

## **BAMx Comments on the Draft 2021-2022 Transmission Study Plan and Materials from the February 25, 2021 Stakeholder Meeting**

The Bay Area Municipal Transmission group (BAMx)<sup>1</sup> appreciates the opportunity to comment on the California Independent System Operator (CAISO) Draft 2021-2022 Transmission Planning Process (TPP) Unified Planning Assumption and Study Plan (Study Plan). The comments and questions below address the Study Plan posted on February 18, 2020 and as discussed during the February 25, 2021 stakeholder meeting. We continue to see positive enhancements being made to each year's plan and look forward to continuing to work with the CAISO to continuously improve the planning process.

### **Need for Continued Evaluation of the Previously Approved Projects**

BAMx applauds the significant progress that the CAISO made in the prior four planning cycles (2015-2019) in evaluating previously approved transmission projects. However, several projects still remain on hold.

While much work has been done to evaluate previously approved projects as a one-time effort, part of the next year's Study Plan should include a formal process to continually monitor such previously approved projects. During the February 25<sup>th</sup> stakeholder meeting, the CAISO had indicated that they would do such an assessment on a case-by-case basis in the 2020-2021 cycle. We understand that some of the previously approved projects would continue to be needed given the load growth in certain areas and the need for those transmission projects given their effectiveness in addressing the wildfire impacts. However, that might not be the case for all previously approved projects.

We recommend that the monitoring of the previously approved projects should include at least two aspects going forward. First, until the project starts construction it should be monitored to determine if there have been changes that would impact the project necessity and scope. While all approved projects should be monitored, special emphasis should be targeted for those that have been delayed beyond their initially proposed on-line dates, as well as those with on-line dates during the second half of the planning horizon. Secondly, stakeholders are seeing tremendous and chronic cost escalation after a transmission project is approved by the CAISO, at times up to 900%. This historic escalation appears to have had nothing to do with the mitigation of the risk of transmission lines causing wildfires. Such cost increases can materially impact the selection of the preferred alternative or overall scope of work. Therefore, if a project is expected to cost significantly more than when it was originally approved, it should cause an automatic re-assessment to determine whether it is still the best alternative to mitigate the reliability criteria violation.

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

## **Generation Retirements**

In the past few TPP cycles, the CAISO has been assuming an arbitrary retirement of generating resources aged 40 years or more. In the Study Plan, the CAISO has indicated that it will not assume retirement based on a resource aged 40 years or more in order to align with the latest CPUC portfolio information. Since age is only one indicator of the continued viability of a generator, BAMx supports this generation retirement assumption. If a generator plays a key role from the reliability standpoint, alternatives to retirement should be investigated.

## **Need Transparency in Generation Redispatch**

The CAISO has identified that *PowerGem TARA* software is used for conducting steady-state contingency analysis<sup>2</sup>. For Category P3 and P6 types of contingencies, a system readjustment is performed between the first and second contingency<sup>3</sup>. BAMx requests the CAISO to post the *Excel* spreadsheets used by TARA software identifying the generators used for system adjustment for such analysis to the CAISO's secured portal. This data will provide additional clarity on the analysis and allow stakeholders to replicate the analysis, facilitating more meaningful feedback.

## **Locational Guidance, Effectiveness, and Duration of Battery Storage Resources**

BAMx has been promoting the remapping of battery storage to a highly congested area with high renewable curtailment as this can help to reduce congestion and renewable curtailment.<sup>4</sup> The CAISO's past comprehensive battery re-mapping studies<sup>5</sup> have demonstrated not only that transmission congestion and renewable curtailment can be further reduced by remapping or allocating battery to constrained areas, but also that the latter is more effective than the transmission alternatives.<sup>6</sup> This lesson learned is important for studying all resource portfolios and scenarios going forward. In other words, it is pertinent to perform an additional layer of analysis to check whether any transmission upgrades triggered by a given resource portfolio could be eliminated or scoped differently by remapping the renewable and battery storage resources. We encourage the CAISO to have such processes built-in as it performs the policy-driven and economic assessments in the 2021-2022 TPP cycle.

In the past, whether battery storage is sufficient to mitigate the reliability need, the CAISO typically has considered four-hour battery storage.<sup>7</sup> So, if a six-hour battery storage project could

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<sup>2</sup> Draft 2021-2022 Study Plan, Page 51

<sup>3</sup> Reliability Assessment Unified Planning Assumptions & Study Plan, February 25<sup>th</sup> Stakeholder Meeting, slides 26-27.

<sup>4</sup> BAMx Comments on the CAISO 2020-2021 Transmission Plan Stakeholder Presentation Materials from November 17, 2020, December 1, 2020.

<sup>5</sup> "Economic Assessment and Production Cost Simulation," Draft 2020-2021 Transmission Plan, 2020-2021 Transmission Planning Process Stakeholder Meeting, February 9, 2021.

<sup>6</sup> 2020-2021 Draft Plan, pp. 224-232.

<sup>7</sup> For example, Reliability Assessment Recommendation -SDG&E Area Draft 2020-2021 Transmission Plan, 2020-2021 Transmission Planning Process Stakeholder Meeting, February 9, 2021.

mitigate a particular reliability violation, the additional cost of the two-hour storage is then compared to the cost of a competing transmission project. Instead, BAMx suggests that the CAISO should consider whether additional four-hour storage could be effective as an alternative mitigation to the transmission while obeying charging restrictions. This approach would be consistent with the CPUC recommendation of including only the “incremental” interconnection cost<sup>8</sup> and not the full capital cost of the energy storage projects that are otherwise needed for system capacity purposes according to the CPUC-provided resource portfolios.

### **Wildfire Impact Assessment**

The CAISO as part of the 2020-2021 TPP conducted studies to assess the impact of various Public Safety Power Shutoff (PSPS) scenarios in the PG&E area. BAMx applauds those efforts. As BAMx has previously observed, a distribution-connected load may automatically be dropped due to the assumptions in the PSPS or wildfire event being studied.<sup>9</sup> In any case, such load reduction should be taken into account. BAMx encourages the CAISO to work with SCE and SDG&E to also take into account plausible distribution circuit interruptions in its wildfire mitigation assessments of the SCE and SDG&E areas as part of the 2021-2022 TPP.

BAMx also encourages the CAISO to continue to work with PG&E to investigate 2020 PSPS events that have occurred. We expect that such an effort should not be overly burdensome as it builds on the work just completed as part of the 2020-2021 Transmission Plan. We hope that this effort could be undertaken as part of the 2021-2022 TPP scope.

### **Conclusion**

BAMx appreciates the opportunity to comment on the draft Study Plan. BAMx would also like to acknowledge the significant effort of the CAISO staff in developing the Study Plan to date, as well as the CAISO staff’s willingness to work with the stakeholders in the process of developing the Study Plan. We hope to work with the CAISO staff to continue to improve and enhance the Study Plan.

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

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<sup>8</sup> See CPUC Staff Report: Modeling Assumptions for the 2020-2021 Transmission Planning Process Release 1 (TPP Base Portfolios), February 21, 2020, p.14,

<sup>9</sup> See the BAMx Comments on the Draft 2020-2021 Transmission Plan and Materials from the February 9, 2021 Stakeholder Meeting, dated February 23, 2021/