Comments of Pacific Gas & Electric Company

Flexible Capacity Needs Technical Study Process

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) appreciates the opportunity to comment on the California Independent System Operator's (CAISO) Flexible Capacity Needs Technical Study Process. PG&E supports including three items in the CAISO's Flexible Capacity Needs Technical Study.

1. <u>PG&E asks the CAISO to discuss in its Flexible Capacity Needs Technical Study how the CAISO intends to revisit the definition of net-load, particularly in light of the services economically dispatchable renewables provide to the CAISO's system flexibility.</u>

In its Stakeholder conference call on January 31, 2017, the CAISO referred to the NERC's accepted metric of net-load for evaluating additional flexibility needs to accommodate VERs. PG&E asks the CAISO to discuss in its Flexible Capacity Needs Technical Study how the CAISO intends to revisit the definition of net-load, particularly in light of the services economically dispatchable renewables provide to the CAISO's system flexibility. PG&E believes that the metric of net-load, as it is still a new metric, should be re-visited. PG&E asks the CAISO to consider that economically bidding renewable resources do not contribute to the NERC reliability criteria associated with the creation of the multi-hour ramping requirement. PG&E recommends that the CAISO remove variable resources that can demonstrate the capability to bid in all CAISO markets for all 8760 hours of each year from the net-load metric. Removing these resources from the net-load metric will have the effect of creating a market signal to encourage economic bidding by wind and solar resources. Up until now, the idea behind allowing variable resources to receive RA credit as flexible capacity resources has not been clarified and has the potential to be unnecessarily complex, particularly since limiting the EFC for a resource to its NQC value is inappropriate for variable energy resources. If CAISO were to reduce an LSE's flexible capacity obligation for wind and solar resources that provide real-time economic bids, LSEs would have an incentive to sign contracts with resources to provide this capability.

2. PG&E asks the CAISO to address in its Flexible Capacity Technical Study how it plans to improve its methodology for collecting the forecasted contribution to the 3 hour net load ramp from merchant renewable resources

PG&E is concerned that the CAISO did not discuss its plans to address merchant VERs through the Flexible Capacity Technical Study. PG&E believes that it is appropriate and fair to allocate flexible requirements caused by merchant VERs that are not under contract or are contracted to an LSE not located within the ISO's balancing area to the merchant VERs themselves. This follows the principles of cost causation. In previous comments, PG&E has asked the CAISO to assess the potential impact of merchant VERs and their allocation of flexible capacity requirements annually to capture changes in the market and increasing levels of renewable energy resources.[1]

3. PG&E asks the CAISO to provide more detail in its Flexible Capacity Technical Study on how it captures the net-load contribution of renewable resources that have sold their energy or renewable energy credits but have not sold their capacity to a Load Serving Entity (often referred to as "energy-only" contracts).

PG&E asks the CAISO to be more explicit in its Flexible Capacity Technical Study and related data request whether variable renewable resources that have been procured by LSEs for energy and/or RECs, but not RA capacity are included in the CAISO's assessment. If the data request is not explicit that "energy-only" contracts are to be included in the study, it is possible that the CAISO is missing non-dispatchable intermittent resources that contribute to the three hour net load ramp from its assessment.

[1] PG&E's comments on the FRACMOO Phase 2 Issue Paper, submitted on July 15, 2015.