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 Issues Paper posted on January 17, 2018.

Submit comments to InitiativeComments@CAISO.com

Comments are due February 7, 2018 by 5:00pm

The issue paper posted on January 17, 2018 and the presentation discussed during the January 24, 2017 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 Transmission Plan Deliverability Allocation

SCE agrees with the CAISO's principles regarding any revisions to the allocation of deliverability limit the risk to the PTOs and ensure the most viable projects proceed appropriately. As such, SCE opposes any proposal to allow a project to remain in the queue indefinitely and have endless opportunities to apply for deliverability. Such projects remaining in the queue open-endedly without making progress towards their commercial operation negatively affect other active projects. The increased uncertainty for projects sharing network upgrades and later clusters that potentially need those assumed upgrades could make future study results flawed and meaningless.

SCE believes that the CAISO's TPD allocation methodology should continue to assign a higher priority to those projects meeting the criterion in GIDAP Section 8.9.2.(2)a. *"The Generating Facility will be balance-sheet financed or has otherwise received a commitment of project financing, and the Interconnection Customer represents to the CAISO that either it has a regulator-approved power purchase agreement or that the Interconnection Customer is proceeding to commercial operation without a power purchase agreement".* SCE believes that if a project has not been allocated TPD by the conclusion of the second parking opportunity, the Interconnection Customer should be required to execute the GIA and either i) proceed to COD as Energy Only Deliverability Status ("EODS"), in which case the Interconnection Customer could re-enter the project in the CAISO queue for Full Capacity Deliverability Status ("FCDS") as discussed in Section 4.5 below; or ii) suspend the project in accordance with Article 5.16 of the GIA, which would provide the Interconnection Customer up to three additional years to meet the requirements of GIDAP Section 8.9.2.(2)a and have priority to a TPD allocation. Two parking opportunities together with a three-year suspension period, as allowed under the Tariff (assuming approval of the CAISO's extended parking proposal currently before FERC) , should be a reasonable amount of time for an Interconnection Customer to pursue and achieve the requirements of GIDAP Section 8.9.2(2)a. If at the end of the three-year suspension period the project has not been allocated TPD, then the Interconnection Customer can ether proceed to construct the project as EODS or terminate the GIA.

4.2 Balance Sheet Financing

SCE does not support elimination of GIDAP Section 8.9.2(2)a. An Interconnection Customer should not be penalized because it has the ability to balance sheet finance. SCE believes that this criteria should be strengthened such that the Interconnection Customer is required to provide evidence of its ability to balance sheet finance and documentation of significant expenditures on continued development activities.

4.3 Participating in the Annual Full Capacity Deliverability Option

SCE supports the CAISO's proposal to consider changes to the annual full capacity deliverability option, including additional qualifying criteria, requiring the same TPD retention criteria as for projects that received a TPD allocation by qualifying for the allocation in the TPD allocation process, to eliminate the potential for gaming and so that there will be greater equity between the two options for a resource to be allocated deliverability.

4.4 Change in Deliverability Status to Energy Only

SCE does not support the CAISO considering additional opportunities for projects to convert to energy only deliverability status beyond the currently allowed between Phase I and Phase II studies, and after the allocation of deliverability. Further, in support of TPD being allocated to those projects that are ready to proceed with development, SCE believes that if an Interconnection Customer has accepted a TPD allocation, then the Interconnection Customer should forfeit 100% of its Interconnection Financial

Security postings if the project is later withdrawn by the Interconnection Customer, or the project is converted to EODS by the CAISO for not meeting the TPD retention criterion.

4.5 Energy Conly Projects' Ability to Re-enter the CAISO Queue for Full Capacity

SCE is not opposed to allowing existing, currently operating, Energy Only projects opportunities to reenter the queue in order to seek deliverability if such existing projects cannot attain deliverability through other deliverability options that may be available. However, any such allowance to reenter the queue should come with a requirement for such projects to remain responsible for the allocated cost associated with any new Local Area Network Upgrades (LDNUs) that may be identified as needed to provide for the requested deliverability. Such requirement would eliminate the churning of "new" interconnection requests for the same existing already operating generation resource which would otherwise occur if study results identify the need for new LDNUs. This requirement would ensure that the shifting cost responsibility from these existing and already operating generation resource to PTOs, other projects, or ratepayers does not occur.

4.6 Options to Transfer Deliverability

4.7 Transparency on Availability of Deliverability

4.8 Commercial Viability Criteria – Continuous Compliance Obligation

SCE supports the CAISO considering the implementation of a continuous commercial viability criteria compliance obligation, including during instances where a project makes modifications after it has made an initial commercial viability criteria demonstration but before the annual review process. The increased review frequency should be effective towards reducing the time a non-commercially viable project remains in the queue.

