

BAMx Comments on the CAISO's White Paper on the Transmission Capability Estimates as an input to the CPUC Integrated Resource Plan Portfolio Development

Introduction and Stakeholder Understanding

The Bay Area Municipal Transmission group (BAMx)¹ appreciates the CAISO's responsiveness to stakeholder requests for more information on how it develops its transmission capability estimates² as an input to the CPUC Integrated Resource Plan (IRP) resource portfolio development. BAMx appreciates the opportunity to comment on the CAISO's White Paper on this topic ("White Paper" hereafter) that was posted on the CAISO website on May 20, 2019, and which was subsequently discussed during the Stakeholder call on May 28, 2019. The White Paper has certainly provided stakeholders with a better understanding of the transmission constraints potentially limiting renewable resource development. The comments and suggestions below address both the White Paper and the May 28th stakeholder presentation. We hope that the CAISO addresses the issues raised by BAMx in the current and subsequent transmission planning cycles.

BAMx Suggestions

BAMx comments on the White Paper cover the following two (2) elements:

1. Timing and Frequency of Updates and Stakeholder Involvement; and
2. Need to Delay Major Transmission Approval Decisions Under Changing Environment.

1. Stakeholder Involvement, and Timing and Frequency of Updates

BAMx appreciates the CAISO's description of the steps involved in transmission capability estimation and how these estimates are used to assist the CPUC and the California Energy Commission (CEC) in developing the renewable portfolios used in the CPUC's IRP process and the CAISO's annual Transmission Planning Process (TPP). BAMx welcomes the CAISO's due diligence in providing the CPUC with updated transmission capability amounts as well as renewable resource location selections (or, resource mapping) for developing the portfolio for the 2019-2020 TPP, which would help avoid artificial transmission congestion/overload issues that were found in the 2018-2019 TPP.

Although the White paper has alleviated many of BAMx's concerns about the lack of transparency into the resource mapping aspect of the feedback loop between the CPUC IRP and the CAISO TPP, we believe that the stakeholders need to have an adequate opportunity to review and provide input into the resource mapping process. BAMx expects several resource mapping issues could be discovered as the CAISO and the stakeholders alike have the opportunity to

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

² In these comments, when we refer to the term "transmission capability estimate," we primarily mean the one related to full capacity deliverability status (FCDS) generation.

review and assess the implications of the TPP renewable portfolios for the base and sensitivity cases. Therefore, BAMx suggests that the CEC involve stakeholders, as it has the CAISO, in the resource mapping process. Overall, BAMx urges the CAISO to continue to engage the stakeholders in the process of modeling these renewable portfolios in the transmission planning power flow and production cost modeling cases, and acknowledges that the issuance of the White Paper is the first constructive step in that direction.

We understand that the CPUC IRP being on a two-year cycle versus the CAISO TPP being on an annual cycle, presents challenges to manage the information flow between these two processes. In the BAMx comments on the CAISO 2018-19 Transmission Plan, dated November 30, 2018, we had included a timeline for CAISO's consideration entailing an exchange of data and information among CAISO TPP, CPUC IRP, and involved stakeholders. In Attachment A, we have included excerpts from those prior comments – specifically on the Policy Assessment subject matter. Although the CAISO had found the BAMx-proposed timeline to be unrealistic “given the resource requirements necessary to conduct these studies and other planning activities”³, we continue to believe that this process/timeline is feasible and will ensure that the TPP portfolios used to determine the reliability and policy-driven projects are vetted by stakeholders and would also minimize the likelihood any inefficient and unneeded Area Delivery Network Upgrades (ADNU) being approved under any given TPP cycle. Two key aspects of the BAMx-proposed approach and timeline are as follows.

First, it envisions the CAISO refining its transmission capability estimates that would be provided to the CPUC IRP - not only using the current and past Generator Interconnection Deliverability Allocation Procedures (GIDAP) studies,⁴ but also utilizing the available production cost simulations studies results for the prior year's TPP portfolios. If the prior year's portfolios result in an excessive amount of renewable curtailments and congestion, the CAISO would use its judgment, in consultation for the CPUC and CEC, in determining whether those results were credible or have resulted purely from unrealistic and/or inefficient resource mapping.

Second, this timeline allows stakeholders with an opportunity to review and provide feedback into the CAISO's refined transmission capability estimates. In addition to the feedback stakeholders would provide on the refined transmission capability estimates at the end of February, they also could provide feedback on the preliminary results associated with those portfolios in the mid-November timeframe.

In summary, we believe that meaningful stakeholder participation, and the use of production cost simulations studies in the TPP that address potential excessive generation curtailments, in addition to the TPP reliability and GIDAP studies, would significantly improve the transmission capability estimation process.

³ CAISO Response Matrix to *Stakeholder Comments 2018-2019 Transmission Planning Process Stakeholder Meeting Reliability Assessment*, November 16, 2018, p.8.

⁴ GIP phase-1 study results are typically available in mid-January of each year.

2. Need to Delay Major Transmission Approval Decisions Under Changing Environment

As the CAISO pointed out during the May 28th stakeholder call, the fundamental elements driving the transmission capability estimates are fluid. In particular, the CAISO explained how the nested constraints and therefore the boundaries of the transmission zones could change the transmission capability estimates as a result of some factors, such as new transmission upgrades and the overall transmission system topology. We also note that the CAISO is considering revisions to the existing Deliverability Assessment Methodology (DAM), which is expected to result in having reduced level of ADNUs needed to accommodate full capacity deliverability status (FCDS) generation.⁵ In other words, the revised DAM would likely result in having a greater amount of FCDS resources that can be accommodated in a given transmission zone/area relative to the existing transmission capability estimates. We appreciate that the CAISO will use the existing DAM until the methodology is changed. However, in case any ADNUs are identified in the 2019-2020 TPP cycle as a Category 1 policy-driven transmission upgrade, we urge the CAISO to consider whether their answer would be substantially different under the revised DAM. That is, if, under the revised DAM, no such ADNU would be identified in Category 1, thus any upgrade that is identified under the existing DAM should be classified as a Category 2 policy-driven upgrade to be further evaluated in the subsequent TPP cycle.

BAMx looks forward to continuing the dialog with the CAISO staff and other stakeholders in trying to build a robust feedback loop between CPUC IRP and the CAISO TPP.

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

⁵ Deliverability Assessment Methodology Issue Paper, *Generation Deliverability Assessment Methodology Issue Paper Stakeholder Call*, May 2, 2019, p.21.

Attachment A: Excerpts from the BAMx comments on the CAISO 2018-19 Transmission Plan, dated November 30, 2018

Policy Assessment

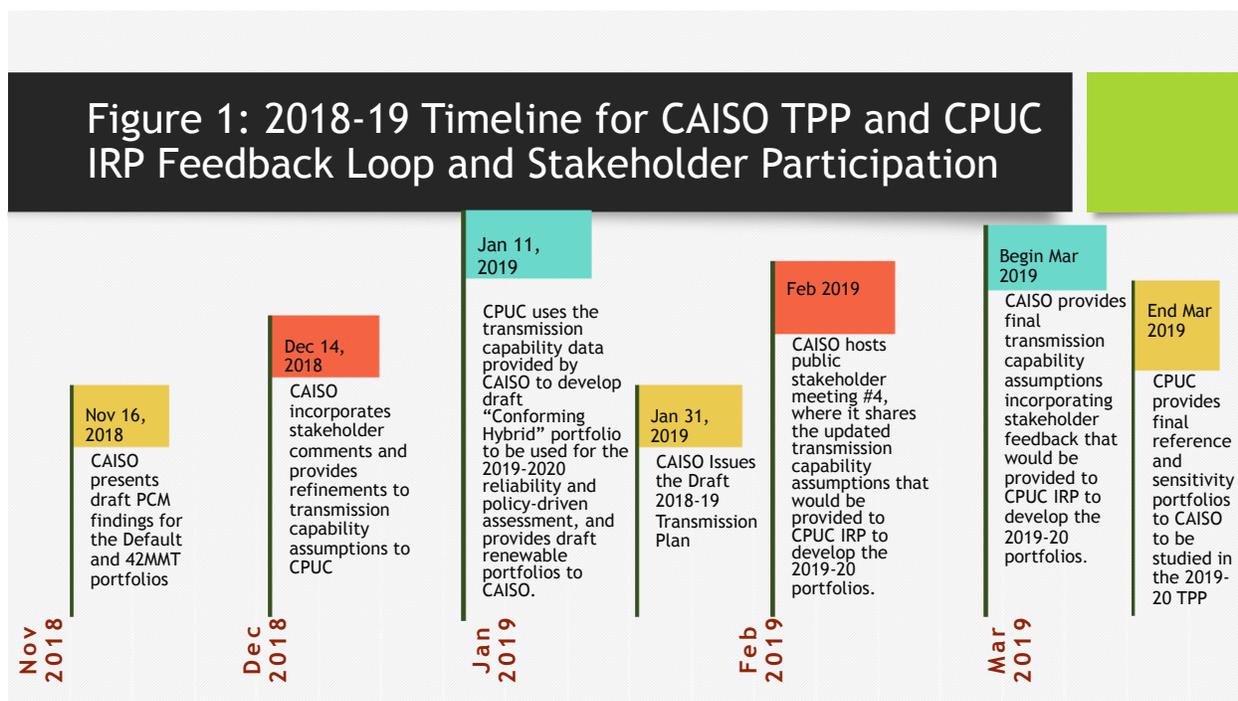
The CPUC Integrated Resource Plan (IRP) 42 MMT Scenario portfolio and the CPUC IRP Reference System Plan were studied as a sensitivity in the 2018-2019 TPP policy-driven assessment to identify potential Category 2 informational transmission projects. The study found that while Full Capacity Deliverability Status (FCDS) resources are deliverable based on the CAISO new proposed Deliverability calculation methodology, higher curtailment of renewable generation could result. The finding supports the previously noted need for a greater understanding of the proposed Deliverability calculation methodology and how impacted parties can understand the potential for curtailment, the process for how such curtailment is quantified and, if economically justified, how mitigation will take place in a timely manner.⁶

