

The ISO received comments on the topics discussed at the January 21, 2022 stakeholder meeting from the following:

1. Bay Area Municipal Transmission group (BAMx).....	2
2. California Public Utilities Commission – Energy Division (CPUC-ED)	4
3. EDP Renewables (EDRP).....	7

Copies of the comments submitted are located on the User Groups and Reoccurring Meetings Page under Transmission Development Forum at:

<https://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx>

The following are the ISO and PTO’s responses to the comments.

1. Bay Area Municipal Transmission group (BAMx)		
No	Comment Submitted	CAISO Response
a	<p>BAMx Applauds CAISO and CPUC's Joint Effort in Establishing Transmission Development Forum</p> <p>BAMx applauds the CAISO and the CPUC's joint efforts in establishing the Transmission Development Forum. There is clear stakeholder interest in project development updates and tracking the CAISO-approved projects from the transmission planning process (TPP) and generation interconnection process (GIP). BAMx also applauds the CAISO and the CPUC for listening to the stakeholders' needs and the foresight in creating this much-needed forum.</p>	The comment has been noted.
b	<p>BAMx Supports the CAISO and CPUC's Proposed Plan to Update and Inform Stakeholders on Project Status on Quarterly Basis</p> <p>During the April 26, 2022 call, the CAISO indicated it is proposing to host the Transmission Development Forum quarterly. The CAISO also proposed updating and posting workbooks of the approved TPP projects and GIP network upgrades on the CAISO website for stakeholder access. BAMx supports both proposals.</p>	The comment has been noted.
c	<p>BAMx Applauds CAISO's Efforts Over Last Quarter Establishing Common Format And Development Metrics In Tracking And Communicating Transmission Project Status</p> <p>In BAMx's February 2022 comments, we had suggested establishing a common and consistent reporting format and convention for both the TPP and GIP projects, as the differences between TPP and GIP projects created confusion. In the April 2022 version of the TPP-approved project and GIP-driven network upgrades workbooks, BAMx noticed that CAISO and the participating transmission owners (PTO) had aligned the formatting of the workbooks and presentations. For example, similar to the other PTOs, PG&E in the April 2022 version has included a new column that clearly identifies the specific Cluster study, which identified the particular network upgrade.</p> <p>BAMx also appreciates CAISO updating the TPP-approved projects list with the projects approved in the 2021-2022 Transmission Plan. BAMx reiterates its February 2022 comments that the TPP projects and GIP network upgrades should be developed and placed in-service unless found to be no longer needed or cost-effective after the CAISO's approval. BAMx urges the CAISO and CPUC to establish "project health" metrics and leading indicators to be included in the PTO's quarterly reporting, such as - Is a project proceeding on schedule? What is the PTO's recovery plan to get back on schedule?</p>	<p>The comment has been noted.</p> <p>Please see response to comment 2b) below.</p>



Scope, cost, and schedule are the three key parameters of a project. Similar to the in-service date reporting requirement, BAMx recommends the CAISO and CPUC request the PTOs include the original CAISO approved costs and the current estimates in their reports. CAISO, in response to BAMx's February 2022 comments, stated the following.

“At this time the cost information will not be included in the quarterly updates for the approved transmission planning projects or the network upgrades. The CAISO will explore adding the cost information to the tables in chapter 8 of the annual transmission plan.”

We appreciate the CAISO's willingness to update the cost data for the TPP-approved project on an annual basis. However, it does not address BAMx's concerns about the tracking costs associated with the GIP-driven network upgrades. We urge the CAISO to have PTOs report the capital cost of all the GIP-driven projects as part of their reporting.

2. California Public Utilities Commission – Energy Division (CPUC-ED)		
No	Comment Submitted	CAISO/PG&E Response
a	<p>ED has noticed that there are several other data fields that stakeholders have identified as being important for providing the transparency reasonably expected from the TDF. As noted in the ISO’s responses to comments on the first TDF in January 2022 (ISO Responses), Bay Area Municipal Transmission Group (BAMx) articulated that “[s]cope, cost, and schedule are the three key parameters of a project.” (ISO Responses, p.5) ED agrees that any process aiming to provide transparency to stakeholders should reasonably include these. ED also supports California Community Choice Association’s (CalCCA) additional suggestion of including data about a projects’ dependence on other projects to better understand how the changing status of one can affect another. (ISO Responses, p.6)</p>	<p>The comment has been noted.</p>
b	<p>PROJECT COSTS NEEDED</p> <p>Energy Division’s team notes that load customers in the ISO have a greater stake in specific generator interconnection-related projects than in any other ISO or RTO region in the country. Unlike load customers elsewhere, because of the ISO’s “participant financing” cost allocation method for network upgrades triggered by generator interconnections, ratepayers pay for the entire cost of such network upgrades. In other regions of the country, it is common that the costs of interconnection-related upgrades are cost-shared or borne solely by the generators through a “participant funding” approach to cost allocation. In the ISO, while a generator initially finances the costs of a network upgrade, over the five years following commercial operation, the generator is paid back by the transmission owner (TO), after which, all of the costs of the network upgrade are in the TO’s rate base and recovered from ratepayers (multiple times over) during the decades-long life of the asset. Because load customers are burdened by the recovery of the full cost of these network upgrades, they are most certainly Stakeholders, and cost information related to both network upgrades and the cost of TPP-approved projects is essential to include in the TDF. ED also agrees with BAMx’s January TDF comments that in addition to the current estimated cost for both TPP projects and interconnection-related upgrades, the data should include the original estimated cost at the time of ISO approval in the TPP, as well as the original estimated cost of network upgrades when determined in the GIDAP. (ISO Responses, p.4)</p>	<p>The CAISO and CPUC has further discussed the purpose of the transmission development forum as it relates to cost information as indicated below.</p> <p>The purpose of transmission development forum is to create a single forum to track the status of transmission network upgrade projects that affect generators and all other transmission projects approved in the CAISO’s transmission planning process.</p> <p>The purpose of this forum is <u>not</u> to discuss project cost information.</p> <p>Project cost information can be found:</p> <ul style="list-style-type: none"> • PG&E Stakeholder Transmission Asset Review (STAR) Process • SCE Stakeholder Review Process (SRP) • TO5 Evaluation of SDG&E’s Forecast Period Capital Additions (not publicly available) • AB 970 Reports (note that SCE’s SRP includes SCE’s AB 970 report information)

<p>c</p>	<p>ADDITIONAL DATA FIELDS IMPORTANT TO STAKEHOLDERS <u>Schedule of Projects and Network Upgrades</u></p> <p>As the goal of the TDF is to provide transparency for Stakeholders on generator interconnection-related TPP projects and network upgrades, understanding the timing of these projects is important. American Clean Power California (ACP-California) expressed the importance of including original anticipated in-service dates for both projects and upgrades. (ISO Responses, p.2) The ISO suggested in its responses to January TDF comments that the columns showing the expected in-service dates for the current and prior TDF would be included, but that the original estimated in-service date would not be provided after the first TDF's workbook (ISO responses, pp.2,4). The inclusion of the full timeline of both TPP projects and network upgrades is useful to help stakeholders understand the prioritization, scope, and timing of projects. This can be particularly true when one project or upgrade is dependent on another. ED notes and appreciates that the TDF workbooks continue to include the important information on the original estimated in-service dates.</p> <p>The ISO noted in the responses to January TDF comments that ACP-California requested that TOs "include information for each delayed upgrade explaining the primary cause of the delay." (ISO Responses, p.2) In addition to the importance of maintaining the original estimated in-service date for all projects and upgrades, ED agrees with ACP's request to include a column explaining the reason for the delay for any project or upgrade that slips by more than a year from its original estimated in-service date. Further, a column should be included to explain the main reason for any slippage or advancement of the in-service date of a project or upgrade from one TDF to the next. ED understands that any legitimately sensitive or confidential information would not be used to populate these data fields.</p>	<p>The CAISO with the PTOs continue to enhance the consistency within the workbook data. There are some differences such as, PG&E does not have original estimated in-service dates (ISD) for GIP network upgrades as the work is dependent on the interconnection customer executing their interconnection agreement (IA). Only after an IA is executed, is an expected in-service date assigned. For TPP projects, PG&E's workbook contains the original estimated ISD at time of TPP approval, as well as expected in-service date as of most recently approved Transmission Plan.</p> <p>The reasons for delay can be quite complex, and this information is discussed in the Transmission Development Forum with opportunities for questions to be asked during the quarterly meeting with details included in the presentations that are posted for each of the quarterly meetings.</p>
<p>d</p>	<p><u>Project Dependencies</u></p> <p>In its responses to comments on the January TDF, the ISO noted that Cal CCA recommended, "[a] column that lists any other transmission projects or generation interconnection network upgrade projects that are dependent on the project to allow parties to identify potential impacts changes to project status have on other projects." (ISO Responses, p.6) The ISO responded, "The workbook will include this information." (ISO Responses, p.6) ED agrees that this is important information for Stakeholders, and while this information was not included in the April TDF, looks forward to the ISO including this column in both workbooks in advance of the next TDF.</p>	<p>The ISO and PTOs further reviewed this, all individual interconnection projects that are impacted by GIP or TPP upgrades are informed of their dependency via the annual reassessment reports as well as their individual study reports. The intent of the TDF is to provide updates on the GIP or TPP upgrades level. Each specific interconnection project can take the updates presented in the TDF and apply those updates to their individual interconnection project. As indicated with the purpose of the TDF, it will not address individual interconnection concerns.</p>



