

The ISO received comments on the topics discussed at the July 30, 2025 stakeholder meeting from the following:

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Copies of the comments submitted are located on the Miscellaneous Meetings Page under Transmission Development Forum at:

<https://www.caiso.com/library/transmission-development-forum>

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

1. SB Energy		
No	Comment Submitted	Responses
a	We appreciate SCE providing an input on why the In-service date has moved from Dec 2027 to June 2031 (Leadtime for Switch gear equipment at the 500kV GIS at Serrano 500kV substation) . Serrano - Alberhill - Valley 500kV 1 Line Upgrade 1. When the previous update was provided as Dec 2027, in Jan 2025, what was the main reason behind SCE not procuring the long lead items ahead of the vendor selection for completion of the upgrades? 2. Can SCE please also provide the selected vendor for the switchgear equipment at Serrano 500kV GIS substation 3. Can SCE please provide the specifications of the switchgear that needs to be procured for the Serran 500kV GIS Substation 4. Based on our own outreach to various vendors, we are learning that the lead times for switchgears of 500kV GIS are between 8 months to 28 months. These lead times are significantly different from what SCE has provided. We would like to have further discussion with SCE to explore if SCE can consider other vendors to obtain the 500kV GIS switchgear. SB Energy is open to having this discussion with other developers who may be interested in providing support to reduce lead times. Can SCE please provide a contact to discuss this further.	<u>SCE RESPONSE (1):</u> SCE does not have pre-approved vendors for GIS equipment, nor does SCE have other locations where GIS equipment could be utilized in the unlikely event this project was deferred, reduced in scope, or cancelled, so procuring the long lead materials for this project prior to selection of the vendor and negotiation of final pricing, terms, and conditions was not possible. In addition, the GIS vendor would need to provide expertise on installing the equipment during the construction, so the long lead material is tied to the vendor selection process. <u>SCE RESPONSE (2):</u> No, the vendor contract is still in negotiations so we cannot disclose that information at this time. <u>SCE RESPONSE (3):</u> The detailed specifications for the switchgear are considered Critical Energy/Electric Infrastructure Information (CEII) and part of the project's design and procurement package. As such, they are not included in the Transmission Development Forum materials or other public planning documents. At a high level, the project scope includes procurement of new 500 kV gas-insulated switchgear consistent with SCE and industry standards, sized to accommodate system performance requirements identified in CAISO's Transmission Planning Process studies. If additional detail is required, those specifications can be made available to CAISO staff through the established TPP review process, or to qualified vendors through SCE's procurement channels under the appropriate confidentiality protections.

		<u>SCE RESPONSE (4):</u> SCE was open to bids from any qualified vendor able to meet the technical and performance requirements of this project. The lead times reflected in SCE's planning assumptions are based on information provided by the selected vendor through the competitive procurement process and are consistent with the vendor's committed scope and schedule. SCE cannot make representations regarding potential availability or lead times from vendors that did not participate in the bidding process. We appreciate SB Energy's interest in collaborating on potential solutions to address industry-wide equipment lead time challenges and will take this input into consideration.
b	Some of the line upgrades in the SCE Eastern Area (Devers – Red Bluff 500kV, Devers – Valley 500kV, Mira Loma – Mesa, San Bernardino – Etiwanda 230kV 1 Line Upgrade, San Bernardino – Vista 230 1 Line Upgrade, Vista – Etiwanda 230kV 1 Line Upgrade Given the significant delay in the Serrano – Alberhill – Valley 500kV line, can SCE please confirm if long-lead materials have been procured for these upgrades?	<u>SCE RESPONSE:</u> The vendor contract is still in negotiations so the long-lead materials for this upgrade have not been procured.
c	All upgrades Can CAISO please work with the PTOs to add a column on whether long lead items have been procured for the corresponding upgrades?	<u>CAISO RESPONSE:</u> The CAISO will continue to coordinate with the PTOs.
d	Install 2 x 16 ohm series bus reactors between Midway Substation 230 kV bus sections D and E (16 ohm parallel / 8 ohm net) Midway 230 kV Bus D BAAH Conversion: (Needed to install reactors between Bus Sections D & E) The In-Service date for the completion of the Midway 23kV Bus D BAAH required for installation is expected to be in-service by Nov	<u>PG&E RESPONSE:</u> 1. The C13P1-KPN02 - Midway 230 kV Bus D BAAH Conversion: (Needed to install reactors between Bus Sections D & E) must come first. It clears the physical space needed to begin installing the bus reactors near modifications being done to BUS D and E. In addition, it installs the Modular Buildings for installing the relays

