

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 February 24, 2011 *Issue Paper 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 no later than the close of business on March 10, 2011. For the 21 topics listed below, we ask that you rank each with a score of 0, 1, 2, or 3 in the space indicated (a more detailed description of each topic is contained in the *Issue Paper* at the link, above).

- **3: For topics that are high priority and urgent.**
- **2: For topics that are high priority but not urgent.**
(i.e., topic could wait until a subsequent GIP stakeholder initiative).
- **1: For topics that have low priority.**
- **0: For topics in which “the ISO need not bother.”**

Stakeholders need not rank or comment on every topic but are encouraged to do so where they have an opinion. The ISO will assume that a stakeholder has “no opinion” on issues for which no rank is provided.

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

Introduction: CalWEA and LSA appreciate the opportunity to provide feedback on the scope of the CAISO’s Generation Interconnection Process, Phase II (GIP-2). We intend to actively participate in this process, both on behalf of our organizations generally and through our individual members with particular interests in different areas.

Though we have consolidated our comments, for both the CAISO’s convenience and our own, the CAISO should give great weight to them (relative those submitted by single entities) because they represent the general consensus opinions of 37 diverse companies with interests in all aspects of renewable-energy development.

Comments on Items listed in GIP 2 Issue Paper:

1. Develop procedures and tariff provisions for cost-benefit assessment of network upgrades.

Rank 0-3: 0

Comments:

CalWEA and LSA do not see any pressing reason for this proposal. As discussed at the stakeholder meeting, CPUC-jurisdictional buyers (the majority of CAISO-area load) already consider transmission costs in their procurement contracting; since most generation projects must have PPAs from those buyers to finance their projects, this issue is already being addressed without the need for CAISO action. Moreover, because Interconnection Customers (ICs) are required to finance transmission upgrades, except in the case where a PTO agrees to do so (see below), it is already in their interest to site at locations where transmission costs are minimized to the extent practicable.

That said, LSA and CalWEA have no objection to a reasonable test to guard against limitless interconnection-related Network Upgrades costs. However, this effort must be conducted carefully, with considerable (and likely controversial) high-level policy work before the specifics are addressed; the details must cover complicated issues like:

- ***The elements and methodology of any economic test***, including the relevant benefits and costs, the measurement of those benefits and costs, and possible consideration of future development potential in addition to the project(s)/cluster(s) under study;
- ***How the test would be coordinated with the aforementioned CPUC-regulated procurement process***, to ensure that transmission-cost factors are not double-counted;
- ***How the test would be incorporated into the Generator Interconnection Process and/or the annual Transmission Planning Process*** – e.g., it should be as early in the process as possible, before Interconnection Customers (ICs) invest any more significant efforts to develop their projects;
- ***Treatment of Interconnection Financial Security*** posted for upgrades that do not later fully pass the economic test;
- ***Residual IC ownership rights or other interests*** in facilities the ICs paid for or contributed funds toward but received partial or no refunds for; and
- ***Transitional treatment*** of projects currently in the interconnection-study process. Contrary to the suggestion of one party at the stakeholder meeting, any new policy should be implemented at the start of the next cluster process after the changes are approved, to avoid disrupting financing and other development efforts of projects in the queue.

It is unrealistic to expect that work on these details, and all the related elements, can be completed by July. Moreover, we are concerned that the overall issue is so controversial, and the scope so broad, that it will overwhelm the other, more “nuts and bolts” issues that are in the scope of this GIP Reform process.

Thus, we suggest that if the CAISO wants to consider an economic test, it should do so through a separate effort, and not through the GIP Reform process.

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)

Rank 0-3: 3

Comments:

The first group of projects whose large upgrades will be considered in the TPP (Clusters 1 and 2) is nearly to that point. The impacts on their IFS should be determined by the time that those assessments are completed, later this year. This item should also include:

- Consideration of whether ICs whose upgrades are modified as part of the TPP process should remain financially responsible for the upgrades; and
- Other scope or timing changes from Phase II Study assumptions, e.g.:
 - Clarification of cost, credit requirements, and refunds when a generator achieves COD in advance of completing all the identified Network Upgrades; and
 - Revisions of cost and credit requirements on subsequent clusters when a higher-queued project withdraws.

