

Stakeholder Comments Template

| Submitted by | Company | Date Submitted |
|---|------------------------|----------------|
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Please use this template to provide your written comments on the 2018 IPE stakeholder initiative Revised Straw Proposal posted on July 10, 2018.

Submit comments to InitiativeComments@CAISO.com

Comments are due July 31, 2018 by 5:00pm

The straw proposal posted on July 10, 2018 and the presentation discussed during the July 17, 2018 stakeholder meeting can be found on the CAISO webpage at the following link:
<http://www.caiso.com/informed/Pages/StakeholderProcesses/InterconnectionProcessEnhancements.aspx>

Please use this template to provide your written comments on the Issue Paper topics listed below and any additional comments you wish to provide. The numbering is based on the sections in the Issue Paper for convenience.

4. Deliverability

4.1, 4.2, 4.3, 4.5 and 9.2 Transmission Plan Deliverability Allocation (combined topics)

a. Allocation Ranking Groups (one through seven)

The Proposal acknowledges stakeholder comments that a project is unlikely to execute a PPA requiring FCDS, and thus commit significant development security, without assurance that the project will get TPD. It states that “CAISO believes that there may be opportunity to improve coordination between the LSE procurement processes and timing and the CAISO queue cluster study process” and seeks input on “how to initiate and establish such coordination.”

CAISO also asks these specific questions:

- If a project is determined to be least cost/best fit for a LSE, would developers and/or LSEs be willing to execute a PPA contingent on receiving TPD? (CAISO points out that none of the allocation groups (even Group 1) has a guarantee of obtaining a TPD allocation.)
- If not, should Groups 4 and/or 5 be eliminated from the proposed allocation groups?

EDF-R response: As the CAISO recognizes, most developers would not be willing to execute a PPA requiring FCDS, and then commit significant development security, without assurance that the project would receive a TPD allocation. (While even Group 1 might not get FCDS, it would be much more likely to do so, since it can at least trigger (and pay for) LDNUs needed for FCDS.)

The problem is that, to date, virtually all PPAs either require FCDS or are Energy Only, i.e., this is usually a binary choice. However, developers might be willing to execute agreements with “contingent” FCDS provisions (i.e., with different prices applicable to the degree that the project does not receive full deliverability, without a cancellation right if deliverability is not obtained), if LSEs would offer such agreements. This construct would effectively decouple Resource Adequacy and deliverability within the same contract, and it would help ensure that the PPA would not be lost if deliverability was ultimately not available through Group 4-5 designations.

To encourage such flexible arrangements, the CAISO should retain Groups 4-5, but revise the criteria to include PPAs with contingent FCDS provisions, instead of specifying that the PPAs must “require” FCDS. EDF-R agrees with the CAISO’s intent in offering these groups, and this revision would make Groups 4-5 much more viable.

b. Specific Topics:

i. Overall TPD Allocation Process:

EDF-R supports the CAISO’s general TPD allocation structure (with the recommended revisions to Groups 4-5), including the elimination of the Annual Full Capacity Deliverability (AFCD) option in favor of Groups 4-7 of the allocation process. However, as noted below, EDF-R believes that the CAISO should still allow generation projects to re-enter the queue to obtain deliverability on the same basis as new generation projects.

ii. Elimination of Balance sheet financing terminology:

EDF-R strongly supports elimination of the BSF affidavit, for TPD allocation and TPD retention (including Commercial Viability Criteria (CVC) compliance for TPD retention). EDF-R believes that few or no commercial developers would construct a project without a PPA, and this option has been used to obtain and retain valuable TPD by non-viable projects. The restrictive Allocation Group 3 is a more reasonable substitute.

