

Move GIP Deliverability Assessment to TPP An Alternative TPP/GIP Proposal

Introduction

Ormat Technologies, Inc. (Ormat) is pleased to present this proposal to the CAISO in lieu of comments on the ISO's TPP/GIP Revised Straw Proposal. While the ISO's proposal identifies the challenges all parties face in making sense of the GIP interconnection queue, we believe that a simpler – more fundamental – revision to the TPP/GIP interaction will more effectively resolve the worst of the problems in the future and even provide an incentive for projects currently in the interconnection queue to modify their status and simplify the GIP process. The proposal, to eliminate the deliverability assessment from the GIP and include it in the TPP, was dismissed at the most recent stakeholder meeting as interesting but too complicated to implement in the current reform process. Discussion with other parties at and after the meeting suggests that there is significant support for making this change. The ISO's conclusion that the risk and confusion likely to arise from attempting to apply revised rules to existing interconnection clusters is valid. However, failing to deal with the 75,000 plus MW currently in the queue means that multiple restudy cycles will likely be needed before final and meaningful network deliverability upgrade requirements can be established. This alternative proposal provides incentives for projects currently in the queue to opt in to the new study process. To the extent that the ISO and PTOs can develop a more expedited mechanism to identify reliability upgrade costs – because deliverability upgrade costs do not need to be continuously revised – project developers should be able to get a final and accurate cost estimate sooner.

Please direct any comments or questions regarding this proposal to Phillip Muller, SCD Energy Solutions, philm@scdenergy.com, 415-479-1710.

TPP/GIP Proposal

California's renewable energy gold rush has created a challenge for the CAISO's generator interconnection process which currently has over 75,000 MW in queue. While it is unlikely that all (or even most) of the generation projects in the queue will actually get built, there is no clear, equitable, and nondiscriminatory way for the CAISO to determine which to include in its network upgrade analyses. However, by including everything with equal or higher queue priority in the analysis, study results are meaningless, network upgrade funding obligations are completely out of proportion to the actual needs of the system to accommodate a 33% (or even a moderately higher than 33%) Renewable Portfolio Standard (RPS) requirement, and otherwise viable generation projects will be forced out of the queue resulting in a corresponding and ongoing need for re-study. This is already happening with respect to the results from the Transition Cluster, queue clusters 1 and 2, and will be exacerbated by the results from queue clusters 3 and 4.

To deal with this problem in the TPP/GIP Integration process, the CAISO proposes to rely on the establishment of a "preferred portfolio" that would limit the range of ratepayer financed transmission upgrades in the various resource development areas to the size

of the portfolio designated in the TPP. When there are more generating projects seeking to interconnect in a resource development area than the preferred amount, or in locations not deemed preferred, some generators would be required to pay for (not just finance subject to refund) all network upgrades required to make the generator fully deliverable to the aggregate of the CAISO load for Resource Adequacy (RA) counting purposes (“Delivery Network Upgrades”). Considering the high cost of many of these required transmission facilities, it is unlikely that proposed generating projects that have to include the cost of transmission upgrades in their overall cost will be able to compete against competitors that are fortunate enough to be among the “chosen.” The result would be that the “preferred” portfolio would become the actual portfolio regardless of whether or not it may have been the most economic or beneficial to the off-taker and ultimately to the ratepayers. Somehow or another, the development of the preferred portfolio needs to account for commercial interest¹ and incorporate a mechanism that can more effectively identify the network upgrades most likely to provide the greatest ratepayer benefit (as compared to other alternatives for satisfying California’s 33% RPS requirement).

Most of the network upgrades identified for these interconnections are needed to provide RA deliverability. Reliability network upgrades required to interconnect are generally much smaller in scope and less impacted by other nearby projects in the queue.² Delivery Network Upgrades are those required to allow the project to provide RA to CAISO LSEs. They are a function of CAISO and CPUC policy determinations, not physical reliability or grid safety. This means that projects could be physically connected to the transmission grid without building deliverability upgrades. Furthermore, because CAISO dispatch does not differentiate between deliverable and energy only resources, deliverability does not grant any operational advantage. As a result, it is possible to interconnect GIP applicants without the Delivery Network Upgrades. This fact suggests a potential solution to the interconnection queue conundrum that would more directly allow commercial considerations, rather than administratively determined preferences, to determine which deliverability upgrades get built. To make this happen, we propose to transfer the evaluation of deliverability network upgrades from the GIP to the TPP. It will have the same effect as the CAISO’s straw proposal without the illusory “option” of developer financing.

