



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

1.	American Clean Power California (ACP-California)	. 2
	Bay Area Municipal Transmission group (BAMx)	
3.	California Community Choice Association (CalCCA)	. 6
4.	California Energy Storage Alliance (CESA)	. 7
5.	Large-scale Solar Association (LSA) and Solar Energy Industries Association (SEIA)	. 9
6.	Public Advocates Office at the CPUC (Cal Advocates)	13

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

 $\underline{https://www.caiso.com/informed/Pages/MeetingsEvents/UserGroupsRecurringMeetings/Default.aspx}$

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



1. A	. American Clean Power California (ACP-California)		
No	Comment Submitted	CAISO Response	
а	Additional Information and Standardization of Materials would be Beneficial in the Future The materials that were presented by the PTOs were very useful. They would be more useful and easier to digest if there was additional standardization of what is presented and if more information can be provided on each of the projects included in the presentations.	The CAISO and PTOs will continue to align the formatting of the workbooks and presentations.	
	For instance, some PTOs presentations included information on the original inservice date of the project. Going forward, it would be helpful for the presentation materials (and associated spreadsheets) to include: 1. The original anticipated in-service date for the project was first approved/included in a LGIA 2. The expected in-service date that was presented at the prior Transmission Development Forum 3. The current expected in-service date Providing this information will help provide additional transparency around project delays and help stakeholders easily identify which projects are falling behind. This will enable more proactive solution development for key projects that being to be delayed.	The original in-service date was included in the original workbook along with which transmission planning process the project was approved. Going forward the CAISO only intends to include in the workbook, the expected in-service date of the project from previous quarter and the new in-service date for the for the project with any changes highlighted. The CAISO will also include the transmission planning process that the project was approved where specifics and the scope of the project can be found.	
b	Additionally, PTOs should report on the capacity (MW) of resources in the queue which are dependent on the relevant transmission upgrade/project and whether those generators require the project to interconnect or to achieve deliverability. More granular information on the generation projects that are dependent on these upgrades (without providing project-specific information) would also be incredibly useful. For instance, the PTOs should report, for each upgrade not only how many MW are dependent on the upgrade but also break the capacity out by on how many MWs have signed LGIAs, how many are in Phase I, and how many MW are in Phase II. Having this information available, consistently from all PTOs, would help the CPUC, CAISO, and stakeholders identify the most critical upgrades to enabling new capacity to come online and support RA requirements.	The CAISO and PTOs will continue to align the formatting of the workbooks and presentations. It is not possible at this time to include this requested information in the Q2 Transmission Development Forum.	
С	Finally, it would be valuable for the PTOs to include information for each delayed upgrade explaining the primary cause of the delay. This will help increase transparency and will help all stakeholders better understand the	Within context, significant events, delays, issues, etc may be included in the presentation of the material as appropriate; however any	



cause of transmission delays, such that appropriate solutions can begin to be
put into place. For instance, if achieving permitting approval is the primary
source of delays, there may be steps the CPUC can take to mitigate those
delays. And if staffing concerns are the primary source of the delays, other
solutions can begin to be assessed.

information associated with land acquisition will not be included as it is sensitive information