Of course, the associated terminology should also be eliminated.

iii. Elimination of Annual Full Capacity Deliverability Option

The Revised Proposal would eliminate the AFCD option, but the proposed substitutes in the Proposal would not address the main problems with that option – access only to “leftover” RA deliverability, i.e., the inability to trigger and pay for DNUs on the same basis as new projects, to help assure FCDS. Specifically, projects Groups 4-7 (touted as the replacement for this option) should be allowed to re-enter the queue for deliverability. (See additional discussion below.)

iv. **Energy only projects’ ability to re-enter the CAISO Queue for Full Capacity**

The Proposal recognizes stakeholder desire for this option but proposes to defer consideration in view of the uncertainties listed below.

- **ELCC impact:** This Qualifying Capacity methodology change might allow more generating capacity to obtain deliverability with the current capacity.
- **CPUC procurement planning proceeding:** The CPUC may issue additional guidance that will reduce the proportion of jurisdictional Load-Serving Entity (LSE) supply portfolios that must have deliverability.

These issues are legitimate but should not prevent the CAISO from implementing a queue re-entry option in the next cluster-study window, in April 2019.

CAISO has committed to presenting ELCC study information this fall in the Transmission Planning Process (TPP), so it will be available before the window opens. If (as is widely expected) ELCC results in fewer upgrades triggered because the existing system can accommodate more deliverability, then there would be few costs to awarding that additional deliverability to queue re-entries.

To the extent that developers apply for more deliverability at first than required to meet LSE procurement needs, and potentially trigger upgrades that ultimately are not needed, that will be a self-correcting process over time. If the CPUC issues guidance that includes purchase of more EO projects, then as LSEs contract to meet their needs, any unnecessary or costly DNUs would be dropped as re-entry projects triggering them convert back to EO to avoid the extra cost (e.g., using the additional conversion timing flexibility the CAISO is offering in this initiative).

v. **Commercial Viability Criteria (PPA Clarification)**

As noted above, EDF-R supports the CAISO’s proposal to eliminate use of BSF affidavits for compliance with Support proposal to eliminate BSF affidavit to demonstrate CVC compliance.

EDF-R also opposes the CAISO’s intent to “grandfather” projects that used BSF affidavits to demonstrate CVC compliance when their CODs were extended beyond the 7/10 year development deadline, i.e., to allow such projects to continue using BSF affidavits to pass annual CVC compliance checks. After a reasonable transition period (e.g., 1 year), those projects should be subject to the same PPA requirement as others for annual CVC compliance demonstrations, i.e., they should demonstrate that they have PPAs to cover their capacity.

4.4 Change in Deliverability Status to Energy Only

EDF-R agrees that generation projects should be allowed to convert to Energy Only at any time. However, the proposal should be modified if the CAISO wants to keep such projects responsible for the cost of DNUs still needed may be justified.

Specifically, projects selecting this option should not risk ending up with “the worst of both worlds” – EO status but DNU funding obligations – especially if CAISO cannot provide a

preliminary assessment of the likelihood that significant DNU obligations would remain. Interconnection Customers (ICs) should not have to guess the outcome of the CAISO’s analysis; otherwise, the risks of this “option” to ICs would largely negate its benefits.

Instead, the CAISO should assume that projects wanting to convert to EO would wish to retain their deliverability status and withdraw the EO conversion request if significant DNUs are found to still be needed. This assumption would require one additional pass in the Reassessment studies. If removing a project’s EO conversion results in retention of significant DNUs (e.g., above a dollar threshold), the deliverability assessment would be re-run with project deliverability restored. EDF-R understands that this change would add to the already complex CAISO studies, but it is the only way to avoid an unreasonable outcome.

4.6 Options to “Transfer” Deliverability

EDF-R supports allowing deliverability transfers between different portions of a project; this option should be available for transfers behind a given POI, with one addition.

This flexibility should also include deliverability transfers between projects behind the same POI that are owned by unrelated. This would be fair and logical, since generation-project ownership does not affect potential grid impact of deliverability transfers.