3. Provide additional transparency regarding Participating Transmission Owner (PTO) transmission cost estimation procedures and per-unit upgrade cost estimates.

Rank 0-3: 3

Comments:

There are many issues that must be addressed here, including:

- Lack of completeness, where some PTOs do not provide costs for equipment at some voltages.
- Inconsistencies between PTO costs for the same equipment, including widely different starting points and inconsistent “multipliers” for various factors.
- Inconsistent formats, which make it extremely difficult or impossible to make ready comparisons between PTO costs.
- Inconsistent and unreasonable adjustments to the starting per-unit costs. For example, SCE and SDG&E start with what appear to be conservative assumptions, multiply them by as much as three for factors like terrain, add a 35% contingency, and then (in the case of SCE) add a 10% “agent’s fee” on top of that. Part of the problem is the conflict between the CAISO tariff, which requires PTOs to post “anticipated” costs, and the SCE/SDG&E approach, which they characterize as a “not-to-exceed” approach.

This process produces PTO per-unit cost estimates that are so ridiculously inflated that they fail to provide accurate or effective cost caps. They exceed, sometimes by orders of magnitude, costs for the same equipment in other jurisdictions.

To date, there has been no virtually no CAISO oversight, i.e., guidance on methodology or validation of the results. The CAISO, not each individual PTO, should set the standard for the per-unit cost development. This includes the intent of the numbers, for example, whether the numbers are upper bounds, “not-to-exceed” numbers or typical, expected numbers. The current tariff states “anticipated costs, which should be a defined term.

4. Clarify applicability of GIP for a generator connecting to a non-PTO that is inside the ISO Balancing Area Authority (BAA) and wants to have full capacity deliverability status.

Rank 0-3: 3

Comments:

It is necessary to develop a straightforward and consistent solution now across all non-PTOs inside the CAISO BAA, as the issue is needlessly hindering the development of in-state resources.

5. Explore potential modifications to the triggers that establish the deadlines for IC financial security postings.

Rank 0-3: 3

Comments:

This issue has already caused several instances of litigation at FERC and has been a continuous source of problems with virtually every round of IFS postings. Specifically, the CAISO and stakeholders should examine the Second IFS Posting deadline through this effort, as well as the definition of the “final” study that triggers the Initial and Second postings.

- **Coordination of second posting, Phase II Study, & GIA:** Consider one or both of the following, because of possible differences between Phase II Study results and GIA terms:
 - Basing the Second IFS Posting deadline on GIA execution, instead of Phase II study issuance; and/or
 - Clarifying that the second posting bases and amounts would be adjusted for differences between Phase II Study results and the terms in the executed GIA, if the posting was due before the GIA was executed or the parties have already agreed on changes from the study. Material financial information is sometimes shared within the GIA process, rather than through Phase II Study updates.
- **“Final” studies & IFS posting deadlines:** Determine when a study is actually final, i.e., CAISO issues “final” studies, and posting deadlines aren’t adjusted even if studies are revised later (so ICs have less than the intended time to make posting decision and arrangements). This issue should include the both the Initial and Second Postings, and consider all changes that would impact IC cost responsibility (not just the small subset in the CAISO proposal for the Second Posting). Some relevant observations:
 - “Final reports have included errors and scope problems; these issues are sometimes not resolved in a timely manner.

- ICs need sufficient time after issuance of a **real** final study report – with all errors and scope problems resolved – before the associated security posting is due, so they can act on the information in the report (e.g. reach agreement on a PPA).
- A cost reduction in a modified study report can be as significant as a cost increase when the reduction allows the project to remain viable.

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

Rank 0-3: 3

Comments:

These clarifications are needed this year, as the Transition Cluster projects are completing GIAs and construction may start this year on at least some upgrades to serve them; moreover, the timing of such postings could influence a decision on whether or not to proceed with the Second IFS Posting. This item should include the following:

- **“Start of Construction” clarification:** Whether this includes design/permitting or other pre-construction activities, or only “turning shovels of dirt.” Specifically, ICs should not be required to post substantial security to cover actual construction costs of an upgrade project (above the much lower costs of permitting/licensing and related activities) until activities associated with that construction (e.g., equipment procurement or site grading) begins.
- **Third posting phasing:** Phasing of third Interconnection Financial Security (IFS

7. Clarify ISO information provision to assist ICs.

Rank 0-3: 2

Comments:

We support the tentative proposal to post the non-confidential portions of interconnection cluster studies, and the CAISO should also include the data and analyses supporting those reports. In addition, the CAISO should provide transmission circuit maps to assist developers, which are readily provided by some utilities. However, this is not an urgent issue.

