# BAMx Comments on the California ISO (CAISO) 2021 and 2025 Draft Local Capacity Requirements

### **Introduction**

The Bay Area Municipal Transmission group (BAMx)<sup>1</sup> appreciates the opportunity to comment on the CAISO 2021 and 2025 Draft Local Capacity Requirements (LCR) study results discussed during the March 16, 2020 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.

# Need to Develop 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<sup>2</sup>. Per NERC and CAISO's planning standards, these types of contingencies allow for system readjustment between the first and the second outage. For LCR needs driven by P3 and P6 contingencies, BAMx requests the CAISO to proactively identify and review whether any operating solutions between the first and the second contingency could be implemented in order to reduce the identified LCR values. 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.

Additionally, some of the identified constraints could be mitigated with little capital costs using a load dropping Special Protection Scheme (SPS) or by reconfiguring a substation for a P2 type of outage. BAMx suggests the CAISO work with the PTO's to come up with mitigation options for the newly identified constraints as well as a cost estimate for each mitigation as part of this year's TPP process. The CAISO, with stakeholder input, could evaluate the tradeoffs of mitigating the constraint against keeping the generation in service via expanded RA procurement values.

### Possible Mitigations That Should be Investigated in the TPP

We suggest the investigation of the partial list of proposed mitigations in the table below. BAMx appreciates that the load dropping SPS's as potential mitigation measures need to be evaluated as part of the annual Transmission Planning Process (TPP) - however BAMx believes that operating solutions could be developed as interim mitigation for some cases listed below.

<sup>&</sup>lt;sup>1</sup> BAMx consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power.

<sup>&</sup>lt;sup>2</sup> 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.

#### BAMx comments dated March 30, 2020 Submitted by email to: regionaltransmission@caiso.com

Limiting Element	Contingency	LCR Area	Potential Operating Mitigation
Pengrove-Corona 115kV Line	Fulton-Lakeville and Fulton- Ignacio 230 kV lines (P6)	North Coast North Bay (Fulton Sub-Area)	A load Dropping SPS since North Coast/North Bay is a non-urban area
Tulucay – Vaca Dixon 230 kV Line	Lakeville 230 kV – Section 2E & 1E (P2.4)	North Coast-North Bay (NCNB)	Reconfigure Lakeville Substation or a load Dropping SPS since NCNB is a non-urban area
McCall-Kingsburg #2 115kV Line	McCall-Kingsburg #1 115kV line and Henrietta 230/115kV TB#3	Fresno: Hanford Sub-Area	A load Dropping SPS Since Hanford is a non-urban area
San Miguel-Coalinga 70kV Line and Voltage Instability	T-1/T-1: Gates 230/70kV TB #5 and Schindler 115/70 kV TB#1	Fresno: Coalinga Sub-Area	A load dropping SPS Since Coalinga is a non-urban area.
Kings River- SangerReedley 115kV line with Wahtoke load online	McCall-Reedley 115kV Line & Sanger-Reedley 115kV line (P6)	Fresno: Reedley Subarea	A load dropping SPS since Reedley is a non-urban area.
Five Points-Huron - Gates 70kV line	Panoche 230/115kV TB #2 and Panoche 230/115kV TB #4	Fresno: New Panoche 115- 70kV Sub Area	A load dropping SPS since Panoche 115-70kV Sub- Area Requirements is a non-urban area.
Herndon- Manchester 115 kV line	Herndon-Woodward 115 kV line and Herndon- Barton 115 kV line	Fresno: Herndon Sub-Area	A load dropping SPS since Herndon is a non-urban area.

# Additional Visibility into the Binding Constraint

The 2021 and 2025 Draft LCR study results were obtained by the CAISO using the new LCR study methodology that evaluates the LCR needs based on the most stringent of all NERC, WECC and CAISO mandatory standards<sup>3</sup>. During the CAISO's approval process of this change in LCR criteria, BAMx had submitted comments requesting that the CAISO provide the identified LCR needs using both the previously studied criteria and LCR needs identified under the updated study methodology<sup>4</sup>. Providing both values would afford decision-makers a better understanding of the tradeoffs between eliminating the newly identified constraint versus relying

<sup>&</sup>lt;sup>3</sup> Draft 2021 and 2025 Local Capacity Requirements: Overall Summary of Findings Slide 3

<sup>&</sup>lt;sup>4</sup> ISO Responses to Stakeholder Comments Updates to Local Capacity Technical Criteria Issue Paper July 18, 2019. Page 7 of 8.

on the local RA capacity. In its response, the CAISO had identified that "the ISO will highlight the difference in binding contingencies and magnitude of changes between criteria through the LCR study process."<sup>5</sup> Although this information was not presented during the March 16<sup>th</sup> stakeholder meeting, BAMx hopes to see the CAISO include information on the previously identified binding constraint in the LCR report. This would provide the stakeholders with a better understanding regarding the LCR reduction costs that could be mitigated by eliminating the identified constraint under the updated LCR technical criteria.

### **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 subarea and the peak day load profiles against the import capability.<sup>6</sup> For each one of the Greater Bay Subareas, 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 requests that the CAISO provide the 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.

# **Conclusion**

BAMx appreciates the opportunity to comment on the CAISO 2021 and 2025 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).

<sup>&</sup>lt;sup>5</sup> ISO Responses to Stakeholder Comments Updates to Local Capacity Technical Criteria Issue Paper July 18, 2019. Page 7 of 8.

<sup>&</sup>lt;sup>6</sup> Draft 2021 and 2025 Greater Bay Area LCR Presentation Slides 8, 12, 16, 20. So far, such analysis was performed only for the sub-areas within the Greater Bay Area (GBA) LCR area. We look forward to reviewing a similar analysis for all the LCR sub-areas within the remaining LCR areas.