5. Energy Storage

5.2 Replacing Entire Existing Generator Facilities with Storage

As long as any required mitigation is covered, projects should be allowed complete replacement with energy storage through: (1) Repowering with storage replacement capacity; (2) conversion of capacity through the MMA process; and (3) addition of energy storage and then retirement of the original capacity.

6. Generator Interconnection Agreements

6.1 Suspension Notice

Option 2 – Support: Projects should not be allowed to suspend unless they meet CVC, i.e., suspension should not be allowed to be used as a delay tactic for non-viable projects. Likewise, suspension should require CAISO approval, i.e., projects seeking suspension should not be allowed to impose adverse impacts on later-queued projects.

6.2 Affected Participating Transmission Owner

EDF-R strongly supports use of a single, four-party GIA between the CAISO, the Affected PTOs, and the IC, not negotiation of separate GIAs with each PTO. It is unfair to impose double negotiation/compliance obligations and costs on the IC, and to expect the IC to reconcile differences between the PTOs.

This is especially true because the CAISO does not impose uniform format and content requirements on the GIA Appendices, which include the significant details specific to each project. Common GIA Appendix formats would help ameliorate complications and other

problems with the separate agreements, but the CAISO has been unwilling to impose such consistency to date.

6.4 Ride-through Requirements for Inverter based Generation

No comments.

7. Interconnection Financial Security and Cost Responsibility

Response to general question asked by the CAISO in the proposal – criteria for PTO

funding of NUs: The Revised Straw Proposal says CAISO is sympathetic to PTO complaints that GIA execution does not mean a project is proceeding, and that some other measure – e.g., financial-security postings – should determine when a PTO must fund a NU if a project then drops out.

EDF-R disagrees, because: (1) PTOs have not demonstrated that this requirement is an undue burden; and (2) projects must have made at least the first posting, and typically the second also, by the time a GIA is executed. Thus, while there may not be 100% coverage for each NU that is still required:

- **PTOs have not demonstrated that this requirement is an undue burden.** For example, no information was provided about how often PTOs must fund such upgrades (i.e., the dropout occurs after GIA execution and the upgrade(s) are still needed) or the cost impact of such situations.
- **Significant financial-security postings are already made by GIA execution.** Projects executing a GIA must have made at least the first posting and typically have made the second also. While there may not be 100% coverage for each NU that is still needed, the resulting forfeits (of the postings for NUs still required, and also those made for NUs no longer required) should still offer meaningful protection and financing mitigation, and they could even exceed 100% protection for NUs still needed.

EDF-R understands that PTOs may not retain all the financial security forfeited under current rules and has no objection to modification of forfeiture provisions to allow the interconnecting PTO to retain all forfeited amounts. (This change might also help with SANU issues below).

7.1 Maximum Cost Responsibility for NUs and Potential NUs

EDF-R has serious concerns about CAISO’s proposals in this area, regarding both process and substance.

With respect to the process, the CAISO’s proposals in this area – e.g., definitions – were modified significantly in the stakeholder meeting presentation from the Revised Straw Proposal, and many aspects have no more details available beyond the meeting slides. Clearly, this topic is not yet at the “draft final proposal” stage, and EDF-R strongly recommends delaying final consideration of this topic to Track 3 (November consideration by CAISO Board).

EDF-R also has fundamental concerns about the content of the CAISO’s proposals. These proposals seem to reflect an attitude that it doesn’t matter how large “potential” obligations can be as long as the IC knows about them in advance. This premise is false.

Specifically, the very important “cost certainty” objective of the GIP/GIDAP cluster-study framework is not met by the CAISO’s proposals here. A new generation project with a reasonable assigned cost responsibility but an astronomical “maximum” cost responsibility (which could well result from the many proposed additions to the latter in the CAISO’s proposal) is hardly more viable than a project with an astronomical assigned cost responsibility.

