

Stakeholder Comments Template

Integration of Transmission Planning and Generation Interconnection Procedures (TPP-GIP Integration) Straw Proposal, July 21, 2011

Submitted by	Company	Date Submitted
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This template is for submission of stakeholder comments on the topics listed below, covered in the TPP-GIP Integration Straw Proposal posted on July 21, 2011 and discussed during the stakeholder meeting on July 28, 2011.

Please submit your comments below where indicated. At the end of this template you may add your comments on any other aspect of this initiative not covered in the topics listed. If you express support for a preferred approach for a particular topic, your comments will be most useful if you explain the reasons and business case behind your support.

Please submit comments (in MS Word) to TPP-GIP@caiso.com no later than the close of business on Tuesday, August 9, 2011.

1. The ISO has laid out several objectives for this initiative. Please indicate whether your organization believes these objectives are appropriate and complete. If your organization believes the list to be incomplete, please specify what additional objectives the ISO should include.

Objective 1 (holistic planning that makes most cost-effective use of ratepayer funds): While the objective of looking at the most cost-effective use of ratepayer funding is in itself a laudable goal, achieving such a goal might require integrated resource (command and control) planning or must rely on multiple market signals. As such a proposal that does not take into account commercial interest from a procurement perspective will be incomplete and could easily violate the stated objective. When looking at utility customer costs, it is important to remember that the costs of energy procurement far outweigh the cost of transmission. Likewise, the cost savings associated with have a more competitive energy procurement market outweigh the savings associated with a marginally more highly utilized transmission system. For this reason, PG&E believes that transmission costs should be merely an input for procurement decisions rather than the main driver, and the CAISO should take that into account when designing a coordinated TPP/GIP.

Objective 2 (Rely more on the TPP and less on the GIP): PG&E generally supports this goal, but not as an end in and of itself. The goal should be to create the right plan of service to meet the reliability standards and policy goals in the most efficient way possible. To the extent the TPP provides that efficiency, then it should be relied on to identify transmission. However, the TPP may not always be the most appropriate or efficient way to identify transmission. Under the current TPP, the information being used to create the transmission plan is incomplete and not up to date and therefore, lags behind commercial interest. Transmission should enable competitive markets by providing procurement options from multiple resource areas. In any case the CAISO and stakeholders should continue to endeavor to refine the TPP so that it will be justified to rely on it more heavily than the GIP to identify the right transmission projects to be identified for regional cost allocation.

Objective 3 (Provide incentives through appropriate cost allocation): Given that most of the generation in the CAISO's queue (since the inception of the cluster) is from renewable resources, which the CAISO has categorized in the past as cost constrained, achieving the goal of sending signals through cost allocation may not achieve the intended results when considering the all-in costs to customers. It is important that the transmission planning process not send the wrong signal or create incentives for the wrong (i.e. higher all-in cost) projects to develop. Because transmission is a relatively small cost compared to the cost of procurement, commercial interest should drive transmission decisions rather than transmission decisions forcing commercial decisions. Commercial interest does not merely mean "where potential generators believe that they would like to connect to the grid"; commercial interest moreover means "where purchasers of generation output (such as PG&E) are seeking to make purchase." I.e. the existence of a power purchase agreement should weigh heavily in this process going forward. Further, incentives should be provided at the front end of the generator interconnection process, not at the back end.

Objective 4 (Under utilization of transmission): Given that the marginal cost savings of higher utilization of transmission would be outweighed by the marginal cost of increased competition in generation procurement, PG&E has supported transmission development to accommodate interconnection of multiple resource areas in order to provide for a robust and competitive market for resources. In order to accomplish this, transmission might necessarily be less utilized at the time the 2020 goal is reached. Even a small percentage of reduced cost in the procurement market could justify costly transmission upgrades.

With respect to Objective 4, it is useful to look at an analogy with the natural gas transmission system. Similar to electric transmission, natural gas transmission is a small percentage of the all-in cost of providing natural gas to customers (including gas-fired generators). Similar to the potential underutilization of electric transmission, PG&E would observe that natural gas transmission capacity to and within California has been largely underutilized over the last two decades. This large amount of gas transmission capacity has resulted in some

additional, relatively modest costs to California's gas and electric customers. However, the benefits of gas-on-gas competition (via extra transmission capacity and multiple geographic options for procurement) to gas and electric customers from large amounts of natural gas transmission capacity have been far higher than the additional gas transmission costs.

Objective 5 (Promoting siting certainty): This goal is only achieved for projects that make use of TPP-approved transmission. Based on the statements of the CPUC Energy Division, non-TPP approved upgrades, even if fully funded by a generation developer or developers would have a more difficult time achieving siting than a project approved via the TPP. Under that assumption, the proposal the CAISO is considering might make it very difficult, leaving cost aside, for generation projects to develop if the transmission needed to interconnect them is not included in the TPP.

Objective 6 (Transparency): Certainly this is a laudable goal.

Objective 7 (Clarification of outstanding GIP issues): PG&E supports finding solutions to the outstanding issues contained in the current GIP.

While it is listed as a sub-objective of Objective 7, one of the more important objectives that deserves to stand alone is to “better manage the unrealistic volumes of capacity entering the queue” This goes hand-in-hand with designing a process that yields meaningful results.

The CAISO should have as an objective that this new proposal should not add time to the already lengthy process for interconnecting generators to the CAISO Grid.

2. At the end of the Objectives section (section 4) of the straw proposal, the ISO lists seven previously identified GIP issues that may be addressed within the scope of this initiative.
 - a. Please indicate whether your organization agrees with any or all of the identified topics as in scope. If not, please indicate why not.

In general the issues presented are being addressed now in the GIP2 stakeholder process. This straw proposal has the potential to significantly impact certain aspects of that stakeholder initiative, which is scheduled to be considered by the CAISO Board August 25-26, and therefore need to be addressed in this stakeholder process.

Examples include but may not be exhaustive (section numbers are the provisions of the GIP 2 Revised Final Draft Proposal¹):

7.2.2 Generators interconnecting to non-PTO facilities in the ISO BAA

7.3.1 Partial termination provisions

7.3.3 Repayment of IC funding for network upgrades associated with phased generation

7.4.1 Modify the second and third financial security posting requirements to offset for PTO funded network upgrades

7.4.4 Clarify the Interconnection Customer's financial responsibility cap and maximum cost responsibility

7.4.8 PTO abandoned plan cost recovery

- b. Please identify any other unresolved GIP issues not on this list that should be in scope, and explain why.
3. Stage 1 of the ISO's proposal offers two options for conducting the GIP cluster studies and transitioning the results into TPP.
- a. Which option, Option 1A or Option 1B, best achieves the objectives of this initiative, and why? Are there other options the ISO should consider for structuring the GIP study process?

Of the two options, Option 1B seems to be only one that would not add time to the current GIP. It seems pointless to conduct a full 2-phase interconnection study process before determining which transmission network upgrades will be covered by the TPP and which would be funded by generation in the queue.

Any sort of GIP Phase II study should be conducted after the the TPP has provided enough information for generators to decide whether or not to proceed with interconnection.

- b. What, if any, modifications to the GIP study process might be needed?

¹ <http://www.caiso.com/Documents/RevisedDraftFinalProposal-GenerationInterconnectionProceduresPhase2.pdf>

PG&E suggests two possible variations that would more closely align with the objectives. Variation 1: In order to get full use of the coordination between the TPP and the GIP, the queue window in which generators apply for the GIP should occur after release of the TPP comprehensive plan. That is, the TPP should inform the generation community how much transmission capacity is available, how much generation is being accommodated in each geographic resource area. This would enable generation developers to choose to apply in these cost effective areas.

Variation 2: In the alternative, the CAISO could conduct GIP Phase I simultaneously in time with conducting TPP Phase II. While this would not provide any incentive to locate in the “right” place to the generation developers, it would save valuable time in the process. Under this alternative, the conclusion of the Phase II TPP and the GIP Phase I reports would include the determinations about which transmission elements of the GIP Phase I would be included in the TPP and how much generation is accommodated in each area. This information could be used by generators to determine whether or not to stay in queue. Of these two variations, PG&E prefers this second variation.

PG&E was impressed by the SDG&E suggestion that GIP studies utilize the concept of stages of transmission to accommodate incremental levels of generation. As PG&E understood the suggestion, the group report for a combined TPP Phase II / GIP Phase I would identify how many MW of generation would be accommodated by the TPP, then add the next most cost effective network upgrade, paired with how many incremental MW would be accommodated, and so on until the entire queue cluster was satisfied. This would fulfill the obligation to provide information to the entire queue, but would also inform generators of where the logical MW build-outs should take place. This would satisfy objective 3, to give incentives through appropriate cost allocation.

4. Stage 2 of the straw proposal adds a step to the end of the TPP cycle, in which the ISO identifies and estimates the costs of additional network upgrades to meet the interconnection needs of the cluster. Please offer comments and suggestions for how to make this step produce the most accurate and useful results.

See discussion on 3(b) above.

5. Stage 3 of the straw proposal identifies three options for allocating ratepayer funded upgrades to interconnection customers in over-subscribed areas.
 - a. Please identify which option, Option 3A, 3B, or 3C, your organization prefers and why. Are there other options the ISO should consider?

PG&E preliminarily supports Option 3A, under which generators that reach certain commercial milestones would be allowed to utilize transmission space that is created through the TPP. Option 3A encourages the generators in the queue to make decisions to stay or go based on the development of market realities. That is, the projects that get the PPAs or are ready commercially to develop will continue. The projects that are not cost effective and cannot acquire a PPA or achieve financing will not be able to continue. There remains a concern that if the milestones are too easily achievable that projects could “hog” the transmission space awaiting a commercial deal, while other more cost effective projects are allocated excess transmission costs. Further, Option 3A implicitly assumes that the generators most cost effective for ratepayers are part of the known (existing, current) set of generators. I.e., Option 3A would disadvantage generators that might incorporate technology advances during project development period, as well as generators that might not make themselves known until, say, 2013 or 2016.

Both of these concerns can be substantially mitigated. First, TPP assumptions should be updated as quickly as possible to account for commercial interest. As an example, if information regarding signed PPAs could be incorporated into the portfolio assumptions for the TPP Phase II, then the TPP would already accommodate generation that will eventually achieve approved PPAs. Further, the TPP should plan for transmission that satisfies multiple renewable build-out scenarios, rather than a plan that only meets the needs of all scenarios.

Lastly, the CAISO should allow into TAC transmission, costs associated with generators that meet certain commercial milestones, even if the transmission was not originally included in the TPP. This would allow for the transmission plan to be updated to properly reflect commercial interest as that information becomes available.

Option 3B does not have appeal to PG&E because it does not send signals to generators to leave the queue. Instead it becomes a waiting game as generators hang on until others drop out in the hopes that the allocated costs drop. It would also require constant reallocation as generators drop out.

While Option 3C (auction the transmission space) has appeal from an economic theory perspective, in practice it favors entities that have access to large amounts of short term borrowing, and are able to come up with the largest refundable deposits. If the CAISO is to pursue such an option, the auction revenues should not be refunded, but rather benefit ratepayers (either by reducing the TAC or the GMC) and not be returned to auction participants. This would satisfy the objectives of the initiative by making any transmission solution more cost effective for ratepayers. The revenue

could either be used to offset the cost of the actual cost of the transmission facility, or could be used to offset the Grid Management Charge.

- b. If Option 3A is selected, what are appropriate milestones to determine which projects are the “first comers?”

The milestones would have to be crafted to mirror as closely as possible the commercial realities of the procurement process. Therefore, a signed PPA or a regulatory body approval of a PPA should be among the important milestones considered. Also important could be obtaining a siting permit or being considered in the discounted core of the CPUC portfolios.

- c. If Option 3B is selected, what is the appropriate methodology for determining pro rata cost shares?

In either case, under 3B especially, restudy and reallocation could occur on a constant basis as some projects fail to materialize. If Option B is selected, allocation on a flow based impact makes the most sense. This could send signals to generators that have the highest impacts to drop out of the queue, which could benefit the remaining impacting generators if transmission elements were no longer needed. An allocation on a \$/MW capacity basis has the benefit of being simple, but would not include the right signals to generators that have high impacts driving the need for transmission upgrades.

- d. If Option 3C is selected, how should such an auction be conducted and what should be done with the auction proceeds from the winning bidders?

See discussion above.

- 6. The straw proposal describes how the merchant transmission model in the current ISO tariff could apply to network upgrades that are paid for by an interconnection customer and not reimbursed by transmission ratepayers. Do you agree that the merchant transmission model is the appropriate tariff treatment of such upgrades, or should other approaches be considered? If you propose another approach, please describe the business case for why such approach is preferable.

The merchant model is problematic to the extent that as a transmission owner, such entities would subject themselves to NERC requirements. Generators may not be prepared or inclined to take on such obligations. An alternative exists where the PTO owns the facilities and the funding generator receives the associated congestion revenue rights. This is an existing model that is

contemplated in the current LGIA under Section 11.4. While to date PG&E is not aware of an interconnection customer making use of this option, it has been part of the CAISO tariff since the CAISO's original Order 2003 compliance LGIA.