8. Consider partial capacity as an interconnection deliverability status option.

Rank 0-3: 2 (but see comments below on other high-priority partial-deliverability issues)

Comments:

“**Option 1**” (limiting partial deliverability acquisition to the annual CAISO deliverability study, outside the regular interconnection-study process) is already available. While this might prove to be a useful tool, it does not address the issues related to partial deliverability through interconnection studies.

Option 2 (partial-deliverability election before Phase II Study) is the best of the CAISO-provided options, since the IC will have at least some basis for making that election. However, the CAISO and PTOs must provide more information in interconnection studies about potential deliverability without certain Delivery Network Upgrades, or combinations of upgrades.

The IC should have the option to either scale back the project to the deliverable amount or phase it to fit the estimated deliverability timeline, can be the deciding factor for successfully concluding PPA negotiations. GIP-2 should include discussion about whether these changes are best made after the Phase I Study, after it is broadly known which projects are moving to Phase II, or after the Phase II Study.

Option 3 (partial deliverability election with Interconnection Request submission) does not make much sense, since: (1) most ICs would prefer full deliverability; and (2) they would not yet have any basis to elect anything else before receiving the results of any interconnection studies.

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

Rank 0-3: 2

Comments:

While this is an important element, it is ranked here as a second-tier priority because the CAISO is apparently allowing termination of later project phases on a case-by-case basis. However, it does make sense to formalize the policy, and a few recommendations are given below.

- The CAISO's definition of this proposal – to allow partial termination only where projects are defined up-front as phased – is too restrictive. This option should also apply where a project is downsized, e.g., for environmental/permitting or other reasons beyond the IC's control. We recognize that basing this kind of adjustment on external factors, like limitations in permits, might be needed to avoid IC oversizing of projects that “hog” capacity. (If the CAISO does not allow the issue of size adjustments for non-phased projects to be included in the scope of this effort, we recommend that it be addressed as a separate issue – see “Other Topics” below.)
- There should be a way for the IC to receive refunds for the remaining Network Upgrade costs if the facilities funded are later used by other generation projects or loads. (This is one of the prominent features of the latest MISO transmission cost allocation process under their GIP reform.)

10. Provide for partial repayment of IC funding of network upgrades upon completion and commercial operation of each phase of a phased project.

Rank 0-3: 3

Comments:

The transmission constructed for each phase is “used and useful” when that phase comes on-line, so repayments should begin at those times as well.

It would be efficient to merge topics 9 and 10 together into a single topic. That consolidated topic should include cost and performance requirements to maintain a queue position, or other incentives for ICs to downsize their projects as soon as completion becomes non-viable, so any capacity/deliverability not needed by those projects can be “freed up” for use by others.

11. Applying Section 25 of the tariff to conversions of grandfathered generating units to compliance with ISO tariff.

Rank 0-3: 0

Comments:

The CAISO’s proposals in this area should be addressed as needed, but this can be done through existing mechanisms. In general:

- The CAISO procedures for QF conversions to a commercial (PGA) arrangement – i.e., avoidance of interconnection studies with an affidavit stating that there will be no operating change from the conversion – are clear and should continue. Changes should be measured from the current operating state of the unit, to avoid the need to search for years-old original studies; if those changes are “material” under the GIP, then they should also be allowed without use of the GIP process. If the modification is material, it should be assessed through the regular GIP process.
- Repowerings should be treated as Material Modification requests under the GIA, just like other technology changes. If the modification is not material, using the same criteria that the CAISO and PTOs use to assess other modification proposals, it can be accomplished by modifying the existing GIA. If the modification is material, it should be assessed through the regular GIP process.

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

Rank 0-3: 2

Comments:

The CAISO should continually update its tariff to reflect changes in federal policies.

