Stakeholder Comments Template

Submitted by	Company	Date Submitted
Sandeep Arora	LS Power Development, LLC	6/22/16

Please use this template to provide written comments on the Clean Energy and Pollution Reduction Act Senate Bill 350 (SB350) Study initiative posted on April 25, 2016.

Please submit comments to regionalintegration@caiso.com by close of business June 22, 2016

Materials related to this study are available on the ISO website at: http://www.caiso.com/informed/Pages/RegionalEnergyMarket/BenefitsofaRegionalEnergyMarket.aspx

Please use the following template to comment on the key topics addressed in the workshop.

1. Are any of the study results presented at the stakeholder workshop unclear, or in need of additional explanation in the study's final report?
Comment:
2. Please organize comments on the study on the following topic areas: **a. The 50% renewable portfolios in 2030** **b. The assumed regional market footprint in 2020 and 2030** **c. The electricity system (production simulation) modeling** **d. The reliability benefits and integration of renewable energy resources** **e. The economic analysis** **f. The environmental and environmental justice analysis**
Comment: **50% Renewable portfolio in 2030:** 50% RPS portfolio assumes Energy Only incremental capacity beyond 33% RPS under all scenarios. While this is one possible outcome, another outcome is that the incremental capacity is required to be deliverable. The impact of requiring this additional capacity to be fully deliverable should also be included in order for the analysis to be complete. **Assumed Regional market footprint in 2020 and 2030:** We note that Slide 99 from the May 24th presentation shows incremental load diversity benefits for PacifiCorp in 2020 if its transmission capability with CAISO is improved. Slide 101 further shows the value of increased transmission capacity in 2030 with benefits for both California and PacifiCorp. We believe that these and other related benefits of incremental transmission capacity should be captured in the analysis by considering the proposed transmission projects that are currently being studied under the Inter Regional Transmission Process in the analysis. For instance, if the SWIP North transmission project, a new 500 kV line connecting Midpoint to Robinson Summit (and further extending to Harry Allen and Eldorado) provided 1000 MW of "hurdle rate" free bi-directional transfers between PacifiCorp, NV Energy and CAISO, the additional cost savings that accrue not only to California ratepayers but to ratepayers of PacifiCorp and other ratepayers outside of California should be realized in the analysis. Furthermore, the ability of these hurdle rate free transfers to help California during over generation hours under current practice should be considered in the analysis.

Including this recommendation should help capture the benefits under a wide variety of conditions.

Reliability Benefits:

The impact of all SB350 study scenarios on overall grid reliability should be closely analyzed. We understand that reliability analysis is not the main focus of this study, but we suggest that this should be done. Several scenarios involve very different dispatch patterns than the CAISO operating grid experiences today. If any of these scenarios compromise overall grid reliability, mitigation may be needed. In particular, if more Out of State renewables are built and procured, regardless of whether these renewables are Energy Only or Full Capacity and delivered to native load or California, these will cause some major shifts in the flow patterns across WECC Bulk Electric System, and will likely increase California imports. This coupled with situations such as the recent announcement of retirement plans for Diablo Canyon will potentially further stress the transmission paths connecting rest of the WECC to California. This could pose reliability risks and possibly cause additional congestion issues on paths such as California Oregon Intertie (COI). While a few new transmission projects have been included in the analysis, but whether there is a need for additional transmission to improve transfer capability between current PAC and CAISO footprint should be analyzed. This additional analysis will help capture the true overall capital cost for new generation and transmission build for each scenario, such that the benefits of all scenarios can be meaningfully compared.

3. Other

Comment:

LS Power thanks CAISO for the opportunity to provide these comments.