No	Bay Area Municipal Transmission group (BAMx)	
110	Comment Submitted	CAISO/PG&E Response
а	BAMx Applauds CAISO and CPUC's Joint Effort in Establishing Transmission Development Forum BAMx applauds the CAISO and the CPUC's joint efforts in establishing the Transmission Development Forum. There is a 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 CAISO for listening to the stakeholders' needs and the foresight in creating this much-needed forum	The comment has been noted.
b	BAMx Supports the CAISO and CPUC's Proposed Plan to Update and Inform Stakeholders on Project Status on Quarterly Basis During the January 21, 2022 call, the CAISO indicated it is proposing to host the Transmission Development Forum on a quarterly basis. 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.	The comment has been noted.
С	CAISO and CPUC Should Establish Common Format And Development Metrics In Tracking And Communicating Transmission Project Status After reviewing the PTO's presentations at the workshop and project status workbooks posted on the CAISO website, BAMx suggests the CAISO and the CPUC establish a common and consistent reporting format and convention for both the TPP and GIP projects. The formats and terminologies used by the PTOs are almost identical. However, differences between TPP and GIP projects, as well as status and category definitions, could still create confusion. For example, project status labels, such as "On-Hold" should be defined and explained why and when the CAISO has placed the project "On-Hold."	The CAISO and PTOs will continue to align the formatting of the workbooks and presentations. In regard to the status of the projects that are identified as being on hold, these are described in the CAISO's transmission planning process.
	BAMx appreciates the workbook details on the different vintages of the expected in-service date (first approved in Transmission Plan, expected in 2020-2021 TPP, and current expected) for TPP projects. BAMx supports this added clarity on project schedule. BAMx believes it is important to keep track of the in-service date originally intended by the CAISO. BAMx recommends the CAISO and CPUC to extend the vintage in-service date reporting requirement to all projects, including the GIP projects. BAMx completed a quick review of the TPP project in-service dates. Of the 99	The original in-service date was included in the original workbook along with which transmission planning process the project was approved. Going forward the CAISO only intends to include in the workbook, the expected in-service date of the project from previous quarter and the new in-service date for the for the project with any changes highlighted. The CAISO will also include the transmission planning process that the project was approved where specifics and the scope of the project can be found.





99) were behind schedule. In other words, only 15% of the identified projects are on-schedule when compared to their original CAISO approved in-service dates. The on-schedule percentage improved, but only to 40%, when compared with the PTO's forecast contained in the 2020-2021 Transmission Plan. Evidently, 60% of TPP projects have encountered unexpected delays in the past 12 months.

Clearly, 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?

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 to request the PTOs to include the original CAISO approved costs in addition to the current estimates in their reports. With a high percentage of approved projects suffering schedule delays, likely the corresponding project costs have also changed.

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.



3. (. California Community Choice Association (CalCCA)		
No	Comment Submitted	CAISO Response	
а	CalCCA supports the California Independent System Operator's (CAISO's) plan to host the Transmission Development Forum and update the workbooks on a quarterly basis. This timeframe will allow for timely updates to the broader stakeholder audience on project statuses. The information provided in the forum and in the workbooks generally captures the right information needed by parties to evaluate high-level project statuses in one place. To further aid in tracking project statuses, CalCCA requests two additions to the information provided in the workbooks:	The comment has been noted.	
	A column that identifies the previously expected in-service date from the last workbook to allow parties to more easily track changes from one quarterly update to the next; and	The workbook will include this information.	
	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.		



4. (California Energy Storage Alliance (CESA)	5undary 21, 2022
No	Comment Submitted	CAISO Response
а	CESA appreciates the ISO, in collaboration with the California Public Utilities Commission (CPUC) and participating transmission owners (PTOs), for convening the first inaugural Transmission Development Forum (TDF). Given the volume of energy storage projects that are projected to be deployed and constructed over the next few years, the timeliness of network upgrades and transmission infrastructure buildout will play a critical role in ensuring near- and medium-term reliability and meeting our long-term decarbonization goals. To this end, CESA is strongly supportive of the launch of the TDF, which will serve as a helpful forum to increase transparency and inform project development activities. CESA also agrees with the planned quarterly cadence of the TDF meetings that balances the need to provide regular updates and the amount of time between when updates are more substantive.	The comment has been noted.
	While strongly supportive of the purpose and information shared at the TDF, CESA recommends that the TDF reports provide information in a standardized way, along with potential additional information categories, such as whether a particular transmission project is in the process of necessary land or obtaining CPUC permitting. Any qualitative information on the level of certainty of the planned in-service dates would also inform developers, load-serving entities (LSEs), and regulators on project development timelines.	The CAISO will coordinate with the PTOs to standardize the format of the information.
	Furthermore, CESA requests that the PTOs provide an additional category of information regarding any reasons for the delays to the expected in-service date. Finally, CESA seeks to better understand how the PTOs prioritize various transmission upgrades. Notwithstanding these suggestions, CESA reiterates our appreciate and support for the TDF. In addition to these general points, we also seek clarification on the status updates for several projects in the Los Angeles (LA) Basin.	The PTOs will provide details at the Transmission Development Forum for projects where the in-service date for the project has changed from the previous forum.
b	Clarification on status updates CESA requests clarification on the status of projects expected to significantly increase the transmission capability of the LA Basin local reliability area (LRA) and its associated sub-areas. According to the Final 2022 Local Capacity Technical Report (LCTR) and the Final 2026 Long-Term LCTR, the requirements of the LA Basin LRA significantly decrease in the 2022-2026 period due to the completion of four transmissionprojects:	



