

## 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 April 14, 2011 *Straw Proposal 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 May 5, 2011.

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

Your input will be particularly valuable to the extent you can provide greater definition and clarity to each of the proposals as well as concerns you may have with implementation or effectiveness.

**Comments on topics listed in GIP 2 Straw Proposal:****Work Group 1**

1. Develop procedures and tariff provisions for cost assessment provisions.

Comments:

PG&E recommends that the CAISO drop the term “economic test” from its proposal, and rename it in line with its most impactful attribute; i.e. the change in Network Upgrade Cost Responsibility.

The CAISO’s stated objectives related to the change to Network Upgrade Cost Responsibility are to:

- a) Coordinate the Transmission Planning Process (TPP) with the Generator Interconnection Procedures (GIP)
- b) Rely more on the TPP and less on the GIP as the venue to identify and approve new rate-based transmission.
- c) Ensure that approved transmission is highly utilized under a number of alternative, feasible patterns of future resource development.

While these high-level objectives might make sense, PG&E is unable to take a position on the specifics of CAISO’s proposal at this time as there are too many unanswered implementation questions that need to be addressed. However, PG&E does offer the following comments, which are focused on practical factors that the CAISO may be overlooking:

*In order to capture the benefits of coordination between the two processes, coordination between TPP and GIP should work to make the cost responsibility determination shorter rather than longer.*

The CAISO’s proposal to coordinate the GIP and the TPP does little more than add time to the existing process for determining cost responsibility for generators and transmission owners. In order to capture the benefits of coordination between the two processes, such coordination should work to make the cost responsibility determination shorter rather than longer. This could be accomplished in a number of ways. The CAISO’s proposal states that it will rely on the GIP as an input to the TPP rather than the other way around. However, from the straw proposal and the discussion at the April 28 stakeholder meeting, it appears that the CAISO will rely more heavily on the 33% renewable portfolios developed through and in coordination with the CPUC. Instead of actively taking into account the GIP studies, it appears the CAISO will use the independent results of the TPP as a way to determine the cost responsibility or the upgrades identified in the GIP studies.

If the CAISO is to pursue this proposal further, it should consider whether a full two phases of GIP studies are necessary before performing a comparison to the TPP.

*The TPP needs to provide enough certainty far enough in advance so that sufficient generation can secure signed power purchase agreements and financing*

The CAISO’s proposal goes much further than simply identifying more projects in the TPP than in the GIP. It seems the CAISO’s proposal will instead simply change the cost

responsibility for most of the GIP-related upgrades. From a theoretical perspective this might make sense. However from a practical perspective, PG&E is concerned that the TPP will fall short of approving enough transmission to accommodate the generators needed to meet the 33% goal by 2020. The TPP needs to provide enough certainty far enough in advance so that sufficient generation can secure signed power purchase agreements and financing.

*Major annual milestones in each cycle need to be properly aligned to aid in the commercial and procurement decision making process.*

Before such a major change in cost responsibility is implemented, the CAISO must consider the various commercial and procurement decision points associated with the development, permitting, and financing cycles, as well as the solicitation, negotiation and procurement cycles. If the coordinated GIP/TPP does not provide adequate clarity at key points in the development and procurement cycles, then the current situation of adequate supply in the market to meet the RPS requirement might disappear.

In other words, the CAISO's proposal might work too well to clear up the queue and hamper the development of resources needed to meet the 33% RPS goals in the most cost effective manner.

*If the TPP fails to identify enough transmission options to meet a number of renewable resource build-out scenarios, then the average price for renewable energy might be higher than it would have been otherwise*

PG&E believes that the majority of the cost to meet the 33% RPS target will be driven by the cost of generation, not transmission. If by erring on the side of more transmission, the average price of the renewable energy can be lowered by even a few percentage points through increased competition, then adding that additional transmission capacity will have been well worth the cost. PG&E urges the CAISO to consider the increased cost-effectiveness on the generation side when it evaluates the benefits of additional transmission upgrades.

