

## DOCKETED

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**PG&E Comments on the RETI 2.0 Initial Transmission Assessment Focus Areas**

*Additional submitted attachment is included below.*

May 2, 2016

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DOCKET 15-RETI-02**

California Energy Commission  
Dockets Office, MS-4  
Docket No. 15-RETI-02  
1516 Ninth Street  
Sacramento, CA 95814-5512

Re: Docket 15-RETI-02: Pacific Gas and Electric Company Comments on Long-Term Renewable Scenarios and Preliminary Transmission Assessment Focus Areas for the Renewable Energy Transmission Initiative 2.0

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the April 18, 2016, Plenary Group meeting of the Renewable Energy Transmission Initiative (RETI) 2.0 hosted by the California Public Utilities Commission (CPUC), California Energy Commission (CEC), and California Independent System Operator (CAISO).

**I. Aligning the Transmission Assessment Focus Areas with the RPS Calculator's transmission zones will enable effective input into regulatory planning proceedings**

PG&E supports the proposed Transmission Assessment Focus Areas (TAFAs) as a positive step towards aligning the RETI 2.0 process with existing regulatory proceedings, such as the RPS Calculator. The TAFAs make use of the existing Super CREZ boundaries – established by existing regulatory planning processes – to identify areas of interest for further study for long-term renewables and transmission scenarios. Aligning RETI 2.0 TAFAs with the Super CREZ boundaries will enable RETI 2.0 to most effectively inform future regulatory transmission planning.

PG&E also supports the consideration of energy-only transmission capacity in the proposed TAFAs, specifically aligning the TAFAs with the energy-only zones considered by the CAISO in their 50 percent RPS Special Study. PG&E agrees that RETI 2.0 should consider how the development of energy-only RPS resources might affect the need for new transmission to meet the 50 percent RPS goal, particularly how cost-effective deployment of energy-only resources can reduce the costs and potential environmental concerns associated with new transmission development. Recent runs of the RPS Calculator indicate minimum transmission needs if new renewable resources are allowed to be energy-only. RETI 2.0 should examine the

amount of existing energy-only transmission capacity and whether such capacity is sufficient to achieve the legislatively mandated 50 percent RPS goal.

Finally, PG&E also encourages the RETI 2.0 TAFAs to consider out-of-state transmission – both potential additional capacity from coal retirements and potential new transmission from new investment – to facilitate cost-effective renewable resources for California’s RPS. Specifically, PG&E agrees with the inclusion of out-of-state resources and interties in the RETI 2.0 Preliminary Focus list. While the inclusion of the California-Oregon Intertie, Control, and Path 46 Interconnections are a useful starting point, RETI 2.0 should consider all of the out-of-state transmission paths that would be needed for the out-of-state resources, rather than simply the intertie delivery points into California.

**II. RETI 2.0 should not recommend renewable procurement or specific new transmission**

As a non-regulatory planning process, RETI 2.0 should focus on how best to inform the inputs to existing regulatory proceedings. Accordingly, RETI 2.0 should not attempt to produce conclusive recommendations for specific resource combinations or transmission investments in each TAFAs. The RETI 2.0 process can and should recommend certain areas for further study in the RPS Calculator, LTPP, and TPP and provide supportive and additional information to facilitate the study of these areas in the appropriate regulatory venues, as detailed below.

**III. RETI 2.0 should focus on providing updated inputs into existing regulatory planning proceedings**

RETI 2.0 should seek to provide updated information on the assumptions used in other proceedings. The regulatory planning proceedings have only recently begun planning for 50 percent RPS and RETI 2.0 should focus on updating the assumptions and inputs used in those proceedings. Where it identifies potential issues with those assumptions, it should identify the specific assumption for re-evaluation. California’s existing regulatory planning process, through the RPS Calculator, LTPP, and TPP, considers the capability of incorporating new RPS resources on existing transmission and assess what transmission upgrades might be warranted to support RPS policy goals. PG&E cautions that transmission assessments should be deferred to CAISO’s TPP for both regional and inter-regional transmission planning. PG&E encourages RETI to leverage this existing information and consider contributing data to fill holes in the existing datasets in these planning processes.

PG&E recommends that the environmental and transmission technical working groups could address the following questions to inform future versions of the RPS Calculator:

- How much out-of-state renewables can be imported into California on existing transmission?
- What are the key Super CREZs adjusted for environmental/culturally sensitive areas across the entire Western Interconnect (using WECC’s Environmental Data Tool)?
- Are there environmental or permitting barriers that would limit in-state wind development (e.g., in Solano and the Sacramento River Valley)?
- Do estimates of energy-only transmission capacity need to be technology-specific?

