Stakeholder Comments Template

Subject: Generation Interconnection Process Reform Initiative

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the following topics covered in the January 11 Market Notice regarding the Generation Interconnection Reform Initiative. Upon completion of this template please submit (in MS Word) to isoqueue@caiso.com.

Submissions are requested by close of business on February 4, 2008.

Please submit your comments to the following questions for each topic in the spaces indicated.

1. **Does one queue window per year seem reasonable considering that the CAISO Transmission Planning Process (TPP) is annual? What would be the advantage of having more than one queue window per year?**

   There should be at least two queue cluster windows and at least two generation interconnection study processing windows in each calendar year to allow timely study of interconnection requests. These windows would be staggered so that a new queue cluster window overlaps the queue processing window for the preceding queue cluster window (see table below).

   Generators signing IAs within a processing window should be rolled into the TPP that commences in Q1 of the next calendar year, so that an IA would be placed in the TPP process either 12 or 18 months after its queue cluster window opened (if only two clusters were implemented). Generators requesting to enter the TPP phase with an unexecuted IA should be treated the same in this process as those executing an IA, so the terms of the IA can continue to be negotiated without impeding the progress of the generating project or the necessary transmission upgrades. Alternatively, an IC may elect to continue IA negotiations and enter its project into the TPP phase in the next annual cycle.

   This arrangement offers projects at least two opportunities to be studied within a single year, allowing them to prepare their IR in due course rather than trying to rush their project into an

infrequent study process prematurely to the detriment of all parties involved. More frequent opportunities will also promote competition among generators participating in competitive bidding processes.

We propose the following timeline for the queue cluster and interconnection processing windows:

Phase	Date Range	Activities
Queue Cluster Window	Day 1-120	• CAISO opens the queue window and invites IR applications. • ICs submit their IRs, including the interconnection point and deliverability level for their project(s). • CAISO starts the process of grouping projects. • CAISO identifies deficiencies in project applications and works with ICs to resolve them within one month. • CAISO closes the application window on day 120.
	Day 121-150	• CAISO completes the IR validation process. • CAISO finalizes the generator grouping. • CAISO conducts scoping meetings with individual ICs to identify interconnection point(s) and project grouping arrangements. • CAISO identifies the relevant basecase(s) and study scenarios in coordination with ICs.
	Day 151-180	• CAISO prepares the relevant basecase(s) and study scenarios in coordination with PTOs and shares them with ICs.
	Days 1-60	• CAISO performs Phase I studies to determine the needed delivery transmission upgrades and assigns cost responsibility among projects.
Queue Processing Window	Days 61-90	• If IC chooses to enter into Phase II studies, CAISO and ICs work on entering into Phase II studies. If IC chooses to submit its project into the next queue cluster window, it will have at least 30 days to do so at this time.
	Days 91-150	• CAISO performs Phase II studies to determine all network reliability upgrades and the associated cost responsibilities for each project. • CAISO determines individual projects' interconnection facility needs and the associated cost responsibilities.
	Days 151-180	• CAISO informs ICs of all of their financial commitments. • IC chooses to enter into IA knowing its financial commitments, elects to continue with an unexecuted IA, or drops out. • IC works with CAISO and PTO to select a reasonable COD. • CAISO, PTO and IC sign the IA. • IC posts the first installment of its transmission cost responsibility for all of its projects with signed IAs.

The timeline presented here is sufficiently long for all the identified activities to be properly performed. Given the timing of the TPP cycle, we recommend that the queue windows start on January 1st and July 1st of each calendar year.

Furthermore, all delivery network upgrade cost responsibilities identified through the Phase I studies should be final and binding on all parties for the projects that continue with Phase II studies. The Phase II studies should solely focus on calculating reliability network upgrades and project-specific interconnection facility cost responsibilities. Since delivery network upgrades often account for the large majority of interconnection costs, this will allow ICs to make informed decisions about whether to enter into Phase II studies based on meaningful information as opposed to advisory cost estimates as suggested in the CAISO Issues Identification Paper.

It is possible that the time required for the IR process could be reduced even further by moving beyond the clustering approach and simplifying IR studies. PG&E suggested such an approach – using a single interconnection study - and this suggestion is worth consideration. Proper evaluation of the PG&E suggestion requires additional detail, including a description of how the single study concept fits within the overall process.

2. What should be the minimum requirements for an Interconnection Request (IR) to be deemed Valid? (Specific Site location, Site Control (or funds), Deposits (amounts), Technical Data, Interconnection point, Deliverability, Equipment availability, other?)

The requirement for an IC to participate in studies should be purely:

- Its deposit;
- Complete technical information on the project;
- Desired deliverability level;
- Proposed point(s) of interconnection, including alternative interconnection points; and
- Expected on-line date.

