

Stakeholder Comments Template

**Integration of Transmission Planning and Generation  
Interconnection Procedures (TPP-GIP Integration)  
Second Revised Straw Proposal, posted January 12, 2012**

**Please submit comments (in MS Word) to [TPP-GIP@caiso.com](mailto:TPP-GIP@caiso.com) no later than the close of business on January 31, 2012.**

Submitted by	Company	Date Submitted
Keith White <a href="mailto:kwh@cpuc.ca.gov">kwh@cpuc.ca.gov</a> 415-355-5473	California Public Utilities Commission Staff	January 31, 2012

This template is for submission of stakeholder comments on the topics listed below, which were discussed in the TPP-GIP Integration Second Revised Straw Proposal posted on January 12, 2012, and during the stakeholder meeting on January 19, 2012.

Please use the list of topics and questions below to structure most of your comments. At the end of the document you may offer comments on any aspect of this initiative not covered by the topics listed. When you state a preference for a particular approach on a topic or issue, your response will be most helpful if you clearly explain the reasoning and business case for your preference.

**Section 1. High-level structure of the TPP-GIP Integration proposal. (Please use section 2 below to comment on the details of each element.)**

1. The process as described in the January 12 paper and outlined below reflects the proposed process for projects in GIP cluster 5 and later. The process for existing queue projects (serial through cluster 4) will proceed according to the ISO's January 10, 2012 revised discussion paper.
2. After GIP Phase 1, each generation project advancing to GIP Phase 2 must elect either (A) – project requires TPP-based deliverability; or (B) – project is willing to pay for delivery network upgrades.
3. The requirement for customer-funding of network upgrades (option (B)) would apply only to delivery network upgrades (DNU); posting and reimbursement for reliability network upgrades (RNU) for all projects would remain as today.
4. The allocation of TPP-based deliverability to generation projects would occur after GIP Phase 2, rather than after Phase 1 as in the previous proposal.

5. Allocation of TPP-based deliverability – and project’s ability to retain allocation – will depend on the project’s completion of significant development milestones that demonstrate high confidence in attaining COD. (Specification of appropriate milestones is covered in the next section.)
6. The allocation of TPP-based deliverability should achieve the following objectives as far as possible: (a) select projects with high probability of completion; (b) limit ability of non-viable projects to retain the allocation; (c) provide sufficient certainty to enable financing of viable projects; (d) objectivity and transparency.

This should be reworded to state “...to enable financing of the most *valuable and viable* projects.” The procurement process will provide the GIP with useful information on both *viability and value*.

## Section 2. Details of individual elements of the proposal.

### GIP Phase 1

7. For extremely large cluster groups compared to the amount of “TP deliverability” (the amount supported by existing grid plus all approved upgrades to date), GIP phase 1 will study deliverability in each area up to the amount of TP deliverability plus a reasonable margin. The intent is to avoid excessive DNU costs that can result from extremely large clusters, while providing useful information on needed DNU and associated costs if generation development exceeds grid capacity.

The last sentence should read “...and associated costs if generation development *were to exceed* grid capacity”, since the studies are prospective and deal with *proposed* generation. Also, the stated intent should be not only to avoid “excessive DNU costs,” but also to *avoid inefficient (for all parties) planning and re-planning* for unnecessarily large magnitudes of DNU beyond what would be needed by realistic amounts of generation. Depending on prior procurement and transmission planning as well as on where proposed generators are located, this situation could occur even when clusters are not “extremely large.” Also, it should be clarified that the reason for studying “TPP deliverability plus a reasonable margin” is for *informational* purposes, not to directly plan the additional transmission that is “needed.” The information purposes include (1) informing potential category (B) generators (as defined below) of their potential financial exposure, and especially (2) informing development of resource scenarios for the next TPP cycle, since such scenario development will give considerable weight not only to value and commercial interest regarding additional resources, but also to the cost of additional transmission to support those resources. For example, it may not be cost-effective to make all additional resources fully deliverable as defined for CAISO study purposes.

8. Phase 1 will study RNU for all projects in the cluster.

CPUC Staff request clarification on, whether in some situations and locations RNU may be driven by a large *aggregate* amount of proposed generation being studied in a resource area, rather than being attributed to individual or a few generators driving individual RNU. If so, it is appropriate to additionally calculate and report, for informational purposes, RNU facilities and costs under an alternative scenario in which a lesser, more realistic amount of generation

ultimately proceeds where an unrealistically large amount of generation was studied for interconnection such that RNU driven *only* by an unrealistically high aggregate level of generation could be eliminated.

