

The ISO received comments on the topics discussed at the May 17, 2019 stakeholder call from the following:

1. [Bay Area Municipal Transmission \(BAMx\)](#)

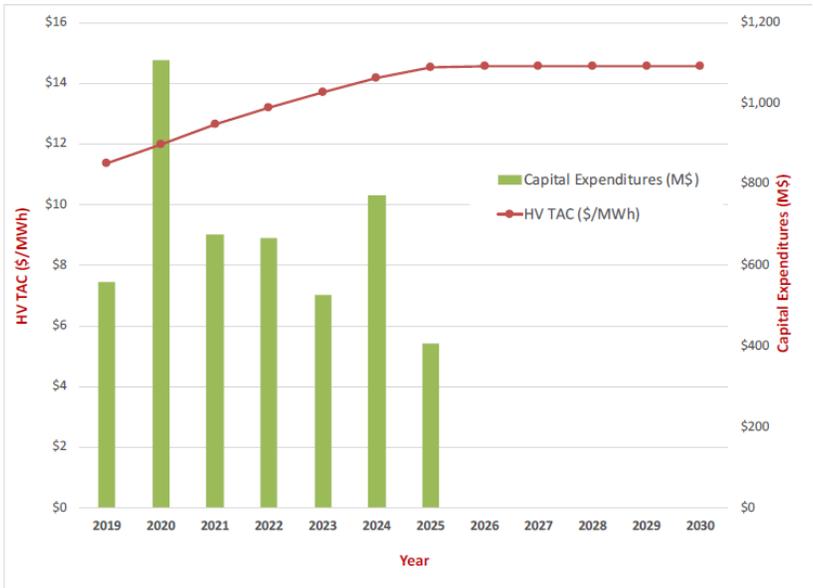
Copies of the comments submitted are located on the Transmission Planning Process page at:

<http://www.caiso.com/planning/Pages/TransmissionPlanning/Default.aspx>

The following are the ISO's responses to the comments.

1. Bay Area Municipal Transmission (BAMx)
Submitted by: Moise Melgoza

No	Comment Submitted	CAISO Response
2a	<p>1. The TAC model requires some "clean-up" The "Summary" tab of the TAC model spreadsheet has a number of "#REF!" errors.² These are attributed to removing some older projects, such as South CC and CW-Lugo without removing the underlying references associated with the HV Gross Plant, HV Rate Base and Operations and Maintenance Costs. Along with these comments, we submit a corrected version of the TAC model (2018-2019TransmissionAccessChargeForecastModel-NewCapital_BAMx.xlsx) with the appropriate fixes to address the "#REF!" errors for the CAISO's consideration.</p>	<p>Thank you for your comment. The model has been updated and posted to remove the "#REF!" errors.</p>
2b	<p>2. Caveat TAC forecast as it does not provide an accurate signal for the outer years, i.e., 2024-2029, and does not address additional wildfire mitigation costs BAMx notes that the tapering of the CAISO's HV TAC forecast in the outer years, that is, during 2026-2030 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 model assumes that the HV capital expenditures during the years 2023-2026, which is primarily driven by the CAISO-approved reliability driven transmission projects.</p>	<p>The model is geared towards forecasting the impact on HV TAC due to the ISO approved transmission projects. The goal of this model is not to perform estimates of the impacts of other costs that are not part of the ISO planning process, including wild fire mitigation costs that can be categorized as O&M costs. We have been keeping our annual O&M cost escalation to 2% based on the feedback received from the PTOs. The ISO can reach out to PTOs again to check the relevance of this assumption for the future models. In regards to the reasons for a lower level of capital expenditures assumed in the outer years, the ISO has been over the last two years models including only the cost of approved transmission projects.</p>