	2027. However the In-service date for the installation of the 2x16 ohm series bus reactors is March 2031. 1. Can PG&E please provide the reasoning behind this significant difference? 2. Have the long-lead items for these upgrades already been procured? 3. Can PG&E please evaluate if the in-service date of the installation of the 2x16 ohm bus reactors can be aligned with the in-service date of the Midway 230kV Bud D BAAH required for installation of the bus reactors.	associated. This project was triggered in January 2024 by impacts to Generation Interconnection. It was in-flight before impacts to Generation however it had Prioritization impacts that delayed some work to restart that work in 2024. C13P1-KGR05 - Midway Substation 230 kV bus and 27 circuit breakers overstress (Install 2 x 16 ohm series bus reactors between Midway Substation 230 kV bus sections D and E (16 ohm parallel / 8 ohm net)) was triggered by the signing of a Cluster 13 project Generation Interconnection Agreement in January 2025. With a study duration of 72 months plus startup, it has an associated In-Service date in March 2031. 2. No, the long lead materials have not been ordered. The project has just recently gone through its Initial Business case and Authorization process. It is going through the Team Building process and will then begin site walks and feasibility and thereafter scope development will commence. The installation of the reactors cannot physically occupy space currently occupied by the existing Bus so aligning In-Service dates is not possible as there are space constraints. Coordination is, however, inherent between the projects going in at Midway Sub as there are a number of projects triggered and in-flight.
e	QC13P2RAS-04 Modify existing Midway 500/230 kV transformer overload SPS to include transformer outage detection and transformer overload detection for Bank 11, 12, and 13 Midway 230 kV Bus D BAAH Conversion: (Needed for Midway 500/230 kV Transformer overload RAS) The RAS Upgrade is expected to be in-service by March 2028 while the BAAH conversion required for the RAS upgrade has an in-service date of February 2030.	<u>PG&E RESPONSE:</u> 1. C13P1-KPN03 - Midway 230 kV Bus D BAAH Conversion: (Needed for Midway 500/230 kV Transformer overload RAS) must complete the install of modular buildings so that the RAS elements can be installed. This project was triggered in January 2024 by impacts to Generation Interconnection. It was in-flight before impacts to Generation however it had Prioritization impacts that delayed some work to restart that work in 2024. It has

	1. Can PG&E please provide the reasoning why the BAAH conversion required for the RAS has a later in-service date? 2. Has PG&E already procured all the required long-lead items for these upgrades?	an In-service date associated to the order of February 2030. C13P1-KPN03 - Midway 230 kV Bus D BAAH Conversion: (Needed for Midway 500/230 kV Transformer overload RAS) has a study duration of 36 months with an initial calculated In-service date calculated in March 2028. The project is in development and the project team will be re-evaluating all dependencies and schedules as scope continues. The In-Service date is subject to change. It is unclear at this time if the date will maintain or realign to the Midway final Circuit Breaker In-Service date in 2030. 2. The equipment has not been through the ordering process. The project must complete a portion of the design to allow ordering the right components. The RAS procurements should not impact the critical path.
f	QC13P2RAS-04 Modify existing Midway 500/230 kV transformer overload SPS include transformer outage detection and transformer overload detection for Bank 11, 12, and 13 Midway 230 kV Bus D BAAH Conversion: (Needed for Midway 500/230 kV Transformer overload RAS) The RAS Upgrade is expected to be in-service by March 2028 while the BAAH conversion required for the RAS upgrade has an in-service date of February 2030. 1) With the Midway 500/230kV Overload RAS coming into service earlier, Can CAISO please confirm that the impacting interconnection projects (for which the RAS was a required Network Upgrade) would not have to wait for the completion of the Midway 230 kV Bus D BAAH Conversion to achieve their in-service date? (Assuming other required upgrades are completed as well)	<u>CAISO RESPONSE:</u> This question should be submitted directly to your interconnection specialist who will coordinate discussions with the appropriate CAISO and PTO groups as required.

