

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 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.

General Comments:

First Solar appreciates the California ISO responding to stakeholder requests for reform in a number of areas related to the interconnection process. We believe that the continued focus on adjusting the rules to fit with the changing circumstances in California is the right approach for calibrating the rules to accommodate commercial, infrastructure and policy requirements. We certainly recognize the significant effort that the California ISO staff puts into this

engagement with stakeholders and appreciate the complexity of managing these interconnection issues and balancing all interests.

4. Deliverability

4.1 Transmission Plan Deliverability Allocation

Based on the discussion during the stakeholder call, First Solar believes that the new structure for allocating deliverability is an improvement over the current ranking structure. First, we agree that moving to third priority those projects that have indicated following Phase II that they will be proceeding without a power purchase agreement appropriately places projects with executed or approved power purchase agreements and projects that are shortlisted ahead of those proceeding without a PPA.

With respect to the energy-only rankings for categories 4 and 5, CAISO will prioritize energy-only projects that have a PPA requiring FCDS (Group 4), or are shortlisted by an LSE that requires the project to be FCDS (Group 5). First Solar is fine with prioritizing these first but believes that it is highly unlikely that a project would enter into a power purchase agreement requiring FCDS without the ability to deliver on that requirement; nor would a project bid into a procurement solicitation to provide a product requiring deliverability without the needed assurance from the CAISO's interconnection process. The CAISO may want to consider whether there is another measure of commercial viability for energy-only projects that should be valued in the ranking process for deliverability.

We also request that the CAISO elaborate in its next draft about the process for calculating deliverability and why this newly-structured ranking process provides the opportunity for some allocation for energy-only process. While staff noted the calculation on the stakeholder call, the explanation was not entirely clear and is not captured in anything that can be reviewed. It would be valuable to have details that will allow interconnection customers to better understand the methodology for the allocation and why the CAISO believes that the new process creates a better opportunity for deliverability allocations to energy-only projects.

4.2 Balance Sheet Financing

The CAISO is proposing that the only time a project can elect to proceed without a PPA is following the project's Phase II study. A project that indicates it will proceed without a PPA must accept transmission plan deliverability, whether partial or full, although if partial the project may park the remaining portion of the project and choose to seek deliverability in the next cycle or downsize. The CAISO is also putting additional conditions on those projects that elect to proceed without a PPA: no suspensions, requirement to proceed to executing a GIA and

provide written notice to proceed to the PTO within 30 days of executing the GIA, and requirement to agree that no extensions beyond the 7 year time-in-queue limitation under any circumstances.

First Solar understands from the CAISO's straw proposal that these proposed changes are prospective and the limitations would not apply to those projects which have already indicated an intent to balance sheet finance the project. We would appreciate CAISO confirming this and clarifying how it intends to make the delineation clear as to which projects will be subject to the new rules.

While First Solar agrees with the logic behind the limitation on extensions in time in queue, for a project that successfully executes or receives regulator approval for a PPA, it still makes commercial sense, and sense for ratepayers, to align the COD with the PPA requirements, including pushing beyond the 7 year time-in-queue limitation if need be. Since the interconnection customer is entitled to repayment for its contribution to the cost of the network upgrades beginning with commercial operation, if the interconnection customer does not need to deliver under an agreement until a date certain, commencing the timing of repayments with the PPA delivery timeframe establishes the balance of certain value to customers with the commencement of cost recovery.

The requirement in Appendix DD section 14.3.1 that any permissible extension of COD would not alter the interconnection customer's obligation to finance network upgrades where required to meet earlier CODs of other generating facilities would still apply, so there would be no adverse effect to other interconnecting customers by allowing this alignment between the COD and PPA timelines.

Of course if the project remains a merchant project without a PPA having selected the option to build without needing a PPA, then the project should be held to the limitation on extension of COD unless there are delays caused by the PTO or an affected system that are not under the control of the interconnection customer.

In addition, a project should not be required to move immediately into the notice to proceed if it is not yet ready for development. There are many factors which dictate the timing of the notice to proceed; requiring the notice to proceed within 30 days of executing the GIA establishes an artificial deadline that may not account for timing of permitting. Since the CAISO is already modifying the rules to tighten up the time-in-queue provisions for this category of projects, First Solar urges the CAISO to allow these projects the same rights granted to other projects to manage the commercial and environmental elements of the project in line with GIA terms to bring the project to commercial operation.