At this preliminary development stage, which is intended in part to provide developers sufficient information with which to participate in the competitive market, the CAISO should not be concerned about project viability. Requiring a large deposit and significant technical information in a very short time frame, as suggested in the CAISO Issues Identification paper, is sufficient to deter speculative projects.

Specifically, while Site Control may appear to be an appealing requirement, it is often difficult to define.[1] Furthermore, Site Control is unlikely to serve as a useful proxy for

[1] For example, CAISO interconnection staff has indicated that it will not accept a Bureau of Land Management ("BLM") ROW as evidence of land control for a project that has a COD that is three or more years beyond the date of the BLM ROW issuance because the ROW is good for an initial term of three years. However, the ROW is renewable for three additional years.

project viability. For example, a fully viable project may not have full site control prior to an evaluation of its IR, and it should not be penalized for this. Conversely, a project with site control may not be viable.

3. What alternatives could be considered if requiring Site Control is determined to be an unreasonable barrier in determining an IR valid? Should absolute site control be required for entry into the TPP considering the additional proposed financial risks if project is not completed after signing an IA?

See response to question 2. Additionally, terms such as "absolute" are difficult to define. Indeed, the application of an "absolute" site control requirement will likely fail to capture the different requirements for site control associated with various generating technologies and various kinds of property.

4. What levels of requested deliverability should be allowed and why? (Full capacity, Energy Only, % of deliverability)

We agree with the CAISO that two options (Full Capacity and Energy Only deliverability) are sufficient to meet generators' needs at this time – particularly for those in the current queue. However, more flexibility is important, and we therefore recommend that CAISO consider the option of allowing ICs to specify partial deliverability in all future queues.

5. What criteria should be considered as the ISO/PTOs group projects together for studies?

Projects that can trigger common transmission upgrades should be grouped together, based on the judgment of the CAISO engineers only, with input from PTO engineers.

6. What material modifications should be allowed and at what stages in the process?

If a requested modification would not have a material impact on the expected network upgrades or interconnection facilities, the modification should be permitted.

The following modifications should be categorically allowed after the Phase I and before Phase II study processes:

- Interconnection point so far as the project remains in the same group/sub-group;
- MW capacity, by up to the lesser of: (1) 30%; or (2) 10% of the total added transmission capacity identified in Phase I; and
- Equipment vendors or type, if electrical operation is not materially impacted**.**

The following modification should be categorically allowed after the Phase II study and before the signing of the IA:

- COD, within two years of the COD specified in the Phase II study;
- MW capacity, by up to 10%; and
- Equipment vendors or type, if electrical operation is not materially impacted**.**

The following modification should be categorically allowed after signing of the IA and before the start of TPP:

- COD, within one year of the COD specified in the IA;
- MW capacity, provided there is no material impact (based on the judgment of CAISO engineers only); and
- Equipment vendors or type, if electrical operation is not materially impacted**.**

The following modification should be allowed between the start of the TPP and the start of construction:

- COD or point of interconnection, provided the change is not material (based on the judgment of CAISO engineers only); and
- Equipment vendors or type, if electrical operation is not materially impacted**.**

7. Should the CAISO utilize an "economic test" to protect ratepayers from potentially uneconomic Network Upgrades associated with satisfying the deliverability requests of Interconnection Customers? Should there be limits to its application, i.e., renewable resources without a PPA that are located outside an Energy Resource Area?

An "economic test" should not be applied for any network upgrades that are identified as part of the TPP for the following reasons:

- It often will not be possible to separate "Delivery Upgrades" from those made for reliability, load growth, or other reasons in the TPP, since all those needs would be considered simultaneously in that process;
- It may not be possible to separate the impact of delivery upgrades for different plants in a cluster, even if delivery upgrades for the cluster as a whole could be identified;
- There are checks and balances in place to deter projects with high transmission cost responsibilities, as identified during the interconnection study process (e.g., deposit requirements will be higher, and these will be factored into the CPUC RPS process, which requires total costs, including transmission costs, to be factored into bid evaluations); and
- A process in which a project's deliverability status could be rescinded a year or more after signing the IA would be worse for generation projects than the current process. At a minimum, it would probably delay project development by at least that long (if a project were still willing to execute an IA under those conditions), because it is unlikely that a developer would continue to invest increasing sums of money when the project's primary fixed-cost revenue stream could be revoked.

8. If the interconnection process provides greater cost certainty to Interconnection Customers, the Participating TOs and ratepayers potentially take on greater risk. How should funding obligations be structured to match the appropriate allocation of risk?