- Mesa Loop-In Project (230 kV)
- Mesa Loop-In Project (500 kV)
- Delaney-Colorado River 500 kV Line
- West of Devers 230 kV Upgrades

From Southern California Edison's (SCE) presentation, CESA understands that the Mesa Loop-In Project at 500 kV is currently expected to have an in-service date of May 2022, over two years later than considered at the approval of the transmission plan.

Unfortunately, SCE's presentation does not identify the status of the three other aforementioned projects that will impact the transmission capability of the LA Basin LRA. CESA is currently engaged in research and analyses focused on strategies to preserve resource sufficiency in the LA Basin while advancing California's decarbonization and environmental justice goals. Understanding potential transmission risks that may hinder expected import capabilities is essential to prepare for contingencies and identify a noregrets procurement strategy. As such, CESA requests SCE to clarify on the status of the projects identified above and requests identify the currently estimated in-service dates o these projects. A description of the upgrades, as well as potential delay risks and their expected magnitude (i.e. duration) would be particularly welcome.

Please see the following in-service dates

- Mesa Loop-In Project:
 - o 220 kV work ISD: June 2021 (completed)
 - 500 kV work ISD: May 2022
 - Project Description: Mesa Substation Project: Home (ca.gov)
- Delaney-Colorado River 500 kV Line: April 2024 (Included in workbook under DCRT tab – not a SCE project)
- West of Devers 230 kV Upgrades ISD: May 2021 (completed)
 - Project Description: <u>SCE West of Devers Upgrade</u> Project: Home (ca.gov)



Large-scale Solar Association (LSA) and Solar Energy Industries	Association (SEIA)
Comment Submitted	CAISO Response
Overall Format The format – written project summaries plus presentations on upgrades most affecting new generation/storage projects – was effective and informative. Likewise, the future plans for quarterly forums are reasonable.	The comment has been noted.
However, apparently SCE has its own separate stakeholder process for transmission updates. In fact, in at least some cases, the project information in the written summaries was not the latest available because SCE did not want the information presented in the two forums to be inconsistent. LSA/SEIA understand SCE's concern. However, SCE should: • Explain the relationship between its other forum (which does not appear to be widely publicized) and this Forum; and • Consider whether two separate transmission information processes are needed, i.e., whether the other process could be folded into this one.	SCE has a biannual Stakeholder Review Process (SRP), which was requested by the CPUC, and established as part of the FERC Rate Case Settlement (TO2019A). The SRP initiated Dec 1, 2020 and terminates Dec 31, 2023. The SRP is intended to provide the opportunity for Stakeholders to engage in a review of SCE's Five-Year Transmission Investment Plan for transmission projects that are not reviewed in the CAISO's Transmission Planning Process "TPP" or Generator Interconnection and Deliverability Allocation Procedures "GIDAP." Per the SRP tariff, SCE is required to provide information and documentation on its FERC jurisdictional transmission projects involving capital expenditures incurred over the past four years, the current year and forecasted capital expenditures in the next four years that cost or will cost over \$1 million and are included in SCE's Five-Year Transmission Investment Plan, as well as GIDAP and TPP projects. The SRP biannual submission (July 1 and Dec 1) includes: Project data spreadsheet containing 78 columns of data, one of which is Current Projected or Actual In-Service Date, for over 400 FERC transmission projects and programs Confidential and public versions of internal authorization documents, program manuals, and prioritization documents SCE posts the SRP Project Data Spreadsheet to its website sce.com
	as a component of FERC Open Access Information, All other SRP documents and responses to data requests received from external parties are served to the SRP service list. SCE included the SRP reference to leverage an existing process for