In addition, EDF-R strongly believes that: (1) cost allocation, maximum-cost impacts, and financial-security postings should never exceed 100% of the cost of an upgrade in total, or the proportional share of those costs for each project; and (2) cost impacts for upgrades covered under an executed GIA should never be imposed on later-queued projects, in a direct cost allocation or maximum-cost increases. EDF-R opposes many of the CAISO’s proposals here because they are inconsistent with these principles.

The current tariff provides states that MCR consists of what the CAISO now calls “Direct Network Upgrades” (Direct NUs) – the lower of Phase I or Phase II NU costs allocated to a generation project in its own cluster.

The CAISO has recently added “Potential Network Upgrades” (PNUs) (now called “Contingent Network Upgrades” (CNU)) – those assigned to earlier-queued clusters where there is no executed GIA) to the MCR, though there is no provision in the tariff allowing that. The MCR PNU/CNU increase for each project in the current cluster has been the share it would have been allocated if the upgrade were allocated to its cluster.

In addition to Direct NUs and CNU, the CAISO is now proposing to add several additional items, described below, to what it now calls “Maximum Cost Exposure” (MCE). These additions represent significant departures from past GIP/GIDAP principles and are internally inconsistent

- **100% of SANU costs:** The proposal would add 100% of SANU costs: (1) Even where there is an executed GIA; and (2) even when the upgrade cost responsibility is shared with other projects in the cluster. LSA opposes this proposal, both because of the inter-cluster impacts when a GIA has already been executed and because the cost allocation and MCR/MCE would exceed 100% of the cost of the upgrade.

CAISO justifies this proposal by noting that SANUs typically would be needed even if all projects in the current cluster drop out. However, that could be true for other NUs as well, and LSA opposes this different treatment of SANUs.

- **100% of each CNU:** This is the most onerous proposal in the IPE package and could prematurely derail otherwise viable projects. It is also inconsistent with the CAISO’s current Direct NU and CNU allocation policies.

First, it is inconsistent (and worse than) the allocation process within a cluster. The MCR/MCE for each project for Direct NUs (assigned directly to a cluster) includes only the share allocated to that project. In other words, the CAISO does not allocate 100% of the cost

of each upgrade for that cluster to each project in order to “leave room” for cost reassignment if others drop out.

Second, that has also been the CAISO’s approach in the past for PNUs/CNUs – i.e., CAISO allocates the contingent cost responsibility for MCR purposes as if the upgrade was assigned to the current cluster, i.e., each project has a share of the PNUs/CNUs added to its MCR to “leave room” in case all projects in the prior cluster drop out and the upgrade is still needed.

The new proposal, however, would increase the MCR/MCE by 100% of the cost of each upgrade for each project in the current cluster. In other words, the MCR/MCE increment for CNUs could be far higher than each project’s cost share if the CNU becomes a Direct NU.

The CAISO’s proposal provides no basis for revising the current MCR/MCE treatment for PNUs/CNUs. EDF-R disagrees with including CNUs in the MCR/MCE at all, but if the CAISO retains that policy, it should continue its policy of adjusting MCE for contingent upgrades using the same cost share as if the upgrade was a Direct NU (originally assigned to its cluster), i.e., its allocated cost if the upgrade falls to its cluster. As noted above, MCR/MCE impacts should not total more than 100% cost of an upgrade.

- **Costs for “Precursor” RNUs (PRNUs here) even where there is an executed GIA:** This proposal (see below) is intended to limit reimbursement for each project to \$60K/MW. (See additional comments on this issue below.) However, to address this limited issue, the CAISO proposes to allow inter-cluster transfers of upgrade cost and cost impacts when a GIA has already been executed.

The CAISO couches these complex proposals in terms of fairness to ratepayers, but (as explained further below) they have not been demonstrated to be necessary and go far beyond what is needed to address this simple and straightforward issue.

The above three issues are so serious that, in addition to moving this proposal to Track 3, EDF-R urges the CAISO to perform limited back-casting on a recent study cluster – e.g., Cluster 9 or 10 – to determine the MCE/MCR increase that could occur with implementation of these policies before issuing its next proposal version, and to share the results with stakeholders.