The process could work something like this:

¹ Measures of commercial interest can include existence of a signed Purchase Power Agreement (PPA), approval of the PPA by a regulatory authority, evidence of generating project site control, developer experience, financial strength existing operational renewable projects, and receipt of key regulatory permits necessary to construct the generation. The CAISO would use these measures to decide which specific generating projects are entitled to the RA deliverability made available by the deliverability network upgrades in the TPP.

² It is important that the CAISO provide a clear way of distinguishing between Reliability Network Upgrades and Delivery Network Upgrades. Reliability Network Upgrades should only include those network facilities that are necessary to allow the full output of an interconnecting generator to be delivered to the existing grid under the assumption that the CAISO’s congestion management protocols are exercised (to adjust the output of existing generators and other interconnecting generators of equal or higher queue priority) so as to maximize the output of the interconnecting generator being studied.

1. Developers submit interconnection requests in the Cluster process, much like is done today, except that the GIP would only identify interconnection costs and Reliability Network Upgrades needed to safely interconnect and reliably operate. This could be done using the two-phase GIP process described in the revised straw proposal.
2. In the TPP process, which would take place between GIP phases 1 and 2, LSEs and the CAISO, with input from stakeholders, would specify proposed generators, and/or locations for new generation, for which deliverability upgrades are likely to be beneficial for CAISO consumers. The CAISO would determine, in its TPP, the Delivery Network Upgrades needed to provide deliverability for those projects/locations. This determination would reflect the results of analysis which compares the cost of the identified deliverability upgrades to the economic benefits those deliverability upgrades provide to CAISO consumers (as compared to other alternatives for meeting California's 33% RPS requirements). These economic benefits would include an estimate of the value of the RA counting rights that are created as well as possible reductions in congestion-related costs and transmission loss savings.
3. Based on the CAISO's analysis, the CAISO Board would determine which of the identified deliverability network upgrades are justified and authorize recovery of the associated costs through the CAISO's Transmission Access Charge (TAC) mechanism.
4. Regulatory authorities with responsibility for approving the construction of the deliverability network upgrades, such as the CPUC, would determine whether the subject deliverability network upgrades are "needed" and grant construction approval accordingly.
5. Any generating project not chosen for deliverability upgrades in the TPP could choose to continue interconnection as an energy only project, absorb the costs of Delivery Network Upgrades necessary to make the project fully deliverable³, withdraw from the queue subject to appropriate refunds, or suspend their interconnection process for a year while retaining their queue position. Suspended projects would not move to Phase 2 of the GIP (or be included in the Phase 2 analysis) and would be subject to reduced refunds of deposits if they later withdraw.
6. "Chosen" projects would receive deliverability status – and the associated Qualifying Capacity – when they become commercially operational. If chosen projects are not built but the associated deliverability network upgrades are, the RA deliverability

³ This could even support projects that are built to export out of the CAISO, by crediting the cost of their deliverability upgrades against their TAC wheeling charges, a mechanism commonly implemented in other control areas.

could be made available to other projects in some kind of equitable and transparent process.

In this process an LSE might determine that making a resource fully deliverable does not justify the network upgrade cost and instead obtain the RA capacity from some other – perhaps a renewable integration – resource. Over time, this process could be incorporated into CPUC proceedings, perhaps replacing the existing Transmission Ranking Cost Report (TRCR) process.

Furthermore, this process should be applied to Clusters 3 and 4, to the transition cluster, Clusters 1 and 2 on a voluntary opt-in basis. Rather than financing Delivery Network Upgrades subject to refund, the projects could convert to energy only and leave the deliverability assessment to the TPP and, if they have a PPA, to their LSE counter-parties. Those without a PPA could choose to suspend their project, moving it into Cluster 5. They would thus be able to maintain their interconnection status in future resource solicitations (a requirement of most current resource solicitations) without using up deliverability otherwise available to other projects. They would also be less likely to be subject to future deliverability restudies as other projects drop out of the queue, providing more certainty in the process. Indeed, by putting all projects in the queue on equal footing, this revision may make increase the viability of applying the split to all projects currently in the queue that have not executed an Interconnection Agreement.