4.9 Interim Deliverability Status

4.10 Effective Load Carrying Capacity

4.11 Cancellation or Delay of CAISO Approved Transmission Projects

5. Energy Storage

5.1 Distributed Energy Resources

5.2 Replacing Entire Existing Generator Facilities with Storage

5.3 Deliverability Assessment for Energy Storage Facilities

6. Generator Interconnection Agreements

6.1 Suspension Notice

SCE supports the CAISO's proposal to modify Article 5.16 – Suspension of the GIA to require the Interconnection Customer to include a start and end date in its suspension request. This requirement will provide the CAISO with the ability to approve the suspension period, with concurrence from the PTO by ensuring that the project is in good standing and in determining how the milestones set forth in the

GIA and later queued customers may be impacted during the suspension period. In addition, the inclusion of a start and end date will place the CAISO and the PTO in a better position to enforce the termination provision of the GIA if work does not recommence by the end date. In addition, SCE would like to modify Article 5.16 – Suspension to include language that would require the interconnection customer or off-taker upon the recommencement of work to negotiate in good-faith new revised milestone dates based on the construction duration period in the executed GIA and by taking into account the period of suspension. A request by the interconnection customer or off taker to self-build pursuant to Article 5.3 of the GIA by claiming that the Participating Transmission Owner can no longer meet the milestone dates designated in the executed GIA as a result of not taking the period of suspension into account is unreasonable and shall be denied.

6.2 Affected Participating Transmission Owner

In response to a suggestion raised during the January 24 stakeholder meeting that a four-party agreement (between the interconnection customer, interconnecting PTO, affected PTO, and the CAISO) may be used to detail the obligations of all four parties, SCE strongly opposes this proposal for the following reasons:

1. The affected PTO has no input with respect to the interconnecting PTO's requirements as identified by the reliability studies performed by the interconnecting PTO.
2. The affected PTO has no input with respect to upgrades that may have been identified internal to the interconnecting PTO's electric system.
3. The interconnecting PTO's have no ability to manage and resolve issues on behalf of the interconnection customer that may arise with an affected PTO.
4. Negotiating appropriate agreements among three parties is already a complex time-consuming effort which would grow significantly with each additional party that is added to the agreement.
5. The CASO already oversees agreement negotiations and mediates any stalled negotiations

Consequently, SCE supports the continued use of separate agreements in order to properly identify the requisite terms and conditions among only the parties involved. SCE also supports including a pro forma affected PTO's facilities agreement in the GIDAP to assist in the negotiations.

6.3 Clarify New Resource Interconnection Requirements

6.4 Ride-through Requirements for Inverter based Generation

The large fleet of intermittent renewable resources interconnecting to the CAISO grid has dramatically altered the energy landscape. Interconnection Studies performed for renewable resources, including intermittent resources, since before the onset of the Queue Cluster study efforts have determined that the high penetration of asynchronous resources have created a greater reliance on these resources to effectively operate in order to maintain a safe a reliable grid. These studies have identified that such asynchronous renewable resources are required to meet voltage and frequency ride-through requirements. Consequently, SCE supports the CAISO addressing voltage and frequency ride-through requirements including the requirement to continue to inject current during system fault conditions that are cleared within a prescribed time period (i.e., cycles needed for system protection to clear faulted

facilities). The need to continue to inject current will ensure MWs associated with these asynchronous resources support system voltage and frequency. As for existing asynchronous resources installed under PURPA during the early days of Qualifying Facilities should continue to be exempt so long as these resources are not repowered. However, older technology asynchronous resources that are repowered should be required to meet the ride-through requirements.

6.5 Affected System Options

6.6 Modeling Data Requirements

SCE supports the CAISO proposal with respect to the need for complete technical modeling data from roughly 30% of the generation in the market which are currently not required to meet the NERC/WECC modeling data standard. This need is for planning purposes and reliability of the grid as the technical data will ensure studies properly reflect expected system performance. Without such technical data, actual performance cannot be properly simulated adversely impacting SCE and the CAISO's ability to properly study overall system reliability.

7. Interconnection Financial Security and Cost Responsibility

7.1 Maximum Cost Responsibility for NUs and Potential NUs

SCE believes that Potential Network Upgrades and Current Cost Responsibility should be defined and that the Maximum Cost Responsibility should include the Potential Network Upgrades. SCE believes the Maximum Cost Responsibility should not be adjusted. Adjusting the Maximum Cost Responsibility creates unnecessary confusion. Any and all adjustments should be made to the Current Cost Responsibility. The Current Cost Responsibility should be increased or decreased based on the reassessment process, downsizing, or reclassification of Network Upgrades as policy driven upgrades, etc. but should never exceed the Maximum Cost Responsibility. The Interconnection Financial Security postings should be adjusted, up or down, with any adjustment to the Current Cost Responsibility; however, the Interconnection Customer's should not be required to decrease the Interconnection Financial Security postings as a result of a downward adjustment if they chose not to.

7.2 ITCC for Non-cash Reimbursement Network Upgrade Costs

SCE believes that the issue of non-reimbursable network upgrade costs subject to posting security for ITCC should not be addressed in a CAISO stakeholder proceeding and recommends that participants seeking clarification on this issue reach out to the Internal Revenue Service (IRS).

With respect to the second issue, non-cash reimbursable network upgrade costs are eligible to receive merchant transmission congestion revenue rights pursuant to the CAISO Tariff Section 36.11.

SCE seeks clarification on the issue unless CalWEA is asking that CRRs when issued by the CAISO for non-cash reimbursable network upgrade costs be treated by the IRS as an equivalent to cash repayments by the PTO for eligible network upgrade costs to avoid having to post tax security? If so, CalWEA and other market participants should seek clarification from the IRS.

7.3 Financial Security Postings and Non-Refundable Amounts

SCE supports PG&E's proposal to have a portion of non-refundable financial security postings assigned to upgrades that are no longer deemed needed due to reassessment but where the PTO has already incurred costs or irrevocably committed funds to the project. There needs to be a change to the CAISO tariff such that the transmission-building entity is eligible for recovery of 100% of prudently incurred costs of a transmission facility or network upgrade approved by the CAISO which is subsequently cancelled by the CAISO through no fault of the PTO. PG&E's proposal includes one possible source of funding in such instances.

7.4 Queue Clearing Measures

7.5 Shared SANU and SANU Posting Criteria Issues

Given an SANU is typically needed by a single or limited number of interconnection customer(s) the GIDAP BPM requirement that any project assigned a SANU must post for 100% of the associated costs should remain intact. If multiple interconnection customers share a SANU, they each should continue to be required to post 100% of the costs. Changing the current CAISO policy to allow each project assigned a SANU to post less than 100% of the costs would unreasonably transfer financial risk to the PTO if projects with a shared SANU withdraw, but the SANU is still needed.

7.6 Clarification on Posting Requirements for PTOs

SCE supports PG&E's and CAISO's proposal to provide a tariff revision that PTOs should not have to post Interconnection Financial Security to themselves when they develop new generation projects interconnecting to their own areas.

7.7 Reliability Network Upgrade Reimbursement Cap

The withdrawal of earlier-queued projects with executed GIAs that include RNUs, whose cost reimbursement is limited by the corresponding $60K/MW maximum reimbursement amount, should not transfer "backstop" obligations to the Interconnecting PTO that are in excess of the $60K/MW reimbursement amount. In the situation where earlier-queued projects withdraw, but the upgrade(s) are determined to still be needed by later-queued projects, the interconnecting PTO's "backstop" obligations to these later-queued projects should be limited to the maximum cost reimbursement identified for the earlier-queued projects and the queued-behind projects should bear the cost associated with amounts that are in excess of the maximum reimbursement amount. This would ensure that the costs that are shifted to the interconnecting PTO, and corresponding ratepayers, under the "backstop" provision are limited to the maximum cost that would have ultimately been included in the CAISO Transmission Access Charge, with refunds over a period of five years, if the originating project would have moved forward with the project. In short, appropriate measures must be implemented to avoid cost-shifting from the interconnection customer to the interconnecting PTO's ratepayers. In the event of withdrawal by a project with assigned RNUs, the later-queued interconnection requests that still require the upgrade should be required to make the impacted PTO financially whole for RNU costs above the $60,000/MW threshold. This can be accomplished by identifying costs that are in excess of the $60K/MW maximum reimbursement amount as Potential Network Upgrades cost for later-queued projects that could be assigned only if earlier-queued projects withdraw.

SCE understands that technology is continuously changing and that a moratorium on technology changes, including fuel-type modification, for interconnection customers that have (or are requesting) a Commercial Operation Date beyond the 7/10 year threshold anticipated by the CAISO tariff could eliminate the need to perform numerous material modification assessments. However, all Interconnection Studies are predicated on a set of study assumptions that include the most up-to-date representation for all queued-ahead projects. Implementing a moratorium on the systematic update to technology changes would result in performing Interconnection Studies with a stale set of study assumptions for later-queued projects, could add unnecessary delays to project development once a project's Commercial Operation Date approaches, and could hinder the interconnection customer's ability to negotiate appropriate terms and conditions with manufacturers if the material impacts associated with a technology modification are not evaluated timely.

While the use of stale data in itself is unlikely to cause extensive impact in the results of ongoing Interconnection Studies, the moratorium could expose the project to a potential identification of a material impact that if performed earlier may not have been identified. Such conditions have a very low probability of occurrence but could arise at locations where short-circuit duty margins are minimal. As far as adding unnecessary delays or adversely impact the interconnection customer's ability to negotiate appropriate terms and conditions with manufacturers, this could be addressed by ensuring the moratorium is lifted with sufficient time to complete a material modification assessment if such assessment is required by the interconnection customer. Consequently, SCE recommends specific criteria be developed to ensure material modification evaluations are requested in such a manner as to not impact any of the GIA milestones.

9.2 Commercial Viability – PPA Path Clarification

SCE does not generally see a problem with allowing the Interconnection Customer to pursue additional PPA opportunities during the grace period and later switch to balance-sheet financing if a PPA was not successfully acquired; so long as the decision to switch does not require further delays in In-Service,

Initial Synch, and COD timelines. In other words, allowing an IC to switch from the pursuit of additional PPA opportunities during the grace period to balance-sheet financing should consider the IC's progress in project development milestones such that the switch does not drive the need for further material modification evaluations to further delay In-Service, Initial Synch, and COD timelines. Limiting choice to a binary selection could result in adverse impacts to projects that otherwise may come to fruition. While SCE understands the need to eliminate current delay tactics used, SCE also recognizes the need to eliminate potential barriers to project development. SCE recommends that the CAISO consider obtaining IC confirmation of desire to move to balance-sheet financing if acquiring PPA was unsuccessful prior to the end of the grace period. Such confirmation would eliminate the potential for delay tactics by obligating the project to make progress on project development irrespective of PPA outcome.

SCE also believes this proposal may be unnecessary if, as proposed by SCE in Section 4.4 above, an IC that has accepted a TPD allocation and subsequently withdraws its project, or the project is converted to EODS by the CAISO for not meeting the TPD retention criterion, should forfeit 100% of its Interconnection Financial Security postings. This reinforces that TPD is allocated from the onset to those projects that are ready to proceed with development whether by balance sheet financing or as a result of an executed PPA.

9.3 PPA Transparency

SCE supports the CAISO's intent to clarify this requirement more explicitly in the tariff.

9.4 Increase Repowering and Serial Re-Study Deposit

SCE supports the CAISO's proposal to increase from $10,000 to $50,000 the study deposit for repowering and restudy of serial projects, as this more accurately reflects the actual costs to perform such studies.

9.5 Clarify Measure for Modifications after COD

9.6 Short Circuit Duty Contribution Criteria for Repower Projects

SCE supports modifying short circuit duty (SCD) criteria for repower projects to align with the criteria used in performing a material modification evaluation for projects that have yet been constructed. Such modification to the criteria will ensure that both repower requests and material modification requests be evaluated in a consistent manner. With regards to actual thresholds to be used, SCE recommends that the individual PTO's define and determine the appropriate thresholds and methods to use rather than simply using 100 amps at nearest network breaker and 20 percent breaker capacity margin across the board. SCE uses the 100 amps at nearest network breaker to flag need for review of CBs but leverages the study results obtained in most current cluster study as a means of evaluating whether any increases to duty at these locations are likely to create a material impact or can be cleared of material impact from a duty perspective. If the location that is impacted was not flagged in most recent cluster study, SCE then reverts to the available SCD margin as a means of evaluating material impact.

9.7 Material Modification for Parked Projects

As noted above in Section 9.1, delays in commencing material modification evaluation, even for parked projects, would result in performing ongoing Interconnection Studies with a stale set of study

assumptions, could add unnecessary delays to both GIA development and project development once a project un-parks, could result in describing the project in the GIA Appendix C using what would be stale data and ultimately require amendment, and could hinder the interconnection customer's ability to negotiate appropriate terms and conditions with manufacturers for these parked projects if the material impacts associated with a technology modification are not evaluated timely. For these reasons, SCE supports performing material evaluations for projects, even those that are parked, earlier in time so long as the appropriate Material Modification process is followed.

10. Additional Comments