Further, certain network upgrade facilities, mostly reliability-related upgrades such as substation work, switching stations and other upgrades to network facilities to allow the physical interconnection of generating units would be so integrated into the existing network such that parsing out ownership would be very problematic, if not impractical. Even if such facilities are funded by interconnection customers they should not be treated as a "merchant" facility.

7. Stage 3 of the proposal also addresses the situation where an IC pays for a network upgrade and later ICs benefit from these network upgrades.
 - a. Should the ISO's role in this case be limited to allocating option CRRs to the IC that paid for the upgrades?

Yes.

- b. Should the ISO include provisions for later ICs that benefit from network upgrades to compensate the earlier ICs that paid for the upgrades?

This option is preferred as it provides certainty and transparency for all parties involved, as well as ensuring increased utilization of transmission facilities.

8. In order to transition from the current framework to the new framework, the ISO proposes Clusters 1 and 2 proceed under the original structure, Cluster 5 would proceed using the new rules, and Clusters 3 and 4 would be given an option to continue under the new rules after they receive the results their GIP Phase 1 studies.
 - a. Please indicate whether you agree with this transition plan or would prefer a different approach. If you propose an alternative, please describe fully the reasons why your approach is preferable.

PG&E does not believe that the transition should apply to projects in Cluster 3, nor to those that submitted applications in Cluster 4 under the Energy Only/Full Capacity one time option. Those projects should be grandfathered under the current cost allocation methodology. In that Cluster 4 may be processed under an alternative methodology in any case, transitioning to the new proposal for Cluster 4 applications from new generators (as opposed to existing or previously studied generators that applied under the one-time deliverability option) may make sense.

The proposal does not address the transition of non-cluster projects, including projects studied under the Independent Study Process, Fast Track, and PTO Wholesale Distribution Tariffs.

- b. If the straw proposal for the transition treatment of clusters 3 and 4 is adopted and a project in cluster 3 or 4 drops out instead of proceeding under the new rules, should the ISO provide any refunds or other compensation to such projects? If so, please indicate what compensation should be provided and why.

The CAISO should avoid any transition under which generators might have a right or a claim to receive compensation or damages. Projects that have completed Phase I studies and posted a Phase I interconnection financial security posting should be grandfathered. The CAISO's transition proposal should limit any compensation to refunds of study deposits and release of any posted financial security.

9. Some stakeholders have expressed a need for the ISO to restudy the need for and costs of network upgrades when projects drop out of the queue. The ISO seeks comment on when and restudies should be conducted, in the context of the proposed new TPP-GIP framework.

PG&E agrees that costs will need to be reallocated and the plan of service may need to be reevaluated in some circumstances when generators drop out of the queue. In order for the process to work in an orderly fashion, perhaps certain milestones should be set up to encourage projects to make business decisions to withdraw or remain. This would provide a set time for plans of service to be re-evaluated. PG&E suggests that if a generator or generators leave the queue and the PTO and/or CAISO believe that either the plan of service would be changed or, that the cost responsibility of any of the remaining generators would be changed by some minimum threshold (say 5% or 10%), then a reallocation and reevaluation should occur.

10. Some stakeholders have suggested that there may be benefits of conducting TPP first and then have developers submit their projects to the GIP based on the TPP results. Does your organization believe that conducting the process in such a manner is useful and reasonable?

See PG&E's comments above. PG&E supports creating a process that provides information to the generation development community so that the initial queue application can be more informed. This would hopefully lead to more realistic queue applications. Because the TPP and GIP are cyclical, the previous TPP cycle should be able to inform the next GIP cluster cycle, as long as they are timed well enough to do so.

11. Please comment below on any other aspects of this initiative that were not covered in the questions above.

PG&E notes that the CAISO's proposal could have impacts on the wholesale distribution tariffs of the PTOs which also have provisions for refunds of network upgrades. If these policies are not aligned then PTOs could be exposed to refunds for network upgrades for which they no longer have a cost recovery vehicle (the TAC).

Lastly, PG&E requests that the CAISO opine on how the CAISO's cost responsibility proposal might line up with the independent study process, Fast Track, and PTO Wholesale Distribution Tariff procedures. Because the timing of the ISP process is more open-ended, determining how to study such projects and if the transmission network upgrades identified through that process are or will be accounted for in the TPP may be difficult. It might make sense to include network upgrade costs for ISPs in the TAC.