BAMx comments dated November 19, 2018
Submitted by email to: regionaltransmission@caiso.com

BAMx Comments on the CAISO Transmission Access Forecasting Model

Introduction and Stakeholder Review

The Bay Area Municipal Transmission group (BAMx)[1] appreciates the continued work of the CAISO in keeping the stakeholders updated about the likely impact of its decision to approve transmission projects on the High Voltage (HV) Transmission Access Charge (TAC). So far, the PTOs have not followed the CAISO's lead in developing their own utility-specific Low Voltage TAC forecasts, however we hope they do so going forward. The CAISO's decisions with respect to capital transmission projects whose costs are recovered through the LV TAC have also contributed significantly to the rapidly growing PG&E LV TAC.

BAMx wants to emphasize the importance of having a forecast and robust discussion of the forecast for all entities paying the TAC charges administered by the CAISO. It appears to us that the CAISO, in the past, has wanted to focus on the role that its approval of transmission projects plays in affecting the HV TAC charges. But forecasts of all components of TAC charges is extremely important to improve/allow reasonable budgeting efforts by a growing set of suppliers of electric service to customers of entities that take transmission service from the CAISO. We urge the CAISO to recognize the value of focusing on that additional aspect of its efforts in this area. Charges for transmission service have grown to be a significant component of the cost to supply service to ultimate electric consumers. The fact that some of the components of a forecast of total TAC charges are not influenced by CAISO decisions should not be the reason to not have the CAISO lead a robust forecasting effort for all TAC components.

With the above in mind, BAMx appreciates the opportunity to comment on the CAISO's 2017-2018 HV TAC Estimating Model ("TAC Model" hereafter) that was posted on the CAISO website on November 2, 2018, and which was subsequently discussed during the Stakeholder call on November 5, 2018. The comments and suggestions below address both the TAC Model and the November 5th stakeholder presentation. We hope that the CAISO addresses the issues raised by BAMx in the next update of its TAC Model.

Proposed Suggestions for the Current Version of TAC Model for CAISO's Consideration

BAMx comments on the TAC Model cover the following elements:

1. Need to adequately capture the impact of PTO transmission projects on HV TAC that are not subject to the CAISO review/approval.
2. Caveat TAC forecast as it does not provide an accurate signal for the outer years, i.e., 2024-2029, and Corrections for Some Potential Data Discrepancies.

1. Accounting for All Drivers of the HV TAC

In the 2017-2018 Transmission plan, the CAISO provided a representation of just the incremental impact of the capital expenditures on CAISO-approved projects. Although this

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

representation is informative, as we elaborate below, it does not provide the complete picture of the overall HV TAC trajectory. We believe that it is a worthy goal to also improve the accuracy of the forecast related to that transmission work that is not reviewed as part of the CAISO Transmission Planning Process (TPP). BAMx agrees that there is considerable uncertainty in the components of Transmission Revenue Balancing Account (TRBAA), such as non-CAISO capital, O&M cost escalation rate, HV TRBAA escalation and HV Standby Credit escalation. However, simply removing the effects of these TRBAA components would not be very helpful for the stakeholders in terms of accurately assessing the impacts of growing TAC rates. BAMx encourages the CAISO to engage additional resources to develop a TAC forecast that would help its balancing authority area participants to plan, budget and make informed decisions regarding the allocation of their resources.

There are many capital projects that are rolled into PTO transmission revenue requirements that are not subject to the CAISO review or approval. When the TAC Model starts to build the TAC projections with the existing HV base TRR, it incorporates all of the PTO's revenue requirements, including all projects that need the CAISO's approval and those which do not require the CAISO's approval. However, the CAISO future HV TRR projections take into account only the "selected" major capital projects that are approved by the CAISO. The CAISO uses a capital maintenance adder estimated at 2% of gross plant per year as a proxy to incorporate capital "replacements" that are not subject to the CAISO approval.

The 2% Capital Maintenance (% of Gross Plant) rate results in the annual increase in the CAISO-wide HV Gross Plant of approximately $313 million.[2] In order to determine the reasonableness of using the 2% of Gross Plant as a proxy for the capital replacement expenditures going forward for the purpose it serves, in the past we have urged the CAISO to work with the PTOs to provide a more transparent way to estimate the capital costs associated with "replacement" projects. In our comments on the 2016-2017 TAC Estimating model, we provided the data to support our observation that 2% of Gross Plant amount does not adequately capture the HV portion of capital expenditure associated with projects that are not subject to the CAISO approval. In those comments, we also pointed out that the assumption of O&M costs escalating at 2% per year might result in an underestimation of the O&M costs based upon the historical guidance. We, therefore, request the CAISO to revisit the **2%** annual O&M escalation rate assumption going forward.

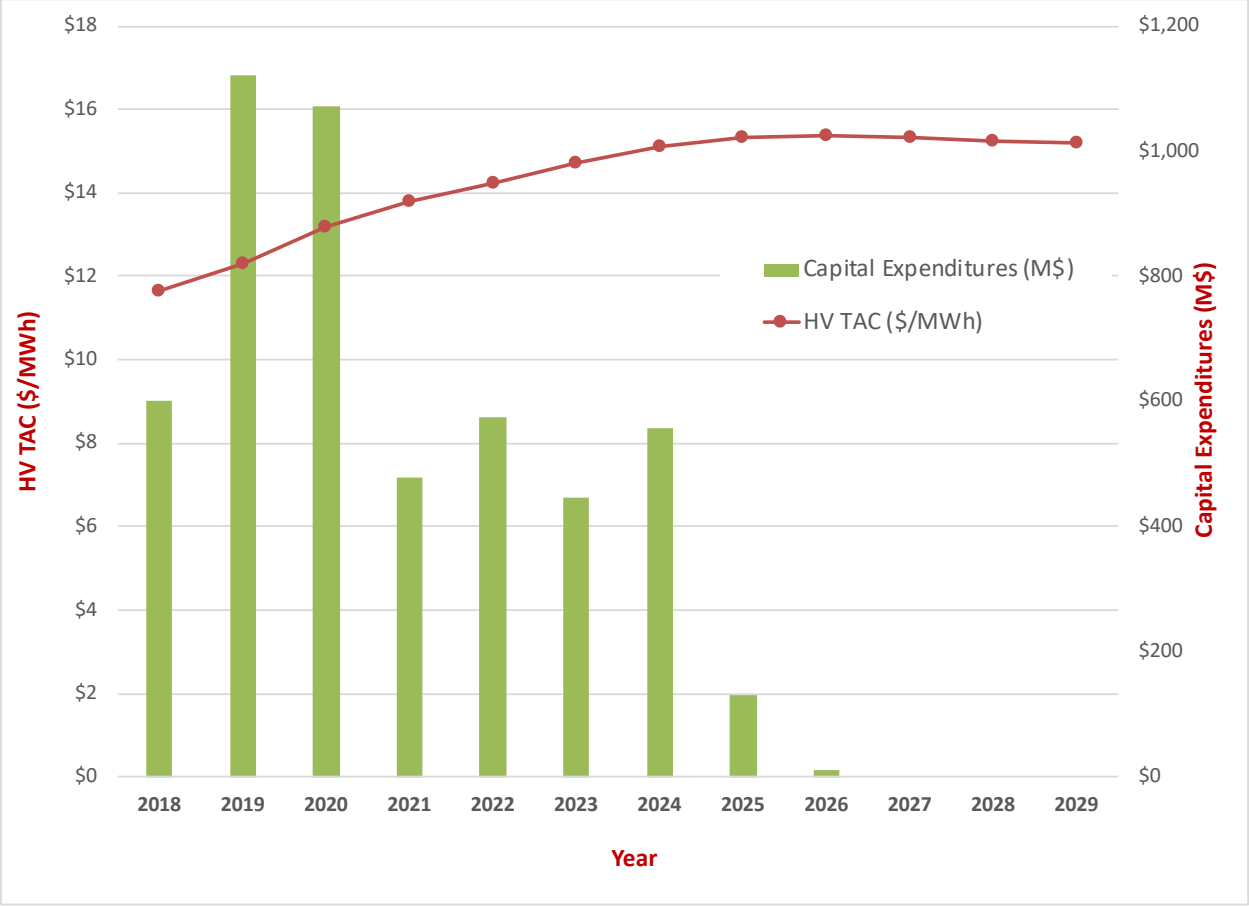
2. Caveat TAC forecast as it does not provide an accurate signal for the outer years, i.e., 2024-2029, and Corrections for Some Potential Data Discrepancies

