BAMx comments dated March 25, 2021
Submitted by email to: regionaltransmission@caiso.com

BAMx Comments on the California ISO (CAISO) 2022 and 2026 Draft Local Capacity Requirements

Introduction

The Bay Area Municipal Transmission group (BAMx)[1] appreciates the opportunity to comment on the CAISO 2022 and 2026 Draft Local Capacity Requirements (LCR) study results discussed during the March 11, 2021 stakeholder meeting. We continue to see positive enhancements to each year's LCR analysis and look forward to continuing to work with the CAISO to improve and refine the process.

BAMx Encourages CAISO's Use of Low-Cost Solutions for Higher Level Contingencies

The Draft 2021 and 2025 LCR study has identified P3 (*N-1*, *G-1*) and P6 (*N-1-1*) types of contingencies as a driver for the LCR needs in many LCR areas and subareas[2]. Per NERC and CAISO's planning standards, these types of contingencies allow for system readjustment between the first and the second outage. As explained in the 2022 study manual, the CAISO has used system readjustment and operating solutions to the extent possible for all known system readjustments and operating solutions for both category P3 and P6 events.[3]

In response to BAMx comments on the 2021-2025 Draft LCR, dated March 16, 2020, the CAISO had indicated "[It] is proactively working with the PTOs under both the planning and the operations departments to come up with new operating solutions and system readjustments measures to the extent feasible."[4] However, we continue to see that the same P3 and P6 contingencies that drove the 2021 and 2025 LCR needs continue to drive the 2022 and 2026 needs as part of the latest assessment.

We understand that the CAISO is open to some suggestions/proposals by the involved Participating Transmission Owners (PTO) and others but we believe the CAISO should also be proactive by systematically identifying operating procedures to potentially reduce the LCR needs. BAMx encourages the CAISO to take the lead role in developing these operating solutions.

BAMx recognizes that not all low-cost solutions like SPS or bus rearrangement can be economically justified based on LCR reduction due to the lack of corresponding cost reductions. For example, the CAISO considered the Metcalf 500-230 kV Transformers Dynamic Series Reactor Project in the 2020-2021 Transmission Planning Process as it would have provided some

[1] BAMx consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power.
[2] These LCR sub-areas and areas include Llagas, South Bay-Moss Landing, Oakland, Contra Costa, Greater Bay Area Overall, Humboldt, Eagle Rock, Fulton, North Coast-North Bay, Drum-Rio Oso, Gold Hill-Drum, South of Rio Oso, Lockeford, Stanislaus, Tesla-Bellota, Hanford, Coalinga, Panoche 115-70kV, Wilson 115kV, Herndon, Borden, Overall Fresno Area, Westpark, Kern Oil, Kern PP, South Kern, Vestal, Overall Big Creek-Ventura, Western LA Basin, San Diego Bulk, Overall San Diego-Imperial Valley, El Cajon.
[3] CAISO 2022 Local Capacity Requirement - Study Manual, January 15, 2021, pp.16-20.
[4] CAISO Stakeholder Comments Response Matrix, 2021 and 2025 Draft Local Capacity Technical Study Meeting Draft Results, March 16, 2020.

significant reduction in the Greater Bay Area requirement.[5] Although based on the latest publicly available 2018 RA prices, the CAISO determined that this particular project provided almost negligible LCR benefit for this area, BAMx encourages the CAISO to study such projects in future transmission planning cycles.

CAISO Needs to Demand that PTO's Complete Transmission Projects in Timely Fashion

BAMx observes that there is a common feature among some LCR areas, such as Sierra, Stockton and Kern where the 2026 LCR needs are expected to be higher than envisioned earlier due to delay in transmission projects in-service dates.[6] For example, the overall LCR requirement is higher due to delay in East Marysville 115/60 kV and the Gold Hill 230/115 Transformer projects in the Sierra local area.[7] BAMx notes that PG&E projects have had long implementation lead times in the range of 6 to 15 years.[8] Such delays are especially problematic from the ratepayer perspective. Not only do these project delays typically result in increased capital costs but also burden the load-serving entities with high LCR procurement costs.

BAMx urges the CAISO work with that the PTOs prioritize the reliability transmission projects with LCR reduction benefits and complete them in a timely manner.

Potential Storage Additions Calculations

BAMx applauds the CAISO's extensive efforts in putting together the analyses and graphs illustrating the comparison of the yearly load curves against the import capability of each sub-area and the peak day load profiles against the import capability. For each one of the LCR areas and sub-areas, the CAISO has also identified an approximate amount of storage that can be added to each subarea from a charging restriction perspective. However, no underlying calculations were provided on how the CAISO has derived these values.

BAMx understands that the CAISO utilized spreadsheets and techniques that were tailored to the different circumstances in the LCR areas. BAMx appreciates that this analysis will continue to evolve and be refined, as the storage charging estimates are informational only, considered preliminary, and will be refined in subsequent studies. For example, the CAISO has made substantial refinement to its last year's analysis by including the maximum 4-hour storage estimate for each sub-area and area.

BAMx notes that stakeholders continue to be unclear about the determination of storage sizes that can be added in the LCR sub-areas and how this data could be used to appropriately select and site battery storage. In our past comments, we had requested the CAISO to provide the

[5] CAISO 2020-2021 Transmission Plan, February 1, 2021, pp.316-317.
[6] CAISO 2022 & 26 Draft LCR Study Results Summary of Findings, March 11, 2021, slide #6.
[7] CAISO 2022 & 2026 Draft LCR Study Results, Sierra Area, March 11, 2021, slide #15.
[8] See SVP comments on the 2020-2021 TPP Study Plan, dated February 28, 2020, p.1. located at http://www.caiso.com/Documents/SVPComments-2020-2021TransmissionPlanningProcess-Feb282020StakeholderMeeting.pdf

underlying calculations used to obtain these values as well as any work-products, including spreadsheets used to calculate the charging capacity values for all the LCR subareas. If the CAISO is unwilling to provide the underlying calculations and spreadsheets[9], any additional documentation including a flowchart would be appreciated.

Conclusion

BAMx appreciates the opportunity to comment on the CAISO 2022 and 2026 Draft LCR study results. We hope to work with the CAISO staff to continue to improve and enhance its capabilities.

If you have any questions concerning these comments, please contact Paulo Apolinario (papolinario@svpower.com or (408) 615-6630).

[9] See BAMx Comments on the CAISO 2021and 2025Draft Local Capacity Requirements, dated March 30, 2020 located at http://www.caiso.com/Documents/BAMxComments-2021and2025DraftLocalCapacityRequirementsTechnicalStudyResults.pdf