

BAMx Comments on the CAISO 2020-21 Transmission Planning Process Stakeholder Meeting

The Bay Area Municipal Transmission group (BAMx)¹ appreciates the opportunity to comment on the California Independent System Operator (CAISO) second stakeholder meeting as part of the 2020-21 Transmission Planning Process (TPP). The comments and questions below address the topics discussed during the June 3, 2020 stakeholder call.

Wildfire Mitigation Assessment Update

The California IOUs are utilizing Public Safety Power Shutoff (PSPS) procedures as a preventive measure in order to keep the powerlines from causing additional wildfires. In its comments on March 13, 2020, BAMx had urged the CAISO to conduct planning studies on transmission-related Public Safety Power Shutoff (PSPS) events in advance of the 2020 fire season. In particular, BAMx requested the CAISO to include PSPS planning studies in its 2020-2021 transmission planning cycle which provides a well-established process for stakeholder engagement, review, and feedback. Although the CAISO does not plan to conduct the studies BAMx has been seeking prior to the upcoming 2020 fire season, BAMx supports the CAISO's proposed plans to conduct a wildfire mitigation assessment as part of the 2020-2021 TPP.²

BAMx Supports SDG&E Area Sub-transmission Project Re-evaluation

The CAISO indicated that it plans to re-evaluate six (6) previously-approved sub-transmission projects on the non-Bulk Electric System (BES) that have been delayed beyond 2025.³ BAMx acknowledges that this approach is consistent with the CAISO's review of previously approved projects in the Pacific Gas and Electric Company (PG&E) area beginning with the 2016-2017 transmission planning process (TPP).⁴ CAISO's past efforts resulted in over \$3.25 billion savings in capital costs due to project cancellations and scope reductions. While reviewing all the transmission projects represented a significant commitment of engineering resources, the resultant savings for transmission system users was simply enormous. For instance, BAMx estimates that a reduction in \$3.25 billion of capital expenditure, the majority of which is associated with the low voltage transmission facilities, would reduce the PG&E-specific low voltage transmission access charge (LV TAC) by approximately \$3.25-\$3.75/MWh in 2025.

BAMx, therefore, supports the reevaluation of the above-mentioned six projects and the CAISO's decision not to model them in the 2020-2021 TPP power flow cases.

BAMx Supports Storage Mapping and Resource Retirement in Policy Assessment

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

² Wildfire Mitigation Assessment Update, 2020-2021 Transmission Planning Process Stakeholder Meeting June 3, 2020, pp. 1-9.

³ SDG&E Are Sub-transmission Project Re-evaluation, 2020-2021 Transmission Planning Process Stakeholder Meeting, June 03, 2020, p.23-24.

⁴ CAISO 2016-2017 Transmission Plan, March 17, 2017, pp.3,5,15.

With a large amount of energy storage expected to interconnect to the CAISO network within the foreseeable future, it is very important to identify locations where these storage resources will provide the most benefit by taking into account the reliability needs of the CAISO operated transmission system. The storage projects will require a large amount of capital investment. Although one of the simplest ways for developers to interconnect storage projects may be within the proximity of existing generation, these locations might not coincide with locations where the storage could provide the most benefits, such as reducing the need for the new transmission, LCR reduction, allowing for the retirement and/or reduction of the operation of gas-fired generation, etc. It is critical that in addition to providing the updated zonal transmission capability estimates, the CAISO needs to play a key role in helping the CPUC and the California Energy Commission (CEC) in identifying appropriate locations and types of storage resources.

As recommended by both the CPUC and the CAISO, BAMx supports studying the use of storage as a mitigation measure without including the full capital cost. As reflected in the Commission-provided base portfolio, the Load Serving Entities (LSEs) are expected to procure a very large amount of storage to serve the system resource needs. We assume that at least a part of that procurement will be in local areas and sub-areas. Since the LSEs are expected to bear the cost of such procurement, there is no need to consider its full capital cost while comparing it with other mitigation alternatives. Having said that, BAMx understands that the CAISO should include the incremental costs⁵ associated with the candidate energy storage options.

BAMx understands that the storage mapping in the base portfolio is handled differently from storage mapping in sensitivity portfolios. In particular, CPUC staff did not map generic battery storage to specific locations. Rather, CPUC staff wants the CAISO to retain the flexibility necessary to apply the storage where it provides value that can be clearly identified through the TPP.⁶ For the two sensitivity portfolios, i.e., SENS-01 and SENS-02, we understand the CAISO will utilize the CPUC's mapping as a starting point and then refine the mapped locations. Storage mapping recommended by the CPUC is driven by commercial interest, project status and location. Specifically, CPUC staff assigned confidence levels based on generator status, interconnection agreement status and LCR area information. BAMx is concerned that the storage candidate capacity selected for the sensitivity portfolios in the LCR areas is restricted based upon their commercial interest status, i.e., Phase II Generator Interconnection Deliverability Allocation Procedures (GIDAP) completed study or the Material Modification Assessment (MMA) addition to an existing generating facility.⁷ This means that several storage projects in the generation interconnection queue located in the LCR areas that could be very effective in mitigating reliability needs may not be selected as they have not met this particular criterion. Until recently, there has not been any historical signal for the storage developers to identify high-

⁵ One example of the incremental cost is the additional cost incurred for siting the storage in a particular local area versus locating it elsewhere. Another option is for CAISO to only include site-specific information on the incremental interconnection cost of battery storage.