7.3 Eliminate Conditions for Partial IFS Recovery Upon Withdrawal

EDF-R supports the CAISO’s proposal.

7.5 Shared SANU and SANU Posting Criteria Issues

EDF-R has the comments described below on the CAISO’s proposals in this area.

- **The proposals confuse “Plan of Service” (POS) upgrades (not defined, but generally considered to be those where 100% of costs are assigned to a specific project) and SANUs.** SANUs may be POS upgrades and vice versa, but the issues with each are different, and the CAISO should clarify its proposals with respect to each.
- **SANUs can be shared.** EDF-R agrees with the CAISO’s statements on that subject and appreciates the CAISO’s clarification on this point.
- EDF-R disagrees with including 100% of SANU costs for each generation project in Direct NUs, financial security postings, or in MCE/MCR, as described above. Combined

postings for shared SANUs (or any other upgrades) should never exceed 100% of costs, i.e., it would be unreasonable to require 200%, 300%, or more security coverage for a single upgrade.

If projects drop out and reallocation is allowed to later-queued projects, then security postings can be revised accordingly. Other upgrades may still be needed if one or more projects drop out, and the fact that this is more common for SANUs (or POS upgrades, if this policy is intended to apply there also) does not change the fundamental principle.

The CAISO asks specifically about allowing PTOs to determine posting amounts for shared SANUs.

EDF-R strongly opposes this proposal, for the following reasons:

- The CAISO should not abdicate this important issue (especially without any criteria or guidance), since SANU costs can be a significant part of a project's cost responsibility.
- There is no apparent justification differing PTO policies here, i.e., there should be uniform SANU policies on MCE/MCR, allocation, and security posting.
- There is no justification for requiring 200%, 300%, or more security coverage for a single upgrade. If projects drop out and reallocation is allowed to other projects, then security postings can be revised accordingly.

7.7 Reliability Network Upgrade Reimbursement Cap

CAISO has offered three options, described below. These options are not fully explained and require additional discussion, and LSE urges the CAISO to defer consideration of this issue to Track 3 (November consideration by CAISO Board). For example, it is not clear which proposals would allocate costs in executed GIAs to later-queued projects, vs. just limiting RNU cost reimbursement to \$60K per MW.

There are several clear problems with the substance of the CAISO's proposals in this area.

First, this may be a solution in search of a problem, i.e., the CAISO has not demonstrated that there is a real problem here that must be resolved. If the CAISO goes forward with this proposal, at a minimum, it should provide information about the frequency or cost of the problems identified in the Revised Straw Proposal, any evidence of gaming or other questionable behavior related to the reimbursement limit, and evidence of actual harm to PTOs or ratepayers.

To EDF-R's knowledge, exceedance of the \$60K/MW threshold is relatively rare; dropouts of projects exceeding that limit that have already executed GIAs would be even rarer. Significant rule changes should not be considered for infrequent problems with low overall cost impacts.

Second, the Revised Straw Proposal says (pp. 46-47) that limiting RNU reimbursement to \$60K/MW "...is a principle that overrides any cost protection principles for interconnection customers and PTOs." The basis designating this the "overriding" principle is not explained, compared to other factors, e.g., larger goals like RPS attainment.

Third, the continued reasonableness of the \$60K/MW limit is questionable. That limit was established back in 2012 based on a percentage of RNU costs for Clusters 1-2. As the PTOs' Per-Unit Costs have demonstrated, PTO construction costs have increased rapidly over the last few years; applying a 4-5% annual escalation factor to the limit would probably raise it to the \$80K/MW range by now, and examination of actual costs for later clusters might raise that figure further. Fundamental changes in treatment of above-limit costs should not be made in any case until those limits are updated, and updates should be considered aside from any such rule changes.