	2) If projects will not have to wait for the Midway 230kV Bus D BAAH conversion (Need for Midway 500/230kV overload RAS), can CAISO please include these updates in the next round of the reassessment studies	
g	Midway 230 kV reactor replacement: Replace existing 9 ohm Midway 500/230 kV reactors with 13 ohm reactors 1) Can PG&E please provide the reasoning why the reactor would take 4-years to replace? 2) Has PG&E already procured all the required long-lead items for these upgrades?	<u>PG&E RESPONSE:</u> 1. C14P2-GGR17 - Midway 230 kV reactor replacement was triggered as a new project on execution of a Generation Interconnection agreement in January 2025. It was studied to be a 48-month upgrade duration, putting its In-service date in 2029. C13P1-KPN03 - Midway 230 kV Bus D BAAH Conversion is a priority project making it possible to initiate and complete mitigations like C14P2-GGR17 at Midway. 2. The equipment has not been through the ordering process. The project must complete a portion of the design to allow ordering the right components. The Reactor lead times should not impact the critical path.
h	Manning 500kV Upgrades Long-lead equipment: When are PO's for long-lead equipment expected to be issued? a. HV circuit breakers b. HV switch gear c. SCADA and utility interconnect relays and controls	<u>PG&E RESPONSE:</u> a. HV circuit breakers – Ordered in May 2024 b. HV switch gear – N/A c. SCADA and utility interconnect relays and controls – Will be ordered in Q1 2026
i	Manning 500kV Upgrades Long-lead equipment: When are PO's for long-lead equipment expected to be issued? a. HV circuit breakers b. MPT c. HV switch gear d. SCADA and utility interconnect relays and controls	<u>LS POWER RESPONSE:</u> PO's have been issued for all of the long lead equipment listed.

2. REV Renewables																																																														
No	Comment Submitted						Responses																																																							
a	REV Renewables request CAISO to provide guidance on the highlighted " Lugo-Victorville" upgrade below. SCE has been capturing the expected ISD of their portion of the project as shown below. However, there is a LADWP portion associated with this upgrade which has been delayed to January 2029 based on our understanding of the LADWP update on their oasis website. We are particularly concerned about the impact this delay might have on the deliverability of the projects dependent on the completion of this upgrade. I believe there are a lot of CAISO projects whose deliverability and/or FCDS status will be impacted based on the LADWP delay. Will CAISO proceed with assuming a 2025 ISD based on SCE's update, or will the upgrade be assumed for a 2029 ISD due to the delay for the annual deliverability studies? We will appreciate any clarifications here. CHART BELOW Summary of Approved Transmission Planning Projects (1/3) <table><tr><th>No.</th><th>Project</th><th>Transmission Plan Approved</th><th>ISD at Approval in Transmission Plan</th><th>Expected ISD Jan 2025 TDF</th><th>Current Expected ISD</th><th>Project Status</th><th>CPUC Permit Filing</th><th>Construction Start</th></tr><tr><td>1</td><td>Antelope 66 kV Circuit Breaker Duty Mitigation Project</td><td>2021-2022</td><td>2026</td><td>Dec 2025</td><td>Dec 2026</td><td>Construction</td><td>Exempt</td><td>Oct 2024</td></tr><tr><td>2</td><td>Inyo 230 kV Shunt Reactor</td><td>2023-2024</td><td>2027</td><td>Dec 2026</td><td>Sep 2026</td><td>Engineering Design</td><td>Pending</td><td>Mar 2026</td></tr><tr><td>3</td><td>Laguna Bell - Mesa No. 1 230 kV Line Rating Increase Project</td><td>2021-2022</td><td>2023</td><td>Complete</td><td>Apr 2025</td><td>Construction</td><td>Exempt</td><td>May 2024</td></tr><tr><td>4</td><td>Lugo – Eldorado series cap and terminal equipment upgrade</td><td>2012-2013</td><td>2016</td><td>May 2025</td><td>Jun 2026</td><td>Construction</td><td>May 2018</td><td>Dec 2020</td></tr><tr><td>5</td><td>Lugo – Victorville 500 kV Upgrade (SCE portion)</td><td>2016-2017</td><td>Dec 2018</td><td>May 2025</td><td>Dec 2025</td><td>Construction</td><td>Exempt</td><td>Jan 2019</td></tr></table>						No.	Project	Transmission Plan Approved	ISD at Approval in Transmission Plan	Expected ISD Jan 2025 TDF	Current Expected ISD	Project Status	CPUC Permit Filing	Construction Start	1	Antelope 66 kV Circuit Breaker Duty Mitigation Project	2021-2022	2026	Dec 2025	Dec 2026	Construction	Exempt	Oct 2024	2	Inyo 230 kV Shunt Reactor	2023-2024	2027	Dec 2026	Sep 2026	Engineering Design	Pending	Mar 2026	3	Laguna Bell - Mesa No. 1 230 kV Line Rating Increase Project	2021-2022	2023	Complete	Apr 2025	Construction	Exempt	May 2024	4	Lugo – Eldorado series cap and terminal equipment upgrade	2012-2013	2016	May 2025	Jun 2026	Construction	May 2018	Dec 2020	5	Lugo – Victorville 500 kV Upgrade (SCE portion)	2016-2017	Dec 2018	May 2025	Dec 2025	Construction	Exempt	Jan 2019	CAISO RESPONSE: This project was approved in the ISO annual transmission planning process with SCE coordinating with LADWP on their portion of the facilities. With this both the SCE and LADWP components of the upgrade are required. As indicate LADWP indicated in their June 26, 2025 stakeholder meeting that the current in-service date for their portion is January 2029. The ISO will continue to coordinate with SCE and LADWP on the in-service date for this project.	
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1	Antelope 66 kV Circuit Breaker Duty Mitigation Project	2021-2022	2026	Dec 2025	Dec 2026	Construction	Exempt	Oct 2024																																																						
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3. Intersect Power		
No	Comment Submitted	Responses
a	Regarding the Lugo-Eldorado series cap and terminal equipment upgrade, listed as #4 on the list of upgrades in SCE's July '25 TDF presentation, could SCE please provide: - A clarification on the current status of this upgrade, including the remaining work required for completion, and a more detailed schedule for the remaining scope - Additional details on the causes of delay for this upgrade - Key discovery points that would inform potential future delays or acceleration opportunities for this upgrade.	<u>SCE RESPONSE:</u> The work related to increasing the series compensation on the Eldorado-Lugo and Lugo-Mohave 500kV Transmission Lines ("T/Ls") is complete as of May 2025. However, the overall completion date of the project is pending work that involves the Southern California Gas Co. ("SCG") to complete work that involves the upgrade of cathodic protection for one of its gas pipelines that currently parallels a portion of the Lugo-Mohave 500kV T/L. SCG is currently in the process of obtaining the necessary approvals to move forward with that work. Since this work will be completed by SCG, SCE is unable to provide details related to the overall schedule. SCG's construction schedule would also depend on several factors which primarily would include obtaining the necessary agency approvals for which SCE is not involved with. SCE will also not be involved in the construction and/or upgrade of the cathodic protection required for the pipeline. Additional causes surrounding the overall delay of the upgrade aside from the SCG pipeline topic discussed above include: - Material and Supply Chain Issues following the Pandemic - CPUC Approvals - Federal Agency Approvals - Resource constraints - Contractor Disputes