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		Any shifts in a proposed in-service date and/or project need between the Transmission Development Forum and the SRP is not due to an inherent need to align these two, but due to related SCE internal project governance and tariff processes, such as the annual reassessment period.
b	Larger questions Stakeholders seek additional information about logistics and policy-related issues concerning interconnection. Some suggestions are listed below.	
	Work planning and prioritization LSA/SEIA seek information about the criteria used by PTOs to prioritize transmission upgrades for new-resource interconnection vs. other work. Similarly, we would like to understand how the PTOs prioritize work between interconnection-related projects - for example, whether upgrades get higher priority based on: (1) First-come, first served; (h) original in-service date; (2) how many projects or how much capacity is depending on them; (3) whether they are RNUs (needed for interconnection) vs DNUs (needed for deliverability).	PG&E generally treats generation interconnection related work on a first-come, first-served basis with the requirement that to begin work, the parties must have an executed interconnection agreement and posted the appropriate financial securities. Interconnection work is prioritized in order to meet our contractual obligations as stated in the interconnection agreement. Where projects are competing with each other, they are handled on a first-come first-served basis. Network upgrades shared by multiple interconnection customers share this same requirement.
С	"Early" project interconnections LSA/SEIA seek information about how the PTOs and CAISO determine which new generation and storage projects can interconnect and operate first, when long-lead-time RNUs are needed for the cluster as a whole but some projects can be accommodated without them. At a minimum, information should be provided in Interconnection Studies on the amount of generation in the cluster that can be connected before the need for such RNUs is triggered; the timing for requesting and receiving results for Limited Operation Studies (5 months and less than 3 months, respectively, before Initial Synchronization) are too late for a project given PPA commitments and construction timing to meet a specific COD.	The CAISO and PTOs will continue to align the formatting of the workbooks and presentations. It is not feasible to include this information in the Transmission Development Forum at this time.
d	PTO determination on commencement of interconnection-related upgrades It seems that there is some judgment exercised on when PTO work on interconnection-related upgrades is initiated, e.g., sometimes PTOs will delay that work even when Notice to Proceed has been provided by an Interconnection Customer if there is some uncertainty about whether that	PG&E generally treats generation interconnection related work on a first-come, first-served basis with the requirement that to begin work, the parties must have an executed interconnection agreement and



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	upgrade will be needed. LSA/SEIA request additional information about: (1) How the PTOs make decisions on which upgrades to delay; and (2) whether the impact on resource COD or FCDS is considered in making such decisions. LSA/SEIA also ask that the PTOs notice impacted projects.	posted the appropriate financial securities. Network upgrades shared by multiple interconnection customers share this same requirement.
е	Maintenance This is relatively a new item in Interconnection Studies; it is typically assigned a "duration" like Network Upgrades, shown in the Network Upgrade tables, and considered in COD determinations. Especially where it is the longest-lead-time item, stakeholders need to know more about the type of maintenance and options for addressing it, e.g.: • Which transmission elements are affected by the maintenance; and • Whether the maintenance can be: (1) conducted during hours when affected generation is less likely to be operating (e.g., nighttime for solar projects); (2) rescheduled, so resources can connect in time for the summer season; and/or (3) staged, to minimize generator impact at any given time.	PG&E will share additional information on which transmission elements are expected to be affected by the maintenance by request. The level of detailed information is not suited for the project studies. It is important to note that as the maintenance project progresses, the scope of the maintenance and the timeline to completion may evolve. PG&E will share this information on a best efforts basis noting that project plans are subject to change. At the time of the study, it is not possible for PG&E to provide the detailed insights that are being requested. As the project progresses, interconnection customers can interface with their PG&E representatives for updates on the maintenance project progress. SCE conducts quarterly Town Hall meetings for the purpose of informing generation developers about upcoming maintenance and/or new construction outages. These meetings currently focus on the Palms Springs, Lugo/Victorville, and Mojave (Tehachapi) areas and cover the items being requested. To be added to the Town Hall
f	Blackout/clearance windows PTOs should provide clear and public communication about whether and when they have "blackout" or "clearance" windows when work needed for interconnections cannot be performed, and/or when generators are not allowed to reach COD.	meeting distribution list, please contact Steven.Ruthledge@sce.com . Clearance windows are ever changing based on various conditions and are considered confidential. PG&E cannot share this information with the public.
g	Higher-voltage Distribution Upgrades on the SCE system Most SCE system elements between 50 and 200 kV are classified as Distribution, and interconnection-related modifications to them are classified as Distribution Upgrades. However, larger generation/storage projects connect to those facilities just like those at that voltage level for other PTOs. LSA/SEIA recommend that those upgrades be added to this process.	The purpose of the Transmission Development Forum is to create a single forum to track the status of transmission network upgrade projects and transmission projects approved in the CAISO's transmission planning process. Distribution upgrades on SCE's non-CAISO controlled radial subtransmission system do not fit this purpose. Furthermore, these upgrades have a smaller sphere of influence than transmission level upgrades, due to their non-network nature, and affect fewer generation projects. Updates on these types of upgrades



h Written information content

Format/information standardization (reporting)

Information provided by all PTOs, and the format used, should be the same. The formats were similar in the information provided, but PG&E listings had more information than the others.