The concept above (i.e. advancing transmission to increase competition), has not been exhibited by the CAISO in the 2010/2011 Comprehensive Plan, and does not appear to be incorporated into the assumptions for the 2011/2012 transmission plan. This leads PG&E to believe that generators in the most recent queue cluster are likely to be responsible for the bulk, if not all, of their own network upgrade costs. Under such a scenario, it is unlikely that such generation will be able to compete with generation that is grandfathered through previous queues.

*Determining the timeline for when the new cost responsibility proposal will be applied has huge implications for the all-in cost of generation for generators who are not identified in the TPP and are not grandfathered*

For which queue clusters will the new cost responsibility proposal be applied? Since the CAISO's new proposal will be approved by FERC at the end of 2011 at the earliest, queue clusters 3 and 4 will have already passed the deadline for providing the first security posting (unless the FERC allowed the CAISO to suspend or delay the posting requirement). Because generation in queue cluster 4 and previous queue clusters is collectively more than enough to meet the 33% RPS goal, if all of those projects are grandfathered, then the CAISO's proposal may become moot. That is, by the time the CAISO's cost responsibility proposal was able to be fully implemented, the transmission and generation needed to meet the 33% RPS goals should be largely if not fully identified. While this might not be a bad outcome, a CAISO proposal that outlines which

queue cluster will be grandfathered under the current GIP would be very helpful to the procurement process and the generation development process.

*No generator has chosen to exercise this option in the past*

It is worth noting that under the current GIP the option already exists for generators to fully fund reliability and delivery network upgrades without refund. Under Section 11 of the GIP, generators may elect to receive congestion revenue rights rather than cash refunds from the transmission owner. To PG&E's knowledge, no generator has chosen to exercise this option in the past. Further, under the current process, the Participating TO has the option to up-front fund transmission network upgrades related to generator interconnection. This option has been exercised a handful of times by SCE, however, under very special circumstances. However by default, generators are required to up-front finance, and are refunded these costs. The CAISO's proposal is basically to eliminate this default option and to use the TPP, rather than PTO discretion, to decide when PTO up-front funding will be utilized.

In that under the current paradigm, the PTO has only used such discretion when its risk of cost recovery has been mitigated via abandoned plant cost recovery assurances from FERC, it makes sense that such protection should be afforded to the PTO in which service territory the upgrades will take place in order to ensure that such project's costs can be recovered. This concept is outlined under a slightly different context by SCE, attached as an appendix to the CAISO's straw proposal.

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)

Comments:

The issue of the timing for security postings, and when they could be released is an important aspect of implementation that needs examination if the CAISO is to pursue its Network Upgrade Cost Responsibility proposal. However, a discussion of how to reform and set out such requirements must necessarily follow from a determination of the timing for when the Network Upgrade Cost Responsibility proposal would go into effect. Under the CAISO's proposal, cost responsibility would not be determined until after Phase II studies are complete, and potentially after the third posting is due. At this point in the current proposal, a generator interconnection agreement may be signed or close to signing by the time the TPP has taken up a comparison of its 33% RPS results with the GIP results. Under the current process, this series of three postings is meant to require "skin in the game" by generators to ensure that only the "real" projects continue. It seems that with TPP identification taking place long after many projects have already dropped out of the queue could exclude certain projects that fit very well with the RPS portfolios, but have been deterred from continuing due to the high security posting requirements. PG&E continues to support the concept of "skin in the game" for generators. However, the security posting requirements pale in comparison to the impact to the generator's viability if it bears the full cost responsibility as a result of not making it into the TPP.

The current GIP determines a maximum up-front financing cost responsibility for generators at the end of the Phase I study. Under the CAISO's Network Upgrade Cost Responsibility proposal, the notion of a network upgrade cost cap no longer makes sense. Because the TPP will determine a maximum for what transmission will be

included in the transmission access charge for cost recovery, any cost above that value will be the responsibility of the generator. Due to this issue, it would not make sense to establish a cap on cost responsibility for generators. Because of this issue, it makes sense to determine as early as possible in the interconnection process, whether or not and the extent to which the network upgrades will be included in the Transmission Access Charge. This will provide some level of certainty to at least some portion of the generators in the interconnection queue, potentially signaling to generators whether or not they should continue to develop.

