SDG&E's Stakeholder Comments

Submitted by	Company	Date Submitted
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Please use this template to provide your written comments on the 2018 IPE stakeholder initiative Straw Proposal posted on May 9, 2018.

Submit comments to InitiativeComments@CAISO.com

Comments are due June 8, 2018 by 5:00pm

The straw proposal posted on May 9, 2018 and the presentation discussed during the May 21, 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 (TPD) Allocation

Balance Sheet Financing (previously section 4.2): San Diego Gas and Electric Company (SDG&E) supports the California Independent System Operator's (CAISO) proposal to modify the concept of Balance Sheet Financing (BSF) and include stricter restrictions for those who plan to develop regardless of their Power Purchase Agreement (PPA) status.

Participating in the Annual Full Capacity (AFC) Deliverability Option (previously section 4.3): SDG&E agrees with the CAISO and the majority of stakeholders that the current AFC process is not very beneficial, but we are open to allowing Interconnection Customers (IC) to seek a TPD allocation after they have exhausted their opportunities through the standard allocation process based on affidavit scoring.

Energy Only (EO) Projects' Ability to Re-enter the CAISO Queue for Full Capacity (FC) (previously section 4.5): Consensus

Commercial Viability – PPA Path Clarification (previously section 9.2): SDG&E supports the CAISO's proposal to eliminate the reference to BSF for the purpose of meeting Commercial Viability Criteria (CVC). We appreciate the new commercial viability criteria and also the 3 options provided to the ICs.

<u>CAISO TPD Allocation Proposal:</u>

SDG&E generally supports the proposal to create 7 allocation groups for ICs. We believe that replacing the current AFC deliverability option with groups 4, 5, 6 and 7 would be a big step forward. We appreciate the detailed descriptions given to each allocation group, especially groups 2 and 5, in which it is specified that the shortlisted project must execute a PPA by November 30th of the calendar year that such an allocation was received. We also appreciate the clarification that the CAISO will only allocate TPD provided no new DNUs are required. On the other hand, we feel that it is a little counterintuitive that projects that have actually achieved commercial operation are at the very bottom (Allocation Groups 6 and 7). SDG&E would like the CAISO to explain why these projects are given the lowest priority.

4.2 Balance Sheet Financing

Now part of 4.1.

4.3 Participating in the Annual Full Capacity Deliverability Option

Now part of 4.1.

4.4 Change in Deliverability Status to Energy Only

SDG&E agrees with the CAISO's proposal to allow projects to change their deliverability status to EO at any time after the Phase II study. We also appreciate the clarification that projects switching to EO will retain the cost responsibility for all DNUs (unless these DNUs are no longer needed).

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

Now part of 4.1.

4.6 Options to Transfer Deliverability

SDG&E appreciates the CAISO providing the various opportunities to transfer Deliverability at the same Point of Interconnection (POI). We are in agreement and don't see any potential issues from our side, especially given that the deliverability transfer will result in the same or lower maximum output tested in the deliverability assessment.

5. Energy Storage

5.2 Replacing Entire Existing Generator Facilities with Storage

SDG&E is okay with allowing a generating facility to add 100% (storage) of its approved capability to the project provided the output of the project does not exceed the interconnection capacity at the POI and the generator has a limiting mechanism to ensure that the additional capacity is not put on to the grid. SDG&E also accepts the proposal to allow up to a 10% change when decreasing the amount of proposed generation to replace it with energy storage. We agree that this is something that could be on a case-by-case basis moving forward. SDG&E appreciates the clarifications in regards to these projects following CAISO dispatch instructions since they are not considered a firm load, but are negative generation. We think it is important that the projects install an automatic generator tripping scheme and give the CAISO authority to trip the generating facility or take any other necessary actions to limit the output of the generating facility so the total output of the generating facility does not exceed the approved interconnection request capacity at the POI.

6. Generator Interconnection Agreements

6.1 Suspension Notice

As mentioned in our previous comments, SDG&E fully supports the requirement for inclusion of start and end dates along with the authority of the CAISO to approve the suspension. We also agree with SCE that 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. 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, we are happy that the CAISO is standing behind the MMA process to ensure that the milestone dates proposed by the IC are achievable and that network upgrades are in place for the new timeline. SDG&E supports the CAISO's proposal to modify article 5.16 of the LGIA to include language such as when the interconnection customer requests suspension, the written notice shall include a start and end date for the suspension. We also appreciate the modification to include language requiring the interconnection customer to negotiate in good-faith to expeditiously revise the milestone dates.

6.2 Affected Participating Transmission Owner

SDG&E supports the CAISO's proposal to modify the tariff to allow a separate maximum cost responsibility for each PTO, which will be documented in the interconnection studies and the GIA or affected PTO upgrade facilitiers agreement as appropriate.We are okay with ICs making interconnection financial security (IFS) postings with IFS instruments to each PTO separately, which would translate into the ICs receiving repayment for their contribution to the cost of network upgrades from each PTO separately. We are happy that the repayment amounts advanced for reliability network upgrades will be paid by each PTO up to a combined maximum of $60,000 per MW of generating capacity as specified in the GIA. We also believe that it is fair that the CAISO added proportionality to the total repayment of each PTO's RNU's. The example did a good job of illustrating this.

6.3 Clarify New Resource Interconnection Requirements

SDG&E agrees with the CAISO's position on this issue.

6.4 Performance and Diagnostic Minimum Requirements for Inverter based Generation

SDG&E agrees that these obligations need to be on a "moving forward" basis and only apply to existing resources if projects repower or revise their inverters.

SDG&E supports the CAISO's proposal to no longer permit momentary cessations for new inverter based generation during momentary drops in the system AC voltage. SDG&E believes that if inverters give priority to reactive current (during transient low voltage conditions), then this would remedy the issue of inadvertent generator tripping by supporting the system.

SDG&E fully supports the CAISO's proposals regarding: Momentary low voltage, momentary high voltage, return times following transient voltage deviations, phase lock loop synchronization issues, post inverter trip return time and diagnostic equipment. We believe that the sum of these approaches and recommendations will go a long way in preserving the reliability of our high voltage transmission system.

7. Interconnection Financial Security and Cost Responsibility

7.1 Maximum Cost Responsibility for NUs and Potential NUs

SDG&E agrees that the CAISO should continue to include potential network upgrades in the project's maximum cost responsibility. We do not agree with LSA, EDF and SPower's alternative to this. The concept of "maximum cost responsibility" is to assure IC's that this is the highest cost that they would potentially have to pay if they move forward. It doesn't make sense to increase the maximum cost responsibility late in the lifecycle of the interconnection process. We think that this is unfair, and wouldn't want to have to do this to an IC.

While SDG&E understands the CAISO's intention, we disagree with the assertion that: "Once a project in a prior cluster **signs its GIA** then any projects with a potential network upgrade from that project should have their maximum cost responsibility reduced by the amount of the potential network upgrade". The problem with this logic is that there is an assumption that if an IC signs a GIA with a PTO, then they are definitely moving forward with their project and constructing the NUs that are required of them. Our experience has proven that signing a GIA doesn't mean the a project plans on moving forward, providing a final posting and written authorization to proceed. In fact, we have seen many projects withdraw after they've signed a GIA with us for a wide variety of reasons (permitting, inability to sign a PPA, deliverability status, etc…) The consequences of including the CAISO's proposed language into tariff is that it unfairly puts the ratepayers at risk due to ICs withdrawing after signing a GIA and thus having other ICs with Potential NUs with zero costs. We believe that ratepayers would end up paying for the Potential Upgrade (that is still needed) when the project responsible withdraws before providing a final posting or written authorization to proceed. This is opposed to our ratepayers paying only $60,000/MW for Network Upgrades. SDG&E has a policy where we do not start construction on RNUs or LDNUs until enough ICs (that contribute to these NUs) provide a final posting and written authorization to proceed to SDG&E. I will provide an example to illustrate our previous point regarding ratepayers paying for a Potential Network Upgrade:

Scenario: Cluster 7 IC (“X”) wants to loop-in a transmission line by constructing a new switchyard ($50-80 million upgrade). Cluster 8 IC (“Y”) wants to connect to this new switchyard which supposedly X is paying for. This new switchyard is a Potential RNU for Y because this project came in a subsequent cluster and would not have to potentially pay for the new switchyard if it will already be covered by project X. In project Y’s report, we would insert this switchyard’s cost as a Potential RNU so that project Y’s maximum cost responsibility reflects potentially needing to construct a new switchyard if X withdraws. Project X signs a GIA with SDG&E. According to the CAISO’s new proposal, we are required (per tariff) to remove this switchyard’s cost from Project Y’s report, lowering their maximum cost responsibility. Project X one year later decides to withdraw from the CAISO queue. Project Y was planning on using the new $50-80 million switchyard that Project X was supposed to construct but their maximum cost responsibility has already been reduced. So, now our ratepayers are required to pay for the expensive new switchyard for Project Y instead of only paying $60,000/MW.

In the above example, we used a new 500kV switchyard for illustration, but one can apply this logic to different RNUs or LDNUs. This is why SDG&E believes that the signing of a GIA should not trigger the removal of a Potential Network Upgrade (or any upgrade). The true trigger would be receipt of the final posting and written authorization to proceed, that way the PTO is guaranteed that the project will move forward and the ratepayers would be protected. At the very least, SDG&E requests that the CAISO let each PTO decide how to approach such a situation and not mandate every PTO per tariff to remove network upgrades because of the execution of a GIA. SDG&E agrees with SCE that the Maximum Cost Responsibility should not be lowered (following the removal of a Potential Network Upgrade) because there is still a chance that a project might decide to withdraw even after providing a third posting and written authorization to proceed. Once again, this would leave our ratepayers vulnerable to pay the difference between the expensive NU instead of only paying $60,000/MW.

7.5 Shared SANU and SANU Posting Criteria Issues

SDG&E appreciates the CAISO recognizing that the PTO is put at risk if a project sharing a SANU (whose cost is split) withdraws. SDG&E supports the CAISO’s proposal to allow PTOs to make a determination on a case by case basis, or to establish our own criteria for SANU cost allocation. SDG&E agrees with the CAISO’s proposal to remove the requirement in the BPM that each project seeking to self-build a SANU be assigned 100% of the cost.

7.6 Clarification on Posting Requirements for PTOs – Final Proposal

SDG&E has not comments at this time

7.7 Reliability Network Upgrade Reimbursement Cap

SDG&E appreciates that the CAISO considers our (along with SCE and ORA) solution simple to implement and appropriate. SDG&E supports the CAISO’s proposal that if a project withdraws after executing a GIA whose RNU costs exceed the $60k/MW cap, the cost responsibility for the amount exceeding the

$60k/MW cap will fall to the later cluster projects needing the RNUs, in the fashion of a potential NU, but not be reimbursable. These costs will thus be included as contingent upgrades in the interconnection customers' study reports.

7.9 Impact of Modifications on Initial Financial Security Posting

SDG&E agrees with the intention of this CAISO proposal and we do believe that if a facility is known to be no longer needed after the completion of the Phase I studies, then that will be reflected in the Phase II studies and no changes are made to the Phase I study report. We agree with the CAISO that if engineering judgement can definitively determine that a required upgrade in an interconnection customer's Phase I study report is no longer needed due to the withdrawal or changes to earlier queued projects or other system changes, and that determination is made in advance of the initial IFS posting due date, the interconnection customer should not be required to post IFS for that upgrade.

The only issue we have with this proposal is that the term "engineering judgement" has been a controversial point in the past between developers and PTOs. In various proceedings we have been involved with, the PTO has been asked to justify their engineering judgement and provide a step-by-step breakdown on how we practice engineering judgement. We are worried that, in the future, we will be asked to justify why we haven't removed any upgrades from an IC's study report and provide an explanation for our engineering judgement methodology.

8. Interconnection Request

8.1 Study Agreement – Final Proposal

SDG&E supports these new requirements proposed by the CAISO.

8.4 Project Name Publication

SDG&E has no comments regarding this topic.

9. Modifications

9.1 Timing of Technology Changes

SDG&E supports the CAISO's proposal to create an absolute prohibition on technology changes that change the project fuel type for interconnection customers that have (or are requesting) a commercial operation date beyond the 7/10 year threshold anticipated by the CAISO tariff. We are also supportive of changing the MMA process to evaluate commercial viability criteria for every MMA requested by a project where the project milestones are beyond the 7/10 year threshold.

9.2 Commercial Viability – PPA Path Clarification

Now part of 4.1.

9.3 PPA Transparency – Final Proposal

SDG&E supports the CAISO's submittal for Board approval.

9.4 Increase Repowering and Serial Re-Study Deposit– Final Proposal

SDG&E supports the CAISO's proposal to revise all references from $10,000 to $50,000 in sections 25.1.2 of the tariff, Appendix U Sections 6.4, 7.6, 8.5, 10.1 and 12.2.4.

9.5 Clarify Measure for Modifications After COD – Final Proposal

SDG&E supports the CAISO's proposal to clarify in the LGIA and SCIA that modifications requested prior to COD will be approved based on the material modification assessment in the GIDAP, and modifications requested after COD will be approved based on the criteria in Section 25 of the CAISO tariff. We also support the ability to downsize generation porjects after COD.

9.6 Short Circuit Duty Contribution Criteria for Repower Projects

SDG&E supports the CAISO's proposed criteria to determine the short circuit duty impact of a repowering request in Section 12 of the BPM for Generator Management. We feel that it gives the PTO the flexibility to make a determination whether an adverse impact would be caused, therefore protecting our ratepayers.

10. Additional Comments

Although section 7.8 (Reimbursement of Network Upgrades) was not selected as a topic for the CAISO's IPE 2018, we wanted to clarify our original position. In our initial comments, SDG&E was not supportive of the CAISO including the reimbursement of network upgrades topic (section 7.8) in IPE 2018. This is because, as the CAISO mentioned, it is such a big paradigm shift that it would require a separate setting and huge modifications to the tariff that could not be covered in IPE 2018. We do, however, believe that this is a topic worth studying and considering in a separate process that has a larger timeline, since this topic likely requires much more time than provided in IPE.

Once again, SDG&E appreciates the CAISO discussing these 20 topics and providing proposals that will further improve the generator interconnection process. We are happy to work with CAISO and other stakeholders to ensure that this process continues to progress towards the benefit of our ratepayers, interconnection customers, PTOs and to the CAISO itself. Thank you for this opportunity.