4. Longroad Energy		
No	Comment Submitted	Responses
a	For PG&E, why was C13P1-KGR05 "triggered" by a Cluster 14 GIA, but shown as required for Cluster 13? Why wasn't the upgrade started by the Cluster 13 projects responsible? Has the upgrade been fully funded?	<u>PG&E RESPONSE:</u> The comment in the TDF that C13P1-KGR05 - Midway Substation 230 kV bus and 27 circuit breakers overstress - Revised to Install Bus Reactors (2) was "Recently triggered by C14 GIA. Project is in scoping" is partially inaccurate. It was a C13 project that triggered it in January 2024 and it went through authorization in Q2 2024. It took longer than usual to initiate, fund, and assign the project which is why it was not signaling in PG&E automation reports for capturing the data. The project is in development now and has dependencies on the C13P1-KPN02 - Midway 230 kV Bus D BAAH Conversion to install its final Circuit Breaker in 2030. It has been funded and should see no reprioritization issues as it advances forward to completion.
b	For PG&E, what is driving the 6-month delay for C13P1-KGR05 compared to the ISD reported in January 2025, particularly when the precursor Midway 230 kV BAAH conversion (C13P1-KPN02) was improved by 3 years to 2027? Is there any opportunity to improve C13P1-KGR05's in-service date through either construction sequencing or other means?	<u>PG&E RESPONSE:</u> During the July 2025 TDF process, PG&E updated the entries for the C13P1-KPN02 and C13P1-KPN03 mitigations from the overall Midway Bus conversion to clarify what Order scopes are dependencies for other projects. While phases of the project are coming online in Q4 2025 and Q1 2027, the final phase is not coming online until 2030. The project is relocating bus D and as such has a lengthy restoration process for the modified sections which makes room for the new C13P1-KGR05 project Reactors which will be installed over the following clearance season after the BAAH conversion.
c	For PG&E, what is the difference between C13P1-KPN02 and C13P1-KPN03? The descriptions both state they are Midway 230 kV BAAH conversions.	<u>PG&E RESPONSE:</u> C13P1-KPN02 - Midway 230 kV Bus D BAAH Conversion: (Needed to install reactors between Bus Sections D & E)

