Interconnection Process Enhancements 2018

Submitted by	Company	Date Submitted
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PG&E appreciates the opportunity to propose topics for inclusion in the forthcoming Interconnection Process Enhancements ("IPE") 2018 initiative. PG&E recommends considering the following topics in the IPE 2018 initiative.

Clarify Cross-Cluster Network Upgrade Cost Responsibility

Under the current CAISO tariff, a participating transmission owner ("PTO") is obligated to construct interconnection network upgrades that are triggered by an interconnection customer project once the interconnection customer has executed an interconnection agreement ("IA"), even where that interconnection customer later withdraws from the interconnection queue or terminates its IA.

Interconnection customers generally up-front fund the cost of interconnection-driven network upgrades. These costs are then reimbursed over a five-year period, once the interconnection project has achieved commercial operation. These costs are recovered from end-use customers. For reliability network upgrades ("RNUs"), interconnection costs can be reimbursed only up to $60,000 per megawatt. This cost cap ensures that end-use customers are protected from excess interconnection costs for RNUs.

This cost-cap protection does not apply where an interconnection customer with an executed IA later withdraws or terminates its IA. In that case, the PTO is obligated to construct the RNUs and end-use customers pay for their full cost. PG&E recommends that CAISO address this gap in the IPE 2018 initiative.

One way to effectively protect end-use customers would be to incorporate potential network upgrade cost responsibility for later-queued interconnection projects that are relying on earlier-queued network upgrades. This solution would require that we evaluate how cost caps are developed, so they can effectively reflect potential network upgrade costs.

Alternatively, instead of having the PTO (and, by extension, end-use customers) provide the financing of the RNUs, interconnection customers might instead provide financing for RNUs.

There surely is a range of possible solutions available to address this gap. PG&E looks forward to discussing with stakeholders these and other possible solutions in the upcoming initiative.

Interconnection Request Application Enhancements

PG&E has identified several enhancements to the interconnection request application process that could provide for an improved and more efficient experience for all stakeholders. To the extent these processes are directly dependent on the CAISO tariff and warrant evaluation in a stakeholder initiative process, PG&E invites the CAISO to consider the following enhancements as part of the IPE 2018 initiative:

- Clarify project naming requirements between the CAISO interconnection process and PTO needs. PG&E has noticed that some interconnection customers have found that there is occasional confusion when attempting to satisfy both of these.
- Improve the IA form by having entries that are duplicative auto-populate based on earlier-entered information, such as MW capacity at the point of interconnection.
- Clarify FERC Order 827 requirements for non-synchronous generation:[1] E.g., interconnection customers need to provide .95 PF *producing* vars when the voltage is .95 pu, and .95 pf *absorbing* vars when the voltage is 1.05 pu.
- Clarify the exact last date to change system design—such as reactive power compensation or project capacity—before a project is "locked in" until Phase 1 results review.

Clarification of Network Upgrade Cost Reimbursement for Network Upgrades that are later deemed Unnecessary *(Added on September 28, 2017)*

PG&E has great concerns about cost recovery of monies advanced for network upgrades that were later deemed to be unnecessary for reasons outside of PG&E's control. Under current interconnection agreements, PG&E believes that the PTO is obligated to reimburse interconnection customers for monies advanced for network upgrades which do not become operational as long as the generation project reaches commercial operation.

If the PTO reimburses the interconnection customer(s) for these ultimately unnecessary network upgrades, then the PTO can only recover 50% of the network upgrade costs in its revenue requirement as abandoned plant, with the remaining costs borne by shareholders. This cost burden that is outside the PTO's control is not acceptable. There is at least one way to address this matter: going forward, allow the PTO not to provide reimbursement for the network upgrades that were later deemed unnecessary and which do not become operational.

PG&E looks forward to discussing with stakeholders the changes that can be included in the tariff to clarify the intent and functionality of the reimbursement mechanism.

[1] FERC Order 827 set out requirements for newly interconnecting non-synchronous generators, ending the exemption for wind-based non-synchronous resources to comply with general *pro forma* LGIA and SGIA obligations in light of technology advances allowing these resources to provide reactive power.