4.4 Change in Deliverability Status to Energy Only

The CAISO proposes to require projects that are forced to convert to energy-only (as the only option other than withdrawing) because they have not met commercial viability or TPD retention criteria will retain the cost responsibility for all deliverability network upgrades. The CAISO asserts that project developers may “seek to use conversion requirements associated with failure to meet CVC and TPD retention criteria to reduce their cost responsibility and then withdraw,” and “[f]ailing to be commercially viable effectively becomes an attractive option for interconnection customers contemplating withdrawal.”

Requiring projects that remain in the queue as energy-only projects to retain the cost responsibility for all DNU is not just and reasonable. Doing so removes the cost responsibility that goes with the value of retaining deliverability and improperly penalizes a project that is further along in its development cycle and invested in all elements needed to keep it viable and competitive. This would also have the effect of essentially giving the next project that receives deliverability from the reallocated capacity a free ride, creating an unfair financial advantage and removing the financial risk that drives commercial decisions.

We appreciate that the CAISO has recognized the connection between the time needed to market a project and the ability of a project to retain its marketability – namely any deliverability it may have been allocated – for a reasonable period of time following receipt of the Phase II study results. But the timeframe is still very aggressive and the rules are very unforgiving in a California procurement landscape where renewable development is still seen as needed to meet SB 350 requirements to reduce GHG emissions, where the policy focus remains on development in-state and where the uncertainty remains as to migration of load to Community Choice Aggregators and timing and framing of their procurement cycles in light of unresolved proceedings at the CPUC.

First Solar strongly opposes the proposal to require projects that are forced into energy-only status as the only option other than withdrawal to retain cost responsibility for network upgrades that would no longer be available for that project’s use.

4.6 Options to Transfer Deliverability

First Solar is supportive of the additional opportunities to transfer deliverability. The CAISO proposes doing so among generating units if under the same GIA, and within the same interconnection request. We would like to suggest that the CAISO add the ability to transfer deliverability if an interconnection customer has projects that have the same owner, are at the same point of interconnection and have the same technology type, but where they were the result of different interconnection requests (e.g., projects from different clusters).

6. Generator Interconnection Agreements

6.1 Suspension Notice

First Solar agrees with CalWEA's comments that the start and end dates would be highly hypothetical but we are supportive of the CAISO conducting a material modification assessment to ensure the suspension will not impact other interconnection customers and provide conditions to mitigate those impacts if identified.

6.4 Ride-through Requirements for Inverter based Generation

First Solar understands the CAISO's interest in adopting new requirements related to momentary cessation and the other issues identified in the CAISO's straw proposal under section 6.4, and we appreciate the explanation offered about the issues and what the CAISO proposes to do in response. We would request that the CAISO write up the specific technical requirements for inverter-based generators associated with its proposal so that we can better evaluate how new requirements would align with the requirements of PRC-024-2 and our equipment. We also need to understand if any new requirements will be imposed by CAISO on the dynamic models that are usually supplied by the interconnection customers during the interconnection process.

First Solar understands that the CAISO indicated it has been working with equipment manufacturers, but we would greatly appreciate a chance to understand and participate in the development of these specifications which will have an impact on our development nationwide. We would suggest that CAISO consider hosting a technical workshop with interested parties who have been actively engaged in the NERC process to take input as the requirements are being developed.

6.5 Affected System Options

First Solar appreciates that the BPM section referenced by the CAISO establishes a process for working through affected system issues but believes that the CAISO's role can and should be strengthened. While the CAISO asserts in the Straw Proposal that "Section 6.1.4.3 allows an interconnection customer to proceed without affirmative agreement by an affected system operator of the affected system operator does not move forward on a timely basis, the affected system cannot demonstrate a reliability issue, and the impacts can be mitigated on the CAISO system." However, getting to the point where this occurs is very late in the process after the interconnecting generator has all of its postings at risk of forfeiture. This poses immense risk to the interconnection customer that may not be resolved, if at all, until the very end of the process after infrastructure investment, entitlements and permitting are all complete for the project.

First Solar recommends that the CAISO adopt a more transparent and structured process that is documented and allows the affected system and the interconnection customer, and any other similarly-situated interconnection customers to fully engage would be very useful. The CAISO and the affected system are in a much better position to work through the issues and challenges together; the interconnection customers do not have the same access to system information, models and assumptions as the transmission operators.

The transmission plan deliverability process requires that an interconnection customer execute a GIA before November the year that a project receives a deliverability allocation, as a condition to retaining deliverability. This means the interconnection customer is working under an agreement with deadlines and milestones that must be met to stay in good standing absent unless extended under the material modification process, and as the process goes along the interconnection customer faces greater financial risk if something unforeseen occurs via the affected system review that impedes the development timeline. To mitigate this significant financial risk to the interconnection customer, sustained engagement from the CAISO is important throughout the process.

One idea from a practice described by MISO during the FERC technical conference on affected systems is CAISO coordinating calls with affected systems on a monthly basis to make sure that modeling and study results are shared in a transparent and timely basis. This would work well if initiated following the Phase I posting requirements to help manage the timeline and information flow. We believe that with a more assertive and open role by the CAISO, the process will allow better understanding of the assumptions that the CAISO is making and create a better opportunity to give the affected system more comfort that the operational and mitigation plans, like redispatch or implementation of remedial action schemes to avoid impacts, could be trusted by the affected system and expensive upgrades could be avoided if there were greater confidence in system operations.

Finally, to mitigate the financial risk associated with withdrawals associated with the inability to reasonably resolve affected system issues, First Solar suggest that a limit be placed on the maximum forfeiture amount of Phase I postings so that rather than 50% at risk there is a limit of \$150,000 or \$250,000 if the withdrawal is due to negative results from the Affected Systems or Phase II results. Phase I results can be extensive since projects are studied on top of a large queue, or substantial clusters driving those Phase I costs, and now potential network upgrades are increasing the exposure. Therefore, interconnection customers can only guess at what withdrawals will reduce those costs sufficiently to be financially viable following Phase II when the affected system results are known.

7. Interconnection Financial Security and Cost Responsibility

7.1 Maximum Cost Responsibility for NUs and Potential NUs

First Solar fully supports the CAISO's conclusion that the maximum cost responsibility should be adjusted down when a reassessment determines that a potential network upgrade is no longer needed. Projects already face enormous financial risk as part of the posting framework and First Solar believes the process works to create incentives for project developers to look carefully and seriously at commercial viability. However, the issue of the cost cap reflecting potential network upgrades is a serious one that we believe deserves more discussion and review. Many power purchase agreements include an interconnection cost cap that requires the seller to pay for any costs in excess of the cap or face termination. Adding the risk of potential network upgrades to this cost cap makes it even more likely that this provision would be triggered. We would urge the CAISO to set a working group or set this for stakeholder discussion at the next meeting to discuss the proposal before settling on a proposed rule.

7.6 Clarification on Posting Requirements for PTOs – Final Proposal

First Solar is supportive of relieving an interconnection customer that is also PTO from initial postings, and also supports the CAISO's proposal to develop a tariff mechanism that provides financial accountability should the PTO withdraw its project following posting due dates so that non-refundable amounts are collected.

7.7 Reliability Network Upgrade Reimbursement Cap

First Solar suggests that if this provision is implemented there should also be a balance where if a later-queued project has headroom within its upgrade costs based on its MW size, for example, then the excess costs paid should be reimburseable to the Interconnection Customer that paid them. We also request additional clarification as to the equities of this proposal to the later-queued interconnection customer. The uncertainty associated with withdrawals may change or eliminate required reliability network upgrades, and there is not sufficient justification to move these costs to the next cluster.

7.9 Impact of Modifications on Initial Financial Security Posting

First Solar supports the CAISO's proposal that an interconnection customer no longer be responsible for posting for an upgrade if an upgrade identified in the Phase I study report is no longer needed due to the withdrawal, changes to earlier queued projects or other system changes. This proposal eliminates the need to post for upgrades that have vanished and First Solar appreciates the CAISO identifying this improvement based on its experience from Cluster 10.

8. Interconnection Request

8.1 Study Agreement – Final Proposal

First Solar is supportive of this proposal.

8.4 Project Name Publication

First Solar believes that the value to transparency associated with publishing project names and the identity of the developer outweighs the benefits of confidentiality. With greater transparency on the identity of projects, it is more likely that developers can make smarter commercial and investment decisions. It is also more likely that developers will be able to make competitive pricing bids in the procurement process with more transparency, benefitting ratepayers.

However, given that project names can change over the course of a project, it may be more straightforward to simply identify the project developer associated with the queue number. Over the development timeline, project owners can change, and that process is clear, but naming is more complex. And to have to continually create new names, even for the same project being resubmitted, limits the ultimate naming of projects that are built and operational. Official naming of a generation project, with its resultant Pnode designation, doesn't need to technically occur until the NRI process; a solution where limiting the complexity and rigidity of the naming convention process would simplify and streamline things.