- How much energy-only transmission is reasonable given the lack of completed interconnected studies?
- Is there sufficient capacity on the sub-transmission network to deliver energy-only capacity to the high voltage “backbone”?
- What are the potential impacts across WECC driven by the potential implementation of the Clean Power Plan (i.e., increased coal retirements and RPS targets WECC-wide)?

#### **IV. Proposed Updates to TAFAs Assessment Approach**

PG&E supports the general approach taken by RETI 2.0 in studying each TAFAs, but offers the following proposals as updates to the approach used to assess each TAFAs’s renewable and transmission capacity estimates:

- PG&E supports the use of energy-only capacity values, however RETI 2.0 should consider the assumptions behind these energy-only capacity values and how they may need to be refined. For example, the energy-only capacity available for a given TAFAs may depend on the resource mix assumed in that TAFAs. Additionally, the CAISO’s 50 Percent Special Study examined RPS portfolios provided by the RPS Calculator that did not “max-out” the energy-only capacity in each of the energy-only zones. Given this, RETI 2.0 should not treat the energy-only capacity values as a fully vetted, firm cap on transmission capacity while studying the transmission potential or limit in each TAFAs.
- PG&E supports the use of the RPS Calculator v6.2 runs to inform RETI 2.0. However, the sensitivity runs performed by the CPUC RPS Staff used a draft version of the Calculator and were based on the draft LTPP Assumptions and Scenarios document. PG&E urges RETI 2.0 to utilize the 2016 LTPP scenarios (modeled through 2030), as defined by the Final Assumptions and Scenarios document<sup>1</sup> when considering transmission needs for 50 percent RPS. By synching the RPS scenario definitions with the 2016 LTPP cases, RETI 2.0 will be best positioned to align with and inform future long-term planning processes.
- PG&E supports consideration of the Technical Potential for Renewable Energy by TAFAs as generated by the RPS Calculator. RETI 2.0 may inform future versions of these assumptions.
- PG&E appreciates there are only a relatively few studies of California’s transmission needs for a 50 percent RPS. However, it is important to understand that only studies that utilized the RPS Calculator aligned with the existing planning paradigm of generating plausible renewable and transmission scenarios based on the least-cost best-fit approach. PG&E believes that studies used as inputs that are not based on a least-cost, best-fit approach to renewable portfolio selection should be used for informational purposes only.

Specifically, it is PG&E’s understanding that the CEERT/NREL Low Carbon Grid Study chose an RPS portfolio designed to limit operational challenges, not to quantitatively minimize

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<sup>1</sup> Per the CPUC “Straw Proposal for the 2016 Integrated Resources Planning/Long Term Procurement Planning...” posted 4/22/2016 in docket R.16-02-007, the final A&S ruling will be issued in “Late April 2016”.

renewable procurement and transmission costs. The WECC TEPPC studies also form important data points to consider out-of-state transmission operations, but they similarly did not identify which options align with the current least-cost transmission planning paradigm. For this reason, the output from these studies should be treated as informational and should not form a foundation for RETI to make specific recommendations to the regulatory least-cost based transmission planning process.

- PG&E agrees with RETI 2.0 examining which out-of-state transmission paths or interties are mostly likely to be impacted by future renewable development and which western expansion options provide the most optionality or serve multiple goals.
- RETI 2.0 should not use the CAISO queue to justify additional transmission needs. RETI 2.0 should instead refer to the CAISO queue as solely one indicator of preliminary developer interest in a given area. The CAISO's revised GIDAP-TPP process considers project viability and not just the interconnection queue in assessing transmission needs, and RETI 2.0 should align its consideration of the CAISO queue similarly. Additionally, the CEC Project Database shows renewable projects in development and is an indicator of developer interest. However, some of these projects may not receive all necessary permits, may receive permits but not contracts, or may otherwise not come to fruition. Therefore, projects in CEC's Project Database should not be used to justify additional transmission needs.

## **V. Conclusion**

PG&E appreciates this opportunity to comment on the topic of Long-Term Renewable Scenarios and Preliminary TAFAs for RETI 2.0 and look forward to continued participation in this effort.

Sincerely,

/s/

Nathan Bengtsson