⁶ Storage mapping and resource retirement in policy assessment, CAISO, Sushant Barave, Senior Advisor, June 03, 2020, p.4.

⁷ CPUC Staff Report: Modeling Assumptions for the 2020-2021 Transmission Planning Process Release 2 (TPP Sensitivity Portfolios), CPUC Energy Division, March 30, 2020.

value locations. With the analysis conducted as part of the current TPP cycle, more guidance on high-valued storage locations is expected to be available. Therefore, the CAISO needs to retain the flexibility to map storage resources in local areas to address reliability issues even if they have not, at this time, strictly met the generation interconnection queue threshold. We believe that this approach would be consistent with the approach the CPUC staff has asked the CAISO to take for the base portfolio, i.e., to apply the storage where it provides the greatest value that can be clearly identified through the TPP, presumably regardless of its generation interconnection queue status.

During the June 3rd stakeholder call, the CAISO laid out an example of storage mapping refinement that would be driven by retirement assumptions and charging limitations in local (LCR) areas.⁸ This approach takes into consideration the storage charging limitations of a given LCR area, and whether the added storage resource can effectively facilitate the retirement of the existing local gas-fired generation. BAMx supports this approach, as it retains gas-fired generation if it cannot be replaced with battery storage given the charging limitations.

The current CAISO-proposed schedule is to provide the preliminary results based upon refined storage mapping in the November 17, 2020 meeting. BAMx urges the CAISO to provide its preliminary storage mapping for the base portfolio and two sensitivity portfolios during the September 23-24, 2020 meeting. This would allow the CAISO adequate time to incorporate the stakeholder feedback into the results presented in the November 17, 2020 meeting.

Questions on Interregional Transmission Project (ITP) Mid-year update

BAMx has several questions based upon its review of the Interregional Transmission Project (ITP) mid-year update that was provided during the June 3rd meeting⁹ and the final ITP evaluation process plans submitted to the CAISO during the 2020-2021 ITP submission period that were posted on June 12, 2020.¹⁰ Below we list those questions:

1. **Economic/Production Cost Model:** ITP Evaluation Process Plans indicate that the Economic/Production Cost Model deployed for evaluating the ITPs will utilize the “PCM Base Case, based on the WECC 2030 Anchor Data Set (ADS)” and will be “modified as needed to accurately model the California network and resources that reflects the ISO’s finalized 2019-2020 transmission plan.” Does this mean that the PCM base case for the ITP evaluation in the 2020-2021 TPP will utilize the California Public Utilities Commission (CPUC)-provided renewable resource portfolios utilized in the 2019-2020 transmission plan? If that is the case, please explain why the latest base renewable resource portfolio, i.e., 2018 Updated PSP¹¹ provided for the 2020-2021 TPP, will not be utilized.

⁸ Storage mapping and resource retirement in policy assessment, CAISO, Sushant Barave, Senior Advisor, June 03, 2020, p.7.

⁹ Interregional Transmission Project (ITP) Mid-year update, Gary DeShazo, 2020-2021 Transmission Planning Process Stakeholder Meeting, June 3, 2020, pp.1-9.

¹⁰ <http://www.caiso.com/Documents/2020-2021InterregionalTransmissionProjectEvaluationProcessPlans.html>

¹¹ <ftp://ftp.cpuc.ca.gov/energy/modeling/DashboardBUSBARALLOCATION2018PSP-2020-02-26.xlsx>

2. **Cost Assumptions:** BAMx noticed that except for the Southwest Intertie Project (SWIP)-North project, the remaining three ITPs have their planning level cost estimates available.¹² How does the CAISO plan to provide its cost for planning purposes allocated to the CAISO planning region to stakeholders, i.e., [California ISO Benefits/Total Benefits] times Project Cost for the SWIP-North project, in the absence of the estimated project cost? Does the CAISO plan to perform an independent assessment of the reasonableness of the ITP cost as opposed to purely relying on the developer-provided planning cost estimates? BAMx requests the CAISO to provide the ITP cost estimates to the CPUC so that the CPUC staff could update these transmission costs in the RESOLVE model that is used to develop the renewable portfolios.
3. **Benefit-Cost Calculations:** For planning purposes, each Relevant Planning Region's cost share of a given ITP will be calculated based on its share of the calculated benefits provided to the Region by that ITP. Would these benefits be solely based on the economic production cost analysis? If so, what role, if any, would the reliability/power flow assessment play in the determination of any relevant planning region funding a portion of the ITP cost?

Conclusion

BAMx appreciates the opportunity to comment on the additional stakeholder meeting. BAMx would also like to acknowledge the CAISO staff's willingness to work with the stakeholders. We hope to work with the CAISO staff to continue to improve and enhance the 2020-2021 Transmission Plan.

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

¹² The project cost data in the SWIP-North submittal form was marked as "Privileged information not to be released" and therefore was redacted from the ITP Evaluation Process Plan shared with the stakeholders.