Items listed in black font below were provided by all PTOs; PG&E added those in red, which should be added to listings of other PTOs. LSA/SEIA request addition of items shown in green font.

TPP-related upgrade listings

Project (project name)
Description

Type of upgrade (reliability, economic, policy)

Transmission Plan Approved

In-service Date at Approval in Transmission Plan

CPUC permit application date, if applicable Expected construction start date

Expected In-Service Date (2020-2021 Transmission Plan)

Current Expected In-Service Date

Reasons for delays
Project Status
Notes

MWs impacted by delays – COD MWs impacted by delays - FCDS

Interconnection-related upgrades

PTO project ID number

Network Upgrades (project name)

Description

Type of Upgrade (reliability, delivery,

maintenance)

Category (SCD overstress, reconductor, etc.)

Original assumed In-Service Date CPUC permit application date, if applicable

Project Status

Current Construction Start Date

Current In-Service Date Reasons for delays

MWs impacted by delays – COD MWs impacted by delays - FCDS

The items requested by LSA/SEIA are consistent with our wish that stakeholders better understand the larger issues, as explained above – most notably here, the reasons upgrades are delayed (e.g., permitting, workload) and the impacts of the delays.

In addition, LSA/SEIA request that the PTOs: (1) update the information as it changes, instead of waiting for the quarterly forums; and (2) notify impacted developers when the information changes.

are already provided in monthly Project Execution team meetings with the specific generator projects that require those upgrades.

The CAISO and PTOs will continue to align the formatting of the workbooks and presentations. For some of the additions to the workbooks, the updates includes the information available for the April transmission development forum and will continue to be added in future quarterly cycles.

The CAISO and PTOs will continue to explore the potential of including the MW that is behind the network upgrades in the future cycles.

Quarterly updates of the workbook and the stakeholder meeting presentation material, are posted on the CAISO website and the Transmission Development Forum stakeholder meetings are noticed through Market Notices in the CAISO Daily Briefings.



6.]	Public Advocates Office at the CPUC (Cal Advocates)	•
No	Comment Submitted	CAISO Response
a	Cal Advocates supports the Transmission Development Forum because it provides increased transparency and stakeholder engagement. Cal Advocates supports CAISO's facilitation of the Transmission Development Forum and values the increased transparency and stakeholder engagement that the Forum brings. Increased transparency and stakeholder engagement will help ensure accountability for transmission developers and improve public awareness of ongoing transmission investments and development. Cal Advocates also notes that this centralized forum and the regular sharing of information on developing transmission projects allows for timely identification of potential technical and project scheduling issues. Proactively resolving these issues can help reduce avoidable added costs to ratepayers and mitigate scheduling delays for needed transmission development.	The comment has been noted.
b	The projected in-service date presented by Southern California Edison Company (SCE) for the Alberhill 500kV project is highly speculative. SCE proposes the Alberhill System Project (ASP) with a projected in-service date of October 2025. This projected in-service date is highly speculative. As noted by SCE, the ASP application for a Certificate of Public Convenience and Necessity (CPCN) is under review by the CPUC in Application (A.) 09-09-022. The CPUC recently extended the statutory deadline to issue a decision on this Application to December 19, 2022.1 Furthermore, there is no certainty as to whether the CPUC will grant a CPCN for the project as proposed by SCE in its original Application. In addition, Cal Advocates emphasizes that further extensions of the proceeding deadline and potential modifications to the project scope could significantly change the projected in-service date presented by SCE. Cal Advocates recommends SCE avoid commitment of unnecessary resources to the development of the ASP and wait until the CPUC issues a decision on the CPCN.	The comment has been noted.