Section 5.1.2 of the Straw Proposal discusses upgrades that are “not yet committed to in executed GIAs. The GIA should be clear about which projects and project costs are associated with the interconnection of each individual generator. Further, to the extent that a transmission project is identified as Category 2, how should GIAs address cost responsibility, should the project eventually achieve Category 1 status?

## **Work Group 2**

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

### Comments:

PG&E understands that the methods and estimates that PG&E uses have been generally acceptable to generators interconnecting to PG&E’s service territory. Therefore, PG&E proposes to continue to use the estimating methods that it currently uses and is happy to discuss among the CAISO and other PTOs as well as other stakeholders, as appropriate. To the extent that further improvements need to be made, PG&E is willing to work with stakeholders to identify and implement such further improvements.

4. Generators interconnecting to non-PTO facilities that reside inside the ISO Balancing Area Authority (BAA);

### Comments:

PG&E generally agrees with the CAISO’s proposal with regard to generators interconnecting at non-PTO facilities that wish to ensure full capacity deliverability and thus qualifying for Resource Adequacy. PG&E suggests that if the CAISO is to pursue the Transmission Network Upgrade Cost Responsibility Proposal, then the CAISO’s proposal to require that the generator be responsible for the costs. However, to the extent that such upgrades are identified under the TPP, such cost responsibility should be released, similar to other in CAISO related transmission. To the extent that the CAISO does not pursue or delays consideration of its Network Upgrade Cost Responsibility proposal, then such network upgrades should be funded by the generator and refunded like other generators. Of course, this proposal could not be possible without the careful coordination with such non-PTOs to ensure that the interconnection processes are comparable.

5. Triggers that establish the deadlines for IC financial security postings.

Comments:

PG&E generally supports the CAISO's proposal to provide draft study reports to ICs. In order to effectively complete the interconnection studies in a timely manner, this proposal cannot impact the current study schedules as defined in the CAISO Tariff Appendix Y. PG&E wants to ensure that there is sufficient time to address any concerns and issues that are raised in the results meetings. PG&E looks forward to working with the CAISO, other PTOs and stakeholders on the appropriate draft report schedule.

While the proposed schedule appears to allow for some time for the CAISO and PTOs to incorporate the IC comments, the 14-21 days (after the IC comments due date) allowed for the report revisions may not be sufficient based on previous experiences. Based on previous experiences, IC comments can and have impacted other ICs as well as the overall cluster group reports. Unless the results meetings and the associated IC comments are coordinated correctly and in a timely manner, ICs could inadvertently impact those projects that had prior results meetings.

In addition, PG&E requests that the CAISO include clarification regarding the consequences of IC caused delays by not providing comments as specified. Does the delay translate to a late report or something as extreme as withdrawal from the Queue? The current proposal does not address this issue.

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

Comments:

PG&E believes that the current definition for "start of construction" is adequate, and that such information should be, if it is not already regularly outlined in the milestones section of the generator interconnection agreement. If an engineering and procurement agreement is executed prior to the execution of the generation interconnection agreement, then construction activities will begin according to the terms of that agreement. In either case, the interconnection customer, by virtue of executing either of those agreements, is very aware of the start of construction.

The issue of creating multiple postings for separate and discrete transmission phases of required upgrades is a new concept, that has little to do with the definition of the term "start of construction". PG&E is open to discussing staged postings that coincide with the start of construction for truly discrete components of a plan of service. However, PG&E cautions that quite often commitments for the purchase of major electrical equipment or land do not occur in discrete phases as envisioned in the CAISO's straw proposal, and would not make sense to do so.

PG&E looks forward to discussing this proposal with the CAISO and stakeholders in the working groups.

7. Improve process for interconnection customers to be notified of their required amounts for IFS posting



Comments:

PG&E agrees that the BPM is the appropriate venue for such protocols to be established and is committed to working with stakeholders to improve the process for notifying customers of the required amounts for IFS posting.

