

CAISO 2015/16 TPP: Stakeholder Comments

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LS Power appreciates the opportunity to provide comments on Reliability Results findings of the 2015/16 Transmission Planning process. LS Power understands that CAISO is currently working on Economic & Policy studies, the results of which will be presented at the November stakeholder meeting. We further understand that CAISO will be finalizing its Reliability Studies in the next few weeks. LS Power is submitting these comments for CAISO's consideration as it finalizes its studies and develops recommendations for new transmission project approval.

Preliminary Reliability Studies:

CAISO's Preliminary reliability analysis for the Northern California Bulk system shows several Basecase & Contingency overload issues on the Bulk Transmission System. CAISO's proposed mitigation for these issues is to either reduce generation and/or reduce COI flows. Also, several small local transmission upgrades are also being considered to address these issues. LS Power recommends CAISO to consider the need of a major transmission upgrade that addresses these issues, rather than relying on piece meal solutions or reducing generation and/or COI flows. As LS Power has previously submitted, its SWIP North 500 kV transmission project provides a major parallel path to COI & Path 26 and hence relieves several reliability issues identified.

Economic Studies:

LS Power had submitted an economic study request for CAISO for the 2015/16 Transmission Plan for CAISO to study congestion on CAISO's intertie with the Pacific Northwest; as well as to evaluate the economic, reliability, and incremental Energy Imbalance Market (EIM) benefits of the transmission solution proposed – SWIP North 500 kV project. LS Power understands that CAISO is currently working on performing economic studies. CAISO's preliminary Reliability Studies suggest that under certain contingency conditions COI flows may need to be reduced and brought within the nomogram limits. While this may solve the term reliability issues, but reducing flows on a major intertie will likely limit the economic benefits that CAISO, PAC and other future EIM entities can experience. Adding a new transmission project, such as SWIP North, should not only help reduce this transmission bottleneck but also should also allow more economic intertie transfers. If CAISO plans to address Bulk System reliability issues via generation curtailment and/or reductions in COI flows, this is an "Economic Loss", and should be factored into CAISO's Economic analysis.

Policy Studies, 50% RPS Study

LS Power understands that CAISO will be presenting its policy study findings at the November stakeholder meeting. Policy studies historically focused on a 33% RPS portfolio. In addition to

these policy studies, LS Power understands that CAISO will also be looking at the impact of higher renewable targets on transmission. To achieve the 50% RPS goal, an additional 15,000 MW of renewables will be needed in CAISO. Over-generation & Renewable curtailments will undoubtedly become a much bigger concern if additional renewables are integrated without transmission upgrades. Geographic diversity of resources will likely play a much bigger role in helping address some of the over-generation and curtailment issues. WECC-wide regional participation to manage over-generation and help California balance its system will be important in meeting 50% RPS goals.

Stronger interties and increased transmission capacity between WECC transmission systems will be an integral part of the solution to meet California's 50% renewables policy goal. California's investment in renewables will only be partially realized if the solution to over-generation is curtailment. Increased transmission and inertia capability will facilitate the EIM and transmission system integration that CAISO is pursuing to minimize curtailments, costs and improve reliability in a 50% RPS grid. For instance, several states in the West peak 1-2 hours ahead of California. If this diversity can be properly utilized, this will help minimize renewable curtailments in California and other states in the West. In order to integrate these neighboring systems and enable alternate peak renewable resources to reach California, current transmission bottlenecks will need to be addressed.

We understand that CAISO will not be proposing any new transmission solutions for 50% integration as part of this cycle, but CAISO should still keep this future new transmission need in mind as it reviews and approves transmission projects under the current planning cycle. Projects such as SWIP North, which will open up transfer capabilities and improve system integration between several transmission systems in the West and CAISO, will play a major role in helping California achieve its incremental policy goals.

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