Since the ratepayers ultimately pay for Network Upgrades that are actually built (unless a generator funds the upgrade and then does not come on line), this approach will not introduce

a material new risk for them. On the contrary, we believe that the determination of actual transmission upgrades (that will be directly ratebased in the TAC) through the TPP will significantly reduce the risk of overbuilding the transmission infrastructure and will better manage ratepayer risks because:

- Network Upgrades can be designed more efficiently, e.g., with staggered on-line dates and phased build-out as generation projects come on-line and other system needs (like load growth) are considered as well; and
- Significant financial commitments will be required, with security forfeited (and used to pay down the TAC) if the projects fail.

[Note: The following comments were added by the commenters.]

9. Allocation of network transmission upgrade costs

Allocation of delivery network upgrade costs among a group of projects should be based on the flow calculated on those upgrades by these projects at their selected deliverability level rather than on a pro-rata basis. This approach offers numerous benefits; for example, it would:

- Give individual projects within a group a more accurate understanding of their cost responsibility;
- Better address cost allocation of lumpy transmission additions among projects that would only use a portion of the upgrade capacity;
- Obviate the need to argue about cost re-allocation within a group if one project falls out; and
- Be just as simple as pro-rata cost allocation, through the use of generation shift factors.

Reliability network upgrades should be allocated pro-rata among a group of projects based on their size – regardless of their selected deliverability level.

10. Calculation and posting of transmission financial commitments for network upgrades

An individual project's financial commitment, based on its estimated transmission cost responsibility, is subject to forfeiture if the project does not come on line. This commitment should be mitigated because:

- Phase I and Phase II study results will only be approximate;
- Transmission build-out can be phased; and
- Upgrades will be paid for ultimately by ratepayers and are ultimately likely to serve multiple system needs.

We recommend the following formula for the transmission financial commitment to be posted by a project:

100% of transmission cost responsibility up to $1M +
50% of transmission cost responsibility beyond $1M but less than $10M +
25% of calculated cost responsibility beyond $10M
Capped at $10,000/MW

Furthermore, financial-commitment posting should be on a graduated basis starting with the IA execution and completed when the TPP for that project commences.

These proposals will, together, allow ICs of all sizes to arrange financing; moreover, they would pose no risk for the ratepayers as the full commitment will be posted by the TPP start, so the TPP would consider only projects meeting their full financial commitment. However, they are critical to ensure that the generation market develops on a competitive basis for the ultimate benefit of California and CAISO ratepayers.

Once the project begins construction, likely around the start of transmission facility construction, additional credit support could be considered.

Finally, all financial commitments posted for network upgrades (reliability or delivery) should be held by the CAISO and released to the IC once the project becomes operational. No financial commitments should be drawn upon unless the IC terminates its IA. That is, the financial commitments should serve as earnest money deposits only, with the PTOs financing actual construction. This is consistent with deferral of actual facility design to the TPP; those facilities will likely be designed to meet many needs, and the portion of an upgrade resulting from any one of those needs may be difficult or impossible to identify.

11. Firming the COD.

Once the IC, CAISO and PTOs have committed to a COD in the IA, the IC should be strongly assured that the interconnection on that date can be achieved. Specifically, if the CAISO/PTOs want to postpone the COD later due to any unforeseen event, including regulatory delays, the IC should be allowed to seek immediate appropriate remedies for its project, including delay or withdrawal of the project, without forfeiture of any of its posted transmission financial commitment(s).

If the project proceeds, it must be allowed to interconnect to the identified points of interconnection on its COD, subject temporarily to a lower deliverability level (or Energy Only) until the identified transmission upgrades are complete.

12. Number of interconnection points.

ICs should be allowed to:

- Specify, at least, a primary and an alternative interconnection point and/or voltage, with additional points/voltage allowed if the IC is willing to pay the incremental study cost; and

- Simultaneously interconnect a project directly at two interconnection points or in the middle of an existing transmission line if the MW size of the project exceeds the size threshold in the CAISO planning guide for a single point of interconnection to the system.

13. Assignment of transmission financial commitment posting

The financial commitment posting should stay with the project and not the developer. In other words, a new developer should not be asked to post an additional financial commitment for an existing project in the CAISO queue for which financial commitments were fully posted by the original developer.

14. Transitional treatment of the projects in the existing queue.

We generally agree with CAISO on transitional treatment of the projects in the current queue. However, the CAISO should provide additional flexibility for ICs that have already made substantial investments in the existing process but have not yet received final System Impact Studies. For example:

- ICs whose system impact studies are behind schedule due to no fault of their own, should not be penalized; and
- ICs that have begun their permitting process may be materially harmed if they must restart their interconnection process (as noted by the CEC at the January 25th CAISO stakeholder meeting).

Furthermore, in the interest of quickly clearing the existing queue, the CAISO should consider proposals providing incentives for ICs with pending IRs to transition to the new process. For example, as suggested by the CPUC:

- The PTOs could fund the studies for existing IRs studied under the new cluster process; and
- The PTOs could provide upfront funding for all network transmission upgrades identified through the study of existing IRs under the new cluster process.