13. Specify appropriate security posting requirements where the PTO elects to upfront fund network upgrades.

Rank 0-3: 3

Comments:

The CAISO should either clarify that the current tariff does not require IFS from ICs under those circumstances (our position), or change the tariff to ensure that result if it thinks that the tariff is not already clear. There is no reason for ICs to post security for upgrades that they are not funding, because there is no recovery risk to the PTO; the PTO agreement to finance, and the cost-effectiveness and exploration of alternatives that are required for approval of the project by regulatory bodies, ensures that ultimate costs to ratepayers will be reasonable even without this additional supplier “skin in the game.”

However, it would be reasonable to require projects in this situation to meet some milestones in order to remain in the queue, or to consider other measures to prevent them from “taking up space” that could be used by others. This is similar to the approach taken by some PTOs currently through non-conforming LGIAs when they agree to finance Network Upgrades; we would like discuss standardization of this approach through incorporation into the GIP and the pro forma GIA.

14. Revise ISO insurance requirements (downward) in the pro forma Large Generation Interconnection Agreement (LGIA) to better reflect ISO’s role in and potential impacts on the three-party LGIA.

Rank 0-3: 1

Comments:

This seems like a reasonable change, but not an urgent one. However, if insurance issues are addressed in this process, that should include reconsideration of some LGIA IC insurance requirements that cannot be met through readily available commercial insurance products. We also agree with Wellhead Energy that insurance requirements should be timed appropriately to the provisions and need of insurance, i.e., at the start of construction, and then again at the beginning of parallel operation.

15. Clarify posting requirements for an IC that is already in operation and is applying only to increase its MW capacity.

Rank 0-3: 0

Comments:

There is no apparent reason to treat an increase to an existing plant different from a new plant of the same size. The up-front financing requirements that generally serve to limit interconnection-related transmission activities and related costs should apply to these projects; without any “skin in the game” or PTO agreement to finance (see #13 above), there is no assurance that only reasonable Network Upgrade facilities will be constructed.

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

Rank 0-3: 1

Comments:

PTO practices should be standardized, so that all PTOs use the same conventions and the cost estimates in the interconnection studies and GIAs are consistent. Generally, GIA and Phase II Study Report estimates should be in “as-spent” dollars – otherwise, the IC and its financiers will not have a clear understanding of the amounts owed, and it leaves the IC exposed to unanticipated and arbitrary cost increases. However, this is not a high-priority need relative to others, and we are not sure that it would require a tariff change.

17. Clarify how GIP applies to storage facilities and behind-the-meter expansion of existing facilities.

Rank 0-3: 2

Comments:

The CAISO should consider these issues, which are high-priority but not urgent, and we offer the following comments:

- ***Storage interconnection:*** Interconnection studies should consider whether longer-duration (multi-hour) storage resources can substitute for transmission, on a transitional or longer-term basis. For example, that type of storage could be used to reduce transmission requirements in areas where generation development is heavily weighted toward one technology (e.g., wind or solar) where most units would be peaking simultaneously.
- ***“Behind the meter” generation additions:*** The CAISO should consider whether such additions using a complementary technology (e.g., adding wind to solar, solar to wind, or storage to either) could or should be accomplished outside the regular queue study process, and the issue of technology changes generally.

18. Conform technical requirements for small and large generators to a single standard, and develop study methodology to determine voltage impacts pursuant to FERC’s 2010 order on ISO’s proposed new interconnection standards.

Rank 0-3: 1

Comments:

While we agree that the standards should generally be the same for small and large generators, the process should recognize that there may be technical reasons for differences. For example, small distribution connected projects are required to meet IEEE 1547, which is reasonable so that many small generators are not trying to regulate the voltage on a distribution circuit that is already regulated; otherwise, the regulation devices can lose coordination and may begin fighting each other.

We note that the CAISO still has a separate pro forma Small Generator Interconnection Agreement (SGIA). Several SGIA requirements are ambiguous and should be reviewed. For CAISO-interconnected projects, the CAISO tariff should have precedence over the PTO Generator Interconnection Handbook where there are inconsistencies between the two; updating the SGIA could be used to help eliminate overlaps or inconsistencies.