BAMx notes that the tapering off of the CAISO's HV TAC forecast in the outer years, that is, during 2025-2029 is primarily driven by the very low levels of transmission capital expenditures assumed in the HV TAC forecasting model. As shown in Figure 1, the HV TAC forecasting

[2] When we switched the capital maintenance (replacement) rate from 2% to 0% in the TAC Model, the total HV TRR associated with the "Existing Facilities" in 2025 dropped by approximately $313 million. In other words, the TAC model assumes that the impact of the transmission projects that are not subject to the CAISO approval during the period of 2018 through 2025 on the HV TRR is $313 million.

model assumes that the HV capital expenditures[3] during the years 2024-2029, which are primarily driven by the CAISO-approved reliability driven transmission projects. Although the CAISO's November 5th presentation (slide #6) indicates that reliability projects are not assumed to drop below $250 million per year, the 2017-18 TAC model assumes these costs will be well below $250 million beginning year 2025 (as can be observed from Figure 1 below). BAMx requests the CAISO to correct these capital expenditures amounts in the TAC model.

Figure 1: A Comparison of the CAISO's HV TAC ($/MWh) and Assumed Capital Expenditures (M$)



Clearly, one of the major reasons for a lower level of capital expenditures assumed in the outer years (2024-2029) in the TAC Forecasting Model is that they do not include the capital expenditures in the CAISO's upcoming TPP cycles. In other words, the HV TAC rates, especially for years 2025-2029, are likely going to be higher than those depicted in the current version of the HV TAC Forecasting Model.

[3] Any capital expenditures after the in-service year are added to rate base in the year of expenditure in the HV TAC forecasting model. **Source:** California ISO TAC Model Operating Instructions.

BAMx appreciates the CAISO providing a separate spreadsheet comprising the capital costs documented for several capital projects with high voltage components[4]. This spreadsheet (Capital Costs Estimates) would help the CAISO and the stakeholders to easily modify the transmission projects, their commercial operation dates and related capital costs going forward. We noticed that the capital costs for some projects have been updated in the 2017-2018 TAC Model relative to those reported in 2016-2017 Model as summarized in Table 1 below.

Table 1: A Comparison of the High Voltage Transmission Access Charge Capital Costs ($ millions - current dollars) for Selected Projects

Project Name	2016-17 TAC Model	2017-18 TAC Model
Tehachapi Transmission Project	$ 3,135	$ 3,057
West of Devers Reconductoring	$ 1,273	$ 1,187
Colorado River Substation Expansion	$ 63	$ 134

Please provide further explanations for the decline in the capital costs for the Tehachapi Transmission Project and West of Devers Reconductoring, and also the increase in the capital costs for the Colorado River Substation Expansion.

BAMx looks forward to continuing the dialog with the CAISO staff and other stakeholders in trying to build a more meaningful forecast of the CAISO HV TAC.

If you have any questions concerning these comments, please contact Moisés Melgoza (mmelgoza@svpower.com or (408) 615-6656).

[4] 2017-2018 Transmission Plan High Voltage Transmission Access Charge Capital Costs (***2017-2018TransmissionAccessCharge-HighVoltageCapitalCostEstimates.xlsx***)