As we had indicated in our prior comments in the 2018-2019 TPP⁷, we have some serious concerns about the sufficiency of the feedback loop concerning transmission constraint information between the CAISO reliability and deliverability assessment and the CPUC's renewable portfolios. In those comments, we had provided an example that demonstrated a need to establish a more effective and timely feedback loop within the same cycle to avoid potential approval of an unneeded policy-driven transmission project.

In Figure 1 below, we suggest a timeline for CAISO's consideration entailing an exchange of data and information among CAISO TPP, CPUC IRP, and involved stakeholders. In particular, we request the CAISO to provide its draft transmission capability estimates to the CPUC's IRP comprising the stakeholder feedback in mid-December 2018. This would allow the CPUC adequate time to include those estimates in the RESOLVE model and provide the resulting draft "Conforming Hybrid" resource portfolio - to be used in the 2019-2020 reliability and policy-driven assessment - to the CAISO by mid-January 2019.

⁶ The current economic analysis methodology relies on production cost modeling where congestion cost is quantified based upon fossil unit redispatch and the associated cost curves. The methodology would need enhancement to reflect the forgone value of curtailed renewable generation.

⁷ <http://www.caiso.com/Documents/BAMxComments-2018-2019TransmissionPlanningProcess.pdf>



The CAISO could then utilize its updated Production Cost Modeling (PCM) analysis⁸ and the CPUC's draft portfolios to further refine the transmission capability estimates, and present it during the February 2019 stakeholder meeting. Subsequently, the CAISO would then incorporate the stakeholder feedback in the "final" transmission capability estimates it would provide to the CPUC beginning of March 2019. This would provide CPUC with adequate time for developing and providing the final base (reference) and sensitivity portfolios for the 2019-2020 TPP.

The above BAMx-proposed timeline will ensure that the 2019-20 TPP portfolios used to determine the reliability and policy-driven projects are vetted by stakeholders and would minimize the likelihood any inefficient and unneeded Area Delivery Network Upgrades (ADNU)⁹ being approved under the 2019-2020 TPP. If for some reason, the CAISO and CPUC cannot implement the feedback loops outlined in Figure 1, we suggest the timeline shown in Figure 2 during the 2019-20 TPP.

⁸ Involving the CAISO-proposed next steps identified on slide #46 of the "2018-2019 TPP Policy-driven Assessment," presented during the November 14th stakeholder meeting.

⁹ BAMx recognizes that the transmission capability estimates developed by the CAISO typically entails the assessment of ADNUs that might be triggered beyond those estimates in a given area, not the local DNUs and RNUs.