		<p>The full spectrum of all possible dependencies including projects, outages, sequencing, resources, and generator interconnections would be too complex for the forum,. The CAISO will work with the PTOs to further look into providing in future TDFs adding a column to the approved TPP workbook indicating wheter there are interconnecting resources in the queue dependent on the transmission expansion project. for interconnection or deliverability</p>
<p>e</p>	<p><u>Incomplete Data from Transmission Owners</u> As mentioned above, there was marked improvement in the consistency of data from the January TDF to the April TDF. However, there remain a number of unpopulated data fields throughout the project and upgrade workbooks. ED hopes that the next TDF's workbooks will include complete data from all TOs. Additionally, as it is understandable that some data fields may be "not applicable" (N/A) or "to be determined" (TBD), and ED asks that those be entered where appropriate. In the recent workbooks it was difficult to determine whether the data simply was not made available, or whether "N/A" or "TBD" would have been a more accurate entry.</p> <p>The CPUC Energy Division appreciates this opportunity to provide comments and commends the ISO's and CPUC's efforts to continue improving the usefulness of the TDF for Stakeholders.</p>	<p>The CAISO and PTOs will continue to update the workbooks and will look to use TBD or N/A as appropriate..</p>

3. EDP Renewables (EDRP)		
No	Comment Submitted	CAISO Response
a	<p>EDPR has one technical question following up on the April 26th discussions and some general comments to increase the benefits of the forum moving forward.</p> <p><u>Technical Question:</u> With respect to the Gates breaker over-duty issues, the breakers are currently rated at 40kA—prior to the breaker replacement in Q1-2023, what is the breaker duty for each CB 352, 362, 372 (% of 40k)? Even a rough estimate would be helpful/appreciated.</p>	This information is available in the reports that are available on MPP, subject to NDA..
b	<p><u>General Comments:</u> 1) Increasing the consistency of the information provided and the presentation/format of the information across the Transmission Owners will make it easier for stakeholders and decision makers to find and process the specific information they need.</p>	The comment has been noted.
c	<p>2) Providing the “original estimated in-service date” for each project is useful for understanding how long certain types of transmission and interconnection projects generally take to complete and evolving trends in this regard. It also could help to highlight barriers to transmission development that may exist and should be useful for both stakeholders and policy makers considering policy changes in this space.</p>	Please see response to 2c) above.
d	<p>3) Providing an estimate of the amount and timing of the Resource Adequacy that could be enabled by a given transmission project would help to prioritize scarce engineering and construction resources. Obviously, the timing of the transmission upgrade itself determines the timing of the Resource Adequacy, but including information about the relevant generators’ Commercial Operation Dates and deliverability status would provide a sense of whether the transmission project is a commercial bottleneck for supplying resource adequacy over the next 2-3 years, or not. This information could be useful even at a high-level, aggregated and anonymous.</p>	The intent of the transmission development forum is to provide status of the transmission projects and network upgrades. Specific information relating to individual generators is outside the scope of the transmission development forum.