

**Pacific Gas and Electric Comments on the Draft 2014-2015 Draft Transmission Plan and Stakeholder Meeting on February 17, 2015**

Submitted by	Company	Date Submitted
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### **Comments**

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to participate in the annual Transmission Planning Process (TPP) stakeholder process. PG&E submits these comments on the Draft 2014-2015 Transmission and Stakeholder Conference on February 17, 2015. PG&E commends the CAISO for their work thus far in the TPP and looks forward to continuing the collaborative process.

#### San Francisco Peninsula Extreme Event Assessment

PG&E echoes its appreciation from prior comments of the thorough analysis on the San Francisco Peninsula Extreme Event Assessment and the potential impact to customers that could result from an extreme seismic event. The approach and methodology to analyze the potential unserved customer load based on the seismic integrity, location, and restoration times for damaged facilities provides valuable information about resiliency of the grid after an extreme event. Maintaining reliable service to PG&E's customers is a priority and PG&E supports CAISO's plan laid out in the Draft 2014-2015 Transmission Plan to improve reliability as informed by this assessment.

The assessment ultimately concluded that reliability on the San Francisco Peninsula can be improved with a project to reconfigure Martin substation and certain additional capital improvements to PG&E's existing system. In addition to the Martin substation reconfiguration, the Draft 2014-2015 Transmission Plan supports additional refinements to PG&E's modernization plan including (a) replacement of certain older design 115 kV underground cables in San Francisco and (b) upgrades to the 230 kV buses at San Mateo and Martin substations, to further improve seismic withstand capability. With these refinements to PG&E's modernization

plan, the San Francisco Peninsula Extreme Event Assessment indicates that the electric transmission system should maintain the ability to provide reliable service after a major seismic event. PG&E supports this analysis, including the recommended approval of the Martin substation reconfiguration, and will utilize this information to expand its existing modernization plan to further improve reliability.

#### Kern Area Reliability

PG&E also supports the reliability analysis that was performed in the Kern area, including the North East Kern Voltage Conversion Project to mitigate thermal overloads. This project will convert the North East Kern Area 70 kV system to 115 kV and addresses important reliability issues in that area. PG&E plans to initiate work on this project beginning this year.

#### LA Basin / San Diego Area Local Reliability Needs and Imperial Area Deliverability

PG&E appreciates the CAISO's in depth analysis of local reliability needs in the LA Basin/San Diego Area and Imperial Area deliverability in the 2014-2015 planning cycle. PG&E recognizes that both local capacity and deliverability requirements in these areas are met with the existing system and approved projects. However, PG&E strongly supports the CAISO's plan to monitor and evaluate local reliability in the LA Basin and San Diego in subsequent planning cycles to ensure that reliability needs for the grid can still be met as study assumptions and inputs may change in the future. PG&E also supports Imperial area deliverability assessment that was performed. It is reassuring that there is sufficient deliverability to accommodate all projects currently moving forward, with an additional incremental 500-750 MW of available deliverability for future development of renewable generation.

PG&E also supports the CAISO's analysis of potential back-up transmission solutions. However PG&E has some concern about the joint objective of increasing reliability in the Southern California Local area and improving deliverability from the Imperial Valley. Of course, if there is a need in one of these areas and both objectives be achieved with one solution that has low incremental costs over other alternatives than that could be a very effective solution. However, some project cost estimates have the potential to increase very significantly if project scope changes. An example could be where a transmission line originally considered being overhead needs to be underground for certain portions of the line. Both the risk of potential scope/cost increase and the incremental cost of back-up transmission solutions over alternatives should be considered in this analysis.

#### Load Interconnections

In the November 19, 2014 TPP Stakeholder Meeting, the CAISO indicated its concurrence for the 3 load interconnection projects (Lathrop 60 kV Load Interconnection, Aera Energy-East Cat Canyon Load Interconnection, and Southeast Surface Water Treatment Facility). For

documentation purposes and consistency, PG&E would like to see this concurrence documented in the Final 2014-2015 Transmission Plan as well.

#### Over Generation Frequency Response Assessment

PG&E echoes its earlier comments and appreciates the CAISO's attention to the matter of over generation and efforts to identify next steps for further evaluation. The CAISO's Duck Curve illustrates changes in the net load pattern that will bring about significant challenges in managing the grid. While this frequency response assessment is a good start towards evaluating potential over generation consequences, it is narrowly focused and further robust analysis must continue to prepare for all of the upcoming impacts of over generation.

The CAISO's analysis shows that there will be adequate response from the WECC system; however the CAISO will not have adequate governor response to satisfy its frequency response obligation per Bal-003-1. Furthermore, as suggested in the stakeholder meeting, the study was based on an optimistic view of resource capabilities and reality could lead to worse result. The changes in study assumptions could significantly impact the outcome of the study. Therefore PG&E supports CAISO's plan to further evaluate the impacts of over generation in the next TPP cycle and encourages the CAISO to work closely with WECC entities to review and update the modelling assumptions and expand the analysis to encompass a more comprehensive scope.