

2018-19 Transmission Planning Process (TPP)

Submitted by	Company	Date Submitted
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PG&E provides the following comments in the 2018-19 Transmission Planning Process (TPP) based on the Stakeholder meeting of November 16, 2018.

Deliverability Methodology

During the stakeholder meeting, CAISO presented for the first time a new proposed Deliverability Assessment Methodology Proposal, applicable to intermittent wind and solar resources. In the discussion, several stakeholders voiced interest in a further technical workshop to explore the details of this methodology. PG&E concurs that such a workshop would be helpful.

PG&E understands that the proposed methodology will assume lower dispatch levels of wind and solar resources compared to the current dispatch levels that are used within the existing deliverability methodology for resources that count towards Resource Adequacy (RA). This change may allow more resources to obtain deliverability with fewer deliverability network upgrades but it may also cause resource curtailments to become even more frequent.

As CAISO further develops the new methodology, PG&E recommends that CAISO differentiate between curtailments for Energy Only (EO) versus Full Capacity Deliverability Status (FCDS) resources. In actual operating conditions, EO resources may displace FCDS resources in the economic dispatch. EO resources are interconnected without Deliverability Network Upgrades (DNU) and curtailment is assumed to mitigate any other reliability problems. FCDS resources are interconnected with DNU to enable the resource to deliver its output to the grid under specific study assumptions. Currently, the CAISO's studies treat economic curtailment and reliability curtailment identically for both EO and FCDS resources. However, they can have different economic consequences. Economic curtailment represents a direct cost (in terms of lost output availability of the resource) only to those customers that hold the contract with a given resource. Reliability curtailment, by contrast, is not compensated, and EO resources are

not assumed curtailed consistent with the terms of their interconnection. This creates costs that are not directed to the EO resources that interconnected under specific conditions.

Additionally, the CAISO's proposed methodology recommends a shift in the assessment hours to the new evening hours (H18-H22) under the "peak sale" scenario. This shift results in a 20% exceedance level to ensure higher certainty of renewable resources but any assumption of solar deliverability in H20-H22 does not fit the period when the resource would provide energy to the grid.

Economic Assessment

PG&E supports the economic studies performed by the CAISO for this TPP cycle. The CAISO identified a number of facilities that resulted in congestion for the Westland-Fresno-Kern Area and we encourage the CAISO to continue evaluating this area for potential upgrades that can be identified to effectively relieve the congestion. The economic studies presented also identified a single facility in the PG&E system, Giffen 70 kV Line, that alone has an expected congestion duration of 1,912 hours due to the solar generation. PG&E requests that the CAISO consider reconductoring of the Giffen 70 kV line and, if found to be an effective solution, approve it as an economically driven project as a part of this TPP cycle.

LCR Special Study

PG&E appreciates the CAISO's economic evaluation of the potential solutions that would reduce the capacity requirements in local areas. Based on the load shapes provided previously, there appear to be a number of LCR areas and sub-areas that would be ideal candidates for preferred resource solutions to replace uneconomic gas-fired generation. PG&E originally requested that the CAISO confirm the specific estimate as to whether energy-limited resource characteristics for a number of areas were feasible. PG&E requests additional guidance on the potential for the areas originally submitted in order to determine the suitability of preferred resource solutions.

Assessment of Previously Approved Projects On-Hold

PG&E continues to appreciate and support the CAISO's efforts to re-evaluate previously approved projects in the PG&E service territory with "on-hold" status from 2017-2018 TPP Re-Assessment. PG&E has comments for the following two "on-hold" projects:

- Diablo Canyon Voltage Support Project: CAISO intends to cancel the Diablo Canyon SVC project which was proposed primarily to meet Nuclear Power Interface Requirements (NPIR) and NUC-001-3 reliability standard. As part of this project reassessment CAISO, instead, proposes to solely rely on local protection schemes such as the Divide or Paso Robles UVLS to meet the NPIR and NUC-001-3 until Diablo Canyon retires in 2025.



PG&E will need to work closely with CAISO to evaluate this recommendation and its potential impact to compliance with the reliability requirements. As currently designed, the existing local UVLS are not intended to monitor the voltage at Diablo 230 kV bus, thus such expansion of the local scheme would need to be investigated. In addition, the settings of these UVLS are not designed to meet NIPR, so new settings may need to be developed and tested to ensure the NIPR and NUC-001-3 requirements are met.

- Midway – Andrew Project: PG&E agrees with the alternatives that CAISO presented and which are now being considered. However, since repurposing of one of the Diablo Canyon-Midway 500 kV lines to 230kV line is part of the new proposed scope, such change would have to fully evaluate the impact on the Path 15 flows as well as any potential impacts on its rating.

PG&E will continue to support the CAISO as necessary in evaluating the alternatives identified, including providing cost and feasibility information for identified alternatives. PG&E also looks forward to completion of this extensive effort during this TPP cycle.