		Whereas C13P1-KPN03 - Midway 230 kV Bus D BAAH Conversion: (Needed for Midway 500/230 kV Transformer overload RAS). These are both portions of the Midway Bus D BAAH conversion which makes room between Bus D and E and also installs critical modular building space for the high side and bus voltage components. The projects are called out separately as specific generation projects trigger different impacts requiring the mitigations.
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5. CPUC - California Public Utilities Commission		
No	Comment Submitted	Responses
a	After PG&E's TDF presentation, PG&E staff gave the following answer to a question about delays to the Wheeler Ridge Junction Substation (T.0000156) project: "Wheeler Ridge Junction: Team is currently working on Proponent's Environmental Assessment (PEA) associated with a Permit To Construct (PTC). The 2033 In-Service Date (ISD) may be achievable as a best case scenario, however the 2034 ISD builds in some float given lessons learned on the duration of the Estrella permitting process." 1. What were the "lessons learned" from the Estrella permitting process? 2. How will PG&E apply these lessons to the Wheeler Ridge Junction Substation (T.0000156) project? 3. How will PG&E apply these lessons to other transmission projects going forward?	<u>PG&E RESPONSE:</u> 1. Lessons Learned: Project conductor was undersized and wasn't studied to include the ultimate size. Project permitting timelines were far beyond normal timelines due to review of electrical options instead of the typical permitting review of environmental options. A lot of the time and costs resulting from entertaining new electrical options entirely resulted in delayed permitting and project timelines. 2. Projects going through lengthy permitting and scoped to replace structures needs to size conductor to include ultimate not just current study. PG&E will look to emphasize for CPUC review to be focused on environmental options based upon the electrical options/direction already studied by PG&E and CAISO. 3. Same as number 2.
b	During SCE's TDF presentation SCE staff stated that for Lugo-Victorville upgrades "an ISD of 2025 is no longer possible" and that SCE is hoping that the project can come online by 2027. SCE presenters also stated that some of SCE's scope cannot be completed without coordinating outage dates with LADWP, and that this is causing sequencing delays as LADWP work continues to be delayed. SCE staff also stated that some generators are	<u>SCE RESPONSE (1):</u> To date SCE has completed the following work: • Completion of line infraction work to address line to ground clearance issues (SCE side) SCE has the remaining work to complete at Lugo: • Replacement of three 500kV CB's, terminal equipment and associated disconnects • Replacement of bus supports, lightening arrestors, CCVTS, and line protection relays

reaching out to LADWP for help, and meetings between SCE and LADWP leadership are ongoing. 1. Can SCE give a breakdown of SCE/LADWP/other TO project scope, work schedule, and dependencies? 2. What are the mitigation plans coming out of meetings between SCE and LADWP? 3. Where does SCE see opportunities for the CPUC or its staff to help speed up this project?	• Removal of wave trap and upgrade of line position to support increased rating of the 500kV T/L The replacement of each CB and associated equipment described above will take several weeks and will require coordination with LADWP. SCE and LADWP have recently reinitiated discussions related to the feasibility of a possible work schedule which will be dependent on the outcome of additional studies and discussions between SCE, LADWP, and CAISO. The overarching dependency for SCE and LADWP to complete this work is dependent on the feasibility to move forward with select outages to maintain system reliability. Until there is resolution related to the replacement of Sylmar Bank E, an outage of the Lugo-Victorville 500kV T/L may not be possible due to reliability concerns. <u>SCE RESPONSE (2):</u> As it relates to the Lugo-Victorville 500kV T/L, one possible mitigation to prevent possible overloads would be curtailment of generation and/or reductions in imports. Any other possible mitigations related to the ability to commence work, which would include the outage of the Lugo-Victorville 500kV T/L, have been and continues to be discussed between SCE and LADWP. <u>SCE RESPONSE (3):</u> SCE and LADWP have been in contact recently regarding this matter to determine how best to resolve it. Meetings between SCE and LADWP have recently occurred to discuss the feasibility of opportunities that would allow for LADWP and SCE to complete the upgrade in advance of the Sylmar Bank E replacement work. Depending on the outcome of these discussions, SCE would welcome any assistance that the CPUC can provide.
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6. Clearway Energy		
No	Comment Submitted	Responses
a	PG&E's 22rsmt-4 upgrade a) Comments for PG&E: i) Can PG&E clarify if the 'aggregate MW with executed LGIA' column includes projects with this upgrade directly assigned as well as assigned as PNU? ii) Can PG&E identify what work aside from land acquisition is done for this upgrade over the last 3 years from 2022 to date? iii) Can PG&E confirm that all the long lead equipment have been ordered? iