page 17: PG&E requests clarification on the definition of "Interconnection Grid Substation (IGS)" under Line 3 of the Phase I timeline. This is not provided in the proposal.
- Page 42, Section 5.3: There is a typo in the following sentence. "...the interconnection customer must sign and execute an interconnection agreement within 90 days of receiving the final report and post ~~and~~ any required financial security as described in Section 4.6..."