Fourth, the proposals would consider the entire cost of the subject upgrades, not just the amount that could be over the reimbursement limit and (as noted above) not just the amount not already covered by security forfeits (including forfeits for upgrades no longer needed). Any allowed inter-cluster impacts should only cover the “excess” amount that is not already paid for through forfeits.

Finally, all three options appear to far exceed the action needed for the limited purpose of ensuring that the \$60K/MW limit is not exceeded. If adding these “Precursor RNUs” (PRNUs) to the Direct Assignment RNUs would not cause later-queued project to exceed \$60K/MW, then there is no problem, and no further adjustment (to either cost assignment or MCE) is needed. If inter-cluster impacts are allowed, and if adding PRNUs would cause the later-queued project to exceed \$60K/MW, then the CAISO's solutions need only consider the excess amount.

The PTO should still be responsible for funding the PRNU, since the upgrade was included in earlier-queued project GIAs, and only reimbursement of the “excess” amount should be addressed in the CAISO's solutions. Solutions that include adding the full PRNU cost to either the MCE or directly assigned costs go far beyond what is needed for the limited purpose of limiting RNU reimbursements (and LSA opposes them as well because they would result in allocating impacts for more than 100% of the cost of an upgrade, as explained above).

For these reasons, EDF-R opposes all three options as described in the Revised Straw Proposal; additional reasons specific to each option are described below.

- **Option 1:** 100% of any PRNU costs in the Phase I study included in the MCE. If more than one project needs the same precursor RNU, each project would have 100% of that precursor RNU's cost included in their MCE.

As explained above, EDF-R objects to including any costs for earlier-queue upgrade assignments where a GIA is executed in the MCE, and particularly inclusion of 100% of each upgrade cost.

- **Option 2:** Document any PRNU cost in earlier-queued GIAs but re-calculate RNU costs for later projects needing that upgrade if the earlier project drops out.

This may be (subject to clarification of the details) the least objectionable of the three options, but it is still problematic because the PRNU cost is already covered by an executed GIA.

Also, the basis for the CAISO’s statement that this option would “not fully provide information on the amount of an interconnection customer’s IFS posting at risk of being non-refundable until late in the process.” Certainly, the CAISO could mention and quantify this risk in Interconnection Studies and GIAs without actually adjusting either MCE or assigned costs.

- **Option 3:** Proportional cost of any PRNU cost in the Phase I Study included in the MCE (could be 100%, or less if multiple projects need the RNU). Projects could have MCE increase if other same-cluster projects withdraw.

This option needs more explanation. It is potentially the most objectionable of the three, if the intent is that later-queued would both have PRNUs included in their MCEs and also actually have to fund the full cost of these upgrades.

Moreover, if only a proportional amount of the PRNU cost would be included in the MCE, but the MCE could be increased if other projects drop out, then the impact is the same as including 100% of the PRNU costs in the MCE. An MCE that can increase later is not really a “maximum” cost exposure at all and, therefore, is no less objectionable than an MCE increase itself.

8. Interconnection Request

8.4 Project Name Publication

EDF-R does not oppose this proposal but does not understand how it would increase “transparency.” Developers seeking to keep project information confidential can simply select project names that are generic enough to provide no information to others.

9. Modifications

9.1 Timing of Technology Changes

EDF-R agrees that technology conversions after the 7/10 year tariff development deadline should be prohibited. Projects that have not managed to be viable with their original technology by that time should simply reenter the queue as new projects.

However, technology additions should be allowed for projects beyond that deadline. EDF-R understands the CAISO’s concerns in the revised Straw Proposal, e.g., that projects may seek to go around complete conversion to storage in the MMA process by adding storage and then downsizing to remove the original technology. However, that issue can be addressed much more directly, i.e., by allowing the technology addition at the requested capacity level but conditioning CAISO approval on: (1) the original project proceeding satisfactorily (as reported in the now-required quarterly progress reports); and/or (2) commitment by the IC not to significantly downsize the original project.

10. Additional Comments