## 8. Information provided by the ISO (Internet Postings)

Comments:

PG&E has no comments on this item at this time.

**Work Group 3**

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

Comments:

In general, PG&E believes that for projects that have multiple distinct phases which each carry separate risk or intent of being fully developed, developers should utilize multiple interconnection requests. To the extent a developer does not wish to utilize multiple interconnection requests, there are opportunities early in the interconnection process to determine if the project should be downsized. Introducing an option to downsize at a very late stage in the interconnection process threatens to invalidate earlier study results (a key reason why the CAISO moved to cluster studies in the first place) and could result in a transmission plan that amounts to overbuilding. This concern is heightened by the CAISO's Network Upgrade Cost Responsibility Proposal because it is now less likely that generation will remain in the queue waiting to utilize such unused transmission capacity if the generation has the ultimate cost responsibility for such transmission.

The CAISO and other stakeholders have noted that such arrangements were utilized in the past where the PTO was upfront funding the required upgrades, and had cost recovery assurances from FERC in the case that the transmission upgrades in question were eventually determined to be abandoned or overbuilt (and perhaps some costs unrecoverable). Unless the project developer is willing to fully fund any costs or losses associated with network upgrades identified under its GIP studies, it is difficult to understand how the transmission owner could remain protected from the generation project's failure. In the case that the generator is willing to fully fund such costs, then PG&E is amenable to an arrangement where future generation could repay that downsized generator to cover its costs.

PG&E understands that some circumstances could cause a project to not reach its full development, but 75% is too high a number. PG&E suggests that this proposal and the next proposal be combined rather than separate, and change the allowable reduction to 10% of the Phase II size of the project. Under such an arrangement, up to a 10% reduction in project size would not trigger termination of the GIA. However, the interconnection customer would remain responsible for all costs associated with its Phase II interconnection.

10. Reduction in project size for permitting or other extenuating circumstances

Comments:

PG&E recommends that this issue be combined with the partial termination issue above as discussed above.

11. Repayment of IC funding of network upgrades associated with a phased generation facility.

Comments:

It is worth noting that this issue could be moot if the CAISO's Network Upgrade Cost Responsibility Proposal is implemented, as repayment for IC funding if network upgrades could no longer occur. However, assuming that the CAISO does not pursue the Network Upgrade Cost Responsibility proposal, PG&E is open to discussing such arrangements. PG&E generally agrees with the CAISO's proposal, subject to further discussions in the Working Groups.

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

Comments:

PG&E supports the CAISO's efforts to use the BPM to update Site Exclusivity requirements and guidelines.

13. Interconnection Refinements to Accommodate QF conversions, Repowering, Behind the meter expansion, Deliverability at the Distribution Level and Fast Track and ISP improvements

a. Fast Track application to facility repowerings

Comments:

PG&E supports the proposal to apply the Fast Track to existing repowering projects. The CAISO's logic behind this proposal is reasonable. PG&E supports the 5MW limit being applied to such repowering projects as well.

b. QF Conversion

Comments:



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PG&E supports the discussion and the clarification around different circumstances of converting QFs. PG&E supports Paths 1, 2, and 4, but believes that more discussion is needed before PG&E can support Path 3, using the ISP for repowerings where equipment is changing but the project elects not to change its deliverability. PG&E is unsure that an election to keep its previous deliverability would make much sense. For example, if the previous project was changing technologies on a fairly drastic basis, say from cogeneration to solar or wind, such an option would not make much sense. Further, the ISP was designed to accommodate projects that 1) are electrically independent, and 2) had COD-specific time constraints. These screens should still apply in order for a repowering QF that is making substantial modifications and reconfigurations to qualify to be studied under the ISP. Unless the CAISO can show that such projects will not have impacts on other interconnection requests, this proposal does not seem to make sense.

c. Behind the meter expansion

Comments:

Behind the meter expansions such as those described in the straw proposal need to be looked at on a case by case basis at the very least. Potentially, the project in total agrees to limit its output, then screens could be developed to quickly determine if such an expansion would have adverse effects on the system. In many cases the reliability studies take into account the time of delivery characteristics of the generator as they relate to the specific cases (e.g. on peak, off peak, partial peak, etc.). If such an expansion would change the output characteristics of the project as a whole then those study assumptions could be invalid, and a new study would need to be performed. While the CAISO has developed some good starting point ideas around commercial and technical requirements, PG&E looks forward to examining these closely in the working groups to determine if they are adequate.

d. Distribution level deliverability

Comments:

PG&E supports the notion of distribution level project below a certain MW size or that meet certain characteristics should be granted safe harbor and be deemed deliverable. As a starting point, PG&E recommends that any project that qualifies under the wholesale distribution tariff fast track should qualify for such a safe harbor.

### Work Group 4

14. Financial security posting requirements where the PTO elects to upfront fund network upgrades.

Comments:

PG&E is generally supportive of the notion of codifying in the CAISO tariff a waiver of security posting requirements in very specific cases where the PTO has unconditionally committed to fund the network upgrades. However, some of the details of this proposal need further discussion, particularly around the triggering event for such release. PG&E supports that the first two security postings are necessary in order to provide necessary skin in the game.

PG&E notes that this reform proposal might have limited applicability if the CAISO pursues the Network Upgrade Cost Responsibility proposal.

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

Comments:

PG&E has not comments on this proposal.

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

Comments:

PG&E supports the CAISO's proposal to include a discussion of the adjustment treatment of the cost estimates in each study report. PG&E is indifferent to the CAISO's default choice to use "constant dollars".

17. Clarify the Interconnection Customers financial responsibility cap and maximum cost responsibility

Comments:

PG&E concurs with the CAISO's interpretation and clarification regarding the cost cap for network upgrades under the current cost responsibility paradigm. PG&E notes that this is another example of a proposal that has little if any meaning if the CAISO pursues its Network Upgrades Cost Responsibility proposal.

18. Consider adding a "posting cap" to the PTO's Interconnection Facilities

Comments:

PG&E is open to discussing a security posting cap for PTO interconnection facilities, but wants to distinguish between this proposal and any proposal that would cap the ultimate cost responsibility for PTO interconnection facilities. PG&E suggests that the same posting caps that apply to network upgrades also apply to interconnection facilities.

## Work Group 5

19. Partial deliverability as an interconnection deliverability status option.

Comments:

PG&E supports the notion of partial deliverability as an option. PG&E would like to clarify that if an interconnection customer applies for partial deliverability and all the necessary network upgrades are completed based on that application, that a the interconnection customer will have an NQC that is based on that determined amount of deliverability, and is not advisory.

20. Conform technical requirements for small and large generators to a single standard

Comments:

PG&E supports conforming the technical requirements under the GIA as the CAISO has proposed.

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

Comments:

PG&E generally supports transferring the off-peak deliverability assessment to the TPP. However, the information provided by the GIP off-peak deliverability assessment could be particularly useful to generators whose costs are not included in the 33% TPP study results. Such a generator should have the option to sponsor such project in order to guarantee delivery of their project, if such a project has an off-peak generation profile. PG&E supports the CAISO's provision of this informational data, and the high level assumption that energy only projects will be dispatched at similar levels as similar projects requesting full capacity. This will provide realistic results that will allow interconnection customers to make informed transmission investment decisions.

22. Annual updating of ISO's advisory course on partial deliverability assessment

Comments:

While some stakeholders have stated that the information regarding the annual advisory partial/temporary deliverability is helpful, PG&E continues to assert that the studies would be immensely more valuable if those studies were not advisory, but instead could be used to determine actual NQCs so that generator could benefit with by qualifying to provide RA.

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23. CPUC Renewable Auction Mechanism requirement for projects to be in an interconnection queue to qualify

Comments:

PG&E has not comment on this topic.

**Other Comments:**

1. Provide comments on proposals submitted by stakeholders.
2. If you have other comments, please provide them here.