9. As a result of Phase 1 each project will know its RNU and associated costs, and these results will establish cost caps for RNU as they do today.
10. The DNU and associated costs resulting from phase 1 will be advisory. The only formal use of Phase 1 DNU costs in the TPP-GIP process will be to establish posting requirements for projects advancing to phase 2 under option (B), as described below.

### **Project's Decision to Enter Phase 2 and Implications of Decision**

11. After GIP Phase 1, each generation project advancing to GIP Phase 2 must elect either (A) – project requires TPP-based deliverability; or (B) – project is willing to pay for delivery network upgrades. Once a project chooses and the deadline for phase 2 is passed, the project cannot switch to the other option.
12. A project choosing (A) will have to post for its RNU under today's rules, but not for DNU.
13. A project choosing (B) will have to post for both RNU and DNU. Its DNU posting amount will use phase 1 results for the project's study area, converted to a DNU rate (\$ per MW of deliverability) = (cost of incremental DNU)/(deliverability MW studied above TP deliverability amount). The posting amount will = rate x (project MW), where project MW reflects how the project is modeled in the deliverability study depending on the resource type, would typically be less than nameplate for renewables.

CPUC Staff request clarification whether deliverability studies in general will be based on generators injecting at their RA capacity levels. Such a methodology is appropriate since the purpose of deliverability studies and allocation of deliverability to a generator is to verify that generators can be relied upon to make particular RA levels of contribution to meeting overall system loads under conditions of peak resource need.

14. A project choosing (B) will be eligible for TPP-based deliverability if available, but should expect very low probability of obtaining it and should plan to fully fund its needed DNU.

### **GIP Phase 2**

15. ISO will perform a baseline re-study at the start of each phase 2 study process. The re-study will assess impacts of status changes – project drop-outs or revised COD, new transmission expansion approvals, etc. As a result, the RNU or DNU for some projects may be modified and their GIAs revised.

As a baseline, the Phase 2 study would presumably start with transmission included in a comprehensive plan finalized one year later than the comprehensive plan forming the baseline for Phase 1 studies. This updated plan would have been developed via TPP studies contemporaneous

with the GIP Phase 1 studies, and should be ready for use as a GIP baseline when GIP Phase 2 studies start. It is important that such timing coordination be established.

On the other hand, if transmission additions were previously included in a CAISO Plan based on assumed generation development, and substantial evidence indicates that such development is not occurring or planned for procurement, then such transmission additions should be removed from deliverability studies if they have not yet begun construction, especially if they have not yet received necessary permits. If such transmission additions are subsequently found to be needed via TPP studies, then they should then be included in the GIP study baseline.

16. Phase 2 will study RNU for all projects in phase 2.

*...all projects proceeding to Phase 2.*

17. Phase 2 study will assume that all TP deliverability is used up by (A) projects and existing queue, and then will model (B) projects at requested deliverability status to assess their incremental DNU needs.

#### **Allocation of TPP-based Deliverability**

18. Once phase 2 results are completed and provided to the **generation** projects, the 120-day period for negotiating and executing the GIA begins. Option (A) projects that demonstrate completion of certain milestones within this period will be able to execute GIAs at their requested deliverability status, with no cost responsibility for DNU. Option (B) projects that complete the same milestones would be eligible for TPP-based deliverability, but would receive an allocation only if capacity is available.

It is necessary to clarify the priority (for obtaining TPP-based deliverability) of prior cluster generators, especially since a generator would have one year from the end of Phase 2 studies (plus the 120 day window in which to sign the GIA) to put itself on “hold” while seeking to achieve milestones required for obtaining TPP-based deliverability. CPUC Staff recommend that such prior cluster generators seeking a one-year delay (starting with cluster 5, the first cluster for which proposed TPP-GIP provisions would first apply) have equal but not higher priority than generators in a later cluster that meet their milestones within 120 days of completing *their* initial Phase 2 studies. Beyond this, pre-cluster 5 generators should have higher priority for TPP-based deliverability, but only if they continue to make progress towards (or consistent with) milestones, such as described in CPUC Staff comments regarding CAISO’s proposed “*Cluster 1-2 Deliverability*” solution.