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

Rank 0-3: 3

Comments:

The Full Capacity interconnection requirements should be geared toward those matching the RA deliverability rules, which currently are based on on-peak production for VERs. Thus, mandatory funding of off-peak Delivery Network Upgrades could inflate the cost to meet LSE RA requirements and should not be required for new generation to qualify as Full Capacity.

However, LSA and CalWEA do not support the CAISO's proposal to eliminate the off-peak deliverability assessment. Especially in areas where either wind or solar are predominant (the majority of the identified high-potential renewable-energy development areas), congestion in off-peak hours (nighttime for wind, weekend afternoons for solar) might significantly limit the energy that can be delivered out of that area.

The CAISO should continue to provide off-peak deliverability assessments, though it should reconsider the unrealistically conservative assumptions currently used for those analyses. Generators in such clusters where upgrades are needed to provide that deliverability should be allowed to collectively decide whether or not to finance these upgrades in the interconnection process.

20. Include operational impacts in assessing generation interconnection impacts.

Rank 0-3: 0

Comments:

These impacts are satisfactorily addressed through other CAISO studies and market activities.

21. Revise provisions for transferring queue position to a new IC.

Rank 0-3: 1

Comments:

The CAISO's policies here are already well-defined. However, we would like to discuss the possibility of revisions in the tariff for transfer.

Other Comments:

- 1. Are the five workgroups and their topic areas organized properly?**
- 2. Are there other topics that you believe should be considered for the scope of GIP 2?**

Yes – these proposed additions are summarized below. We considered these additions carefully and therefore recommend all as Rank 3. We have grouped these issues using the CAISO’s proposed workgroup categories.

Group 1

ISSUE	PROBLEM	POTENTIAL SOLUTION
Cost allocation methodology	Allocation of entire Network Upgrade (NU) cost, vs. only the “needed” portion Allocation of NU costs based on flow after an upgrade, vs. to the project(s) that trigger it Other cost-allocation study issues, like assumed output profiles for on- and off-peak assessments	Consider cost-allocation changes in GIP-2
Draft Phase II Study	Lack of input or ability to refine/correct Phase II Study results before study is “final”	Issue study in draft and give ICs the opportunity to comment
IC Option to Build	Unclear which parts of project development (e.g., telecommunications solutions) ICs can assume	Explicitly delineate this information in interconnection studies

Group 3

ISSUE	PROBLEM	POTENTIAL SOLUTION
Modification of project size due to permit or other restrictions	CAISO position that any size modification that is “material” or fails to meet concept of substantial completion will result in GIA termination	Allow for flexibility in project size for certain conditions

Group 4

ISSUE	PROBLEM	POTENTIAL SOLUTION
IFS cap for Interconnection Facilities (IFs)	Insufficient consideration in Phase I of: - LCRIF potential - Alternatives for IF (rights of way, etc)	IFS cap for IFs, for First IFS Posting
Queue-clearing procedures	Potentially non-viable projects remaining in the queue but failing to progress	Procedures to remove such projects or require additional proof of viability (e.g., additional IFS)
IFS release & Study Deposit refunds for unilateral POI change	CAISO/PTO can change Point of Interconnection unilaterally in a manner that is unacceptable to the IC	IC should receive full IFS release and refunds of any unused Study Deposits
IFS release & Study Deposit refunds for PTO failure to build NUs	PTO may fail to build Network Upgrades needed for generator interconnection and operation, e.g., due to failure to obtain necessary permits or other regulatory approvals	IC should receive full IFS release and refunds of any unused Study Deposits
IFS posting invoices	There is often confusion about the precise IFS posting amounts, and that is sometimes not clarified until just before the due date	The CAISO/PTO should issue invoices with the amount of security due, within 30 days of a final interconnection study report

Group 5 (early deliverability-related assessments needed to support PPA negotiations)

ISSUE	PROBLEM	POTENTIAL SOLUTION
Deliverability vs. CODs	Projects coming on-line before Delivery NUs (DNU) are complete and before earlier-queued projects that have Full Capacity (FC) status	Include early assessment to allow later-queued projects to temporarily use deliverability "assigned" to earlier-queued projects before the latter become operational
Temporary Partial Deliverability	Projects coming on-line before Delivery NUs are complete	Include early assessment to allow those projects to get partial deliverability until DNUs are complete

3. If you have other comments, please provide them here.