

CAISO 2020/21 Transmission Plan: Stakeholder Comments

Submitted by	Company	Date Submitted
Sandeep Arora (sarora@lspower.com) (916) 850 5817	LS Power Development, LLC	10/08/20

LS Power appreciates the opportunity to submit comments on CAISO's 2020/21 Transmission Planning process.

(1) PG&E Bulk System Reliability issues:

CAISO staff presented several reliability issues for the Bulk system in the Northern California area. These issues include thermal overloads due to several P1, P2, P3, P6, P7 contingencies in the Northern CA Bulk system. For these thermal overloads, CAISO's current recommendation is to operate within the California Oregon Intertie (COI) nomogram, which typically involves reduction in COI flow. In addition, CAISO's study shows thermal overloads under contingency conditions in the Path 26 corridor and the current recommendation to address these overloads is adding additional generation to the existing Path 26 RAS, which will be tripped offline post contingency. While these may be effective short term operating solutions, these are not long term, robust planning solutions and are counter to the going forward demands on the grid which include the need for spare capacity, durability and flexibility. Implementing operating solutions may resolve the reliability need but the implications and effectiveness of these should be carefully assessed. For instance, reducing COI flows and/or Path 26 flows, or tripping additional generation post contingency could result in significant issues and may even be impractical to implement on capacity shortage days such as the recent load shedding events of Aug 14 & 15. COI is a major intertie path that connects CAISO to the Pacific Northwest. CAISO often imports close to 3200 MW¹ into its Balancing Authority from the Pacific Northwest. Relying on reduce flow on a major intertie as an ongoing solution to overloads is not prudent planning and only exacerbates the issue on days when CAISO is short on capacity. As noted in the October 6, 2020, Preliminary Root Cause Analysis report² for the Aug 14 & 15 events, CAISO reported that transmission constraints significantly reduced access to the needed import resources as: "...transmission constraints from the Pacific Northwest, since through the month of August, a major transmission line in the Pacific Northwest upstream from the CAISO system was forced on outage due to weather and thus derated the California Oregon Intertie (COI). The derate reduced the CAISO's

¹ COI path is rated at 4800 MW. CAISO BAA's share of this is 3200 MW while the rest is allocated to TANC and other non-CAISO members.

² Preliminary root cause analysis report can be found at:
<http://www.aiso.com/Documents/Preliminary-Root-Cause-Analysis-Rotating-Outages-August-2020.pdf>

transfer capability by approximately 650 MW and congested the usual import transmission paths across both COI and Nevada-Oregon Border (NOB)...”

As CAISO prepares its final recommendations for addressing reliability issues identified in the TPP, it should consider transmission solutions to resolve these thermal overload issues and not simply rely on operating solutions. LS Power’s proposed Southwest Intertie Project North (SWIP North) is potentially one such long-term transmission solution that can address several thermal overloads and provide a diverse path to California. SWIP North is comprised of a 500 kV transmission line from Midpoint substation to Robinson Summit substation. This line in conjunction with the One Nevada Transmission Line (ON Line), the jointly owned LS Power/NV Energy 500 kV line from Robinson Summit to Harry Allen, and the recently energized Harry Allen to Eldorado 500 kV line provides a parallel path to COI and Path 26. This offsets flows on these interfaces by approximately 300 to 400 MW based on power flow studies conducted by LS Power and provides a new 1000 MW transmission path between Idaho Power, NV Energy & CAISO. LS Power studied the effectiveness of SWIP North to address the Bulk system issues identified by CAISO staff and will be submitting its analysis to CAISO shortly. In the meantime, prior similar analysis submitted by LS Power in CAISO’s Transmission Planning cycles³ is available for review. These analyses demonstrate that SWIP North is very effective in alleviating and resolving several contingency overloads.

In light of the August and September 2020 heatwaves in California & throughout the west, California needs to reconsider its reliance on in state solar to meet current and future demand, and seriously consider if access to diverse renewable resources such as Idaho wind and hydro, Wyoming wind, and Nevada geothermal and hydro would be beneficial. The existing import paths into CAISO are constrained, so in order to unlock access to new diverse out of state renewable resources CAISO must consider new out-of-state transmission projects such as SWIP North. One such resource that is currently in development is Lava Ridge Wind, a 1050 MW wind project in Idaho being developed by an LS Power affiliate. This project has a planned in service date of June 2024. SWIP North is essentially a construction ready transmission project and can be in service by June 2024 if timely approved by CAISO. With the upcoming OTC retirements and planned shutdown of Diablo Canyon Power Plant starting 2024, there is over 5000 MW of projected system capacity shortage as identified by SCE and other LSEs as part of their IRP filings with CPUC⁴, and SWIP North can help fill some of this need. An additional benefit of SWIP North is that it allow CAISO to experience load diversity benefits. Not all regions in the West peak at the same time of the day, or even in the same operating season. Idaho Power, PacifiCorp West, BPA have load diversity with California which, if sufficient transmission capacity was available, would allow CAISO access existing resources from these regions. Today some of these resources cannot access CAISO markets due to congestion on existing import paths such as California Oregon Intertie (COI) and Pacific DC Intertie (PDCI).

LS Power encourages CAISO to consider permanent planning solutions such as one proposed above as it finalizes its 2020-21 Transmission Plan. Continuing to rely on

³ <http://www.caiso.com/Documents/LSPComments2014-2015TPPStakeholderMeetingPreliminaryReliabilityResultsPTOProposedSolution.pdf>

⁴ See SCE’s Integrated Resource Plan dated Sep 1, 2020 filed under CPUC IRP proceeding, Rule Making 20-05-003

operating solutions that reduce imports will not address the growing capacity shortage concerns and will only lead to more blackouts in the coming years.

(2) Wildfire Risk Mitigation studies

LS Power commends CAISO staff for running comprehensive studies to better understand wildfire risk mitigation issues. We understand that CAISO is still completing this analysis and will present additional studies in November. This study is a step in the right direction given the wildfire related impacts California has been witnessing for last several years. While CAISO has been currently focusing on completing the remaining analysis, we encourage CAISO to provide more details to the stakeholders with respect what next steps it plans to take with the study findings. Will CAISO come up with a proposal on which mitigations require new transmission additions? Will stakeholders get an opportunity to provide inputs on possible transmission solutions? Given the timing of the 2020-21 TPP process, if CAISO presents its analysis at the November stakeholder meeting, there may be a need to allow for additional stakeholder discussions on this important topic before CAISO publishes its draft transmission plan.

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