19. The proposed milestones required are (a) completion of all permitting required to begin project construction, and (b) either a PPA approved by buyer’s regulatory authority or demonstration of committed project financing. PLEASE COMMENT on whether these milestones are appropriate, or if not, what milestones would be preferable and explain why. Please keep in mind the objective that milestones must provide a high confidence that the project will meet its planned COD.

CPUC Staff recommend that an appropriate milestone is having an approved PPA (or equivalent, for a generator contracting to a load serving entity not requiring regulatory approval of contracts).

Permitting and financing status should be sufficiently reflected (subsumed) in power contracting status, since if a generator seeking full deliverability and RA value is unable to secure financing or develop its site, this will be reflected in low power contract viability and failure to meet power contract terms, and since the contracting process is expected to continually monitor generator viability and compliance with contract terms.

Concern has been expressed that a 120-day window following completion of Phase 2 studies leaves insufficient time for a generator to achieve milestones required to obtain TPP-based deliverability. However, CPUC Staff make two observations in this regard. First, the recommended milestone for this purpose is an approved PPA (or equivalent, for contracts not requiring regulatory approval), and it would be expected (and is in fact essentially necessary), that the generator have entered the procurement process well ahead of this milestone deadline, particularly since the total duration of Phase 1 and 2 studies is approximately *two years*. Second, if the generator cannot demonstrate having an approved PPA (or equivalent) within 120 days of completing Phase 2 studies, the generator would have, under this proposal, an additional year in which to achieve this milestone. That should be sufficient time.

20. PLEASE COMMENT on what could constitute evidence of committed project financing as an alternative to regulator-approved PPA for item (b) above.

CPUC Staff recommend that the determinative milestone be an approved PPA (or equivalent). Failure to achieve financing should be reflected (subsumed) in inability to achieve an approved PPA or else in inadequate post-PPA contract performance that should result in loss of TPP-based deliverability, as recommended by CPUC Staff in conjunction with both this CAISO TPP-GIP proposal and the CAISO's proposed "Cluster 1-2 deliverability" solution.

21. All option (A) projects that meet the milestones by the time required would be able to execute FC GIAs at this time, even if the total amount exceeds the TP deliverability available. In that case, the ISO would expand the TPP planning portfolio in that area for the next TPP cycle, to provide sufficient deliverability.

Consideration of increasing TPP-based deliverability should also take into account the estimated cost of the additional transmission (see response to point 7 above), and the value of (and need for) incremental RA capacity. In particular, such considerations are expected to inform development and use of resource scenarios for the TPP, with state regulatory agencies playing a significant role.

22. Any project that obtains TPP-based deliverability would have additional milestones in its GIA which track progress toward COD. Failure to meet one of these milestones would cause the project to lose its deliverability allocation, but would not necessarily terminate its GIA if the project wishes to continue as EO.

Among these additional GIA milestones should be continuing to meet requirements under the generator's PPA as determined by the LSE and regulatory authorities. Once a generator comes on-line with full deliverability, continued (not corrected) substantive non-adherence to contractual or CAISO tariff-based requirements could still result in loss of deliverability.

23. An option (A) project that does not meet the milestones by the time required would have an opportunity again in the next GIP phase 2 cycle, one year later. If it does not qualify by the end of the next year's 120-day GIA period, it must either withdraw from the queue or continue under an Energy Only (EO) GIA.

The fact that the generator has this one year delay option should alleviate concerns that 120 days after Phase 2 studies are completed may provide insufficient time to achieve required milestones, including the CPUC Staff-recommended milestone consisting of an approved PPA. A remaining question is what priority for deliverability such a generator (achieving milestones after a one year delay) would have, relative to generators which seek TPP-based deliverability in the following GIP cycle and achieve their milestones within their *first* 120 day GIA negotiation period. As stated above (for point 19) CPUC Staff recommend that these two categories of generators be given equal priority when they have comparable status with regard to milestone achievement.

24. An option (B) project that does not obtain TPP-based deliverability in the current cluster cycle (120 days from phase 2 results to GIA execution) will no longer be eligible for TPP-based deliverability and must proceed to GIA that includes full self-funding of its DNU.

Such a generator should be able to select energy-only deliverability, if Phase 2 estimates of its DNU costs substantially exceed Phase 1 estimates.

25. If a (B) project drops out after phase 2 instead of executing a GIA that includes self-funding of its DNU, it loses a portion of its posting. PLEASE COMMENT on how much of the posting should be forfeited, and explain your logic.

CPUC Staff do not presently recommend a value for this percentage, but believe that it should be substantial but not 100%. Furthermore, if the Phase 2 estimate of a category (B) generator's costs exceeds the Phase 1 estimate upon which the generator based its decision to proceed to Phase 2, then the forfeiture should be reduced by the amount by which the Phase 2-estimated costs to be borne by the generator exceed the Phase 1-estimated costs. For example, if the initial posting is 15% of a construction cost estimated to be \$100 million in Phase 1 but \$170 million in Phase 2, then the forfeiture of the \$15 million posting ( $0.15 \times \$100$  million) would be reduced to \$15 million minus  $0.15 \times (\$170 \text{ million} - \$100 \text{ million})$ , or, in this instance, a reduction of the forfeiture to \$4.5 million. Also refer to comments on the next point 26.

### **Other Proposal Elements**

26. DNU paid for by an interconnection customer would fall under the merchant transmission provisions of the ISO tariff and would be eligible for allocation of congestion revenue rights commensurate with the capacity added to the ISO grid. The customer would be able to select a non-incumbent PTO to build the project, provided it is a "green field" project and the builder meets qualifications specified in the ISO tariff.

If a category (B) generator commits to using (and is eligible to use) a third party transmission developer, then any forfeiture of financial posting should be limited, because the financial arrangements and risk are then largely between the generator and its third party transmission developer, not involving a PTO having an obligation to construct. In such situations, forfeiture need only be sufficient (1) to discourage premature pursuit of category (B) based (self-funded)

deliverability plus (2) to recover the cost of inefficient or revised transmission studies due to category (B) generator drop-out after Phase 2.

27. If a (B) project funds DNU that provide more capacity for deliverability than the project needs, the funding party or parties would need to fully pay for the DNU, but would receive reimbursement for the excess deliverability from later projects that are able to use it.

Reimbursement should be for the depreciated value of the transmission additions in question. Such depreciation would not make much difference in cost recovery unless the “later” generators arrive several years later.

28. Some projects that go forward under these new provisions could be subject to reduction in annual net qualifying capacity (NQC) for one or more years. This could occur if transmission capacity in an area must be expanded through the TPP to accommodate the amount of deliverable capacity that achieves COD in that area. Consistent with the ISO’s January 10 discussion paper on cluster 1-2 approach, “existing” projects would not be subject to the reduction, but “new” projects would be. “New” would include all cluster 5 and later projects that elect option (A).

As discussed in CPUC Staff comments on the CAISO’s January 10, 2012 cluster 1-2 deliverability paper, pre-cluster 5 generators should be categorized as new for purposes of NQC derating if they fail to meet (or stop meeting) contractual requirements after having been allocated deliverability or “existing” status. CPUC Staff also note that since major transmission upgrades may lag the in-service dates of generators that have been allocated deliverability, it may also be necessary to derate the NQC of generators having “existing” status (after first derating the “new” generators), at least until the transmission upgrade comes on-line. In such a case, generators that originally obtained their deliverability *without* needing the transmission additions in question should not have their NQC derated.

29. It was suggested by some stakeholders at the January 19 meeting that as an alternative to applying NQC reductions if the need arises, the ISO should allow the new projects to count fully for resource adequacy without any NQC reduction so that the projects and the LSE buyers are insulated from any direct impacts, and then make up for any resulting shortfall in resource adequacy capacity via ISO backstop capacity purchases. PLEASE COMMENT on this proposal.

The generators in question should be allocated their realistic year by year NQC values for RA purposes, and any need for additional RA capacity should be addressed via the Commission’s procurement process, including the manner in which that process treats or requires deliverability, and the way that replacement RA capacity is valued and obtained. CPUC Staff also note that providing partial deliverability (i.e., for a portion of a generator’s full MW) may be useful in such situations, especially if less than 100% deliverability of a generator’s capacity is expected to last several years, such as when there are no plans (or need) to add the additional transmission to make all generators in an area fully deliverable.

30. Please use the space below to offer comments on any other aspect of the proposal not covered above.