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	<p style="text-align: center;">Figure 1: A Comparison of the CAISO's HV TAC (\$/MWh) and Assumed Capital Expenditures (M\$)</p>  <table border="1" data-bbox="289 337 1102 925"> <caption>Data for Figure 1: HV TAC and Capital Expenditures</caption> <thead> <tr> <th>Year</th> <th>Capital Expenditures (M\$)</th> <th>HV TAC (\$/MWh)</th> </tr> </thead> <tbody> <tr><td>2019</td><td>550</td><td>11.5</td></tr> <tr><td>2020</td><td>1100</td><td>12.0</td></tr> <tr><td>2021</td><td>900</td><td>12.5</td></tr> <tr><td>2022</td><td>880</td><td>13.0</td></tr> <tr><td>2023</td><td>700</td><td>13.5</td></tr> <tr><td>2024</td><td>1050</td><td>14.0</td></tr> <tr><td>2025</td><td>400</td><td>14.5</td></tr> <tr><td>2026</td><td>0</td><td>14.5</td></tr> <tr><td>2027</td><td>0</td><td>14.5</td></tr> <tr><td>2028</td><td>0</td><td>14.5</td></tr> <tr><td>2029</td><td>0</td><td>14.5</td></tr> <tr><td>2030</td><td>0</td><td>14.5</td></tr> </tbody> </table> <p>Clearly, one of the major reasons for a lower level of capital expenditures assumed in the outer years (2026-2030) 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 2026-2030 are likely going to be higher than those depicted in the current version of the HV TAC Forecasting Model. Furthermore, there needs to be a recognition that the HV TAC rates would be significantly greater upon the incorporation of the direct costs associated with wildfire mitigation programs and potential higher return on equity allowed for the participating transmission owners as a result of wildfire risk adder.</p> <p>There is substantial uncertainty surrounding the plans for costs associated with greater levels of return on equity and future investments to mitigate the consequences of wildfires but it is appropriate to include components for those items. It is important to recognize that not adding anything to the forecast for those issues is a projection that assumes that they will have no impact.</p>	Year	Capital Expenditures (M\$)	HV TAC (\$/MWh)	2019	550	11.5	2020	1100	12.0	2021	900	12.5	2022	880	13.0	2023	700	13.5	2024	1050	14.0	2025	400	14.5	2026	0	14.5	2027	0	14.5	2028	0	14.5	2029	0	14.5	2030	0	14.5	
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	<p>BAMx appreciates the CAISO providing a separate spreadsheet comprising the capital costs documented for several capital projects with high voltage components⁶. 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.</p>	
2c	<p>3. Capital projects questions In addition to the issues surrounding costs for wildfire mitigation and potential increases in return on equity, BAMx has the following questions and comments on some of the capital transmission projects included in the TAC Model. We hope that the CAISO addresses them in the next revision of the TAC Model.</p> <ul style="list-style-type: none"> • West of Devers Reconductoring: BAMx understands that the West of Devers Reconductoring (WoD) project is currently under construction. However, there are no capital expenditures associated with this project in 2019. Please verify that it was not inadvertently left out. • Calcite: In the most recent TAC Model, the CAISO has added two new transmission projects, i.e., Red Bluff 2nd 'AA' Bank and Calcite. Both these projects are identified as the "Non-RTPP Driven." Please provide some background on the Calcite project as it appears to be a generation interconnection driven project and unlike the West of Devers Reconductoring project, there is almost no information available about this project in the 2018-2019 or any of the prior transmission plans. • Riverside Transmission Reliability Project (RTRP): We noticed that the TAC model did not include the capital expenditure associated with Riverside Transmission Reliability Project (formerly Jurupa 230kV Sub). According to SCE's AB 970 quarterly report (Q2 2019), this project was approved by the CAISO in 2007 with a current planned in-service date of 7/1/2023. A certificate of public convenience and necessity (CPCN) is underway for this project and has a capital cost in the range of \$401M - \$500M. Please provide an explanation of why the capital expenditures associated with the RTRP were excluded from the TAC Model. 	<p>West of Devers Reconductoring: The 2019 costs are already captured in the "Already reflected in rates" column.</p> <p>Calcite: Both the new projects have come through the generation interconnection process. Please refer to interconnection area reports posted on the ISO market participant portal for details.</p> <p>RTRP: The cost of RTRP project is captured in the "Method of service for Wildlife 230/66 kV Substation" project. This new name will be added for clarity in next year's model.</p> <p>Delaney-Colorado River Project: The in-service date used in the TAC model are based on the 2018-19 ISO Transmission Plan dates. The TAC models will capture any expected delays once the dates in the Transmission Plan are updated based on the latest information.</p>



No	Comment Submitted	CAISO Response
	<ul style="list-style-type: none"><li data-bbox="285 272 1121 402">Delaney-Colorado River: The TAC model assumes the capital expenditure of \$190M each in the years 2019 and 2020 for this project. Since it is expected to be delayed at least through December 2021, why weren't these capital expenditures also postponed in the TAC Model?	



***Stakeholder Comments
2018-2019 Transmission Planning Process Stakeholder Call
High Voltage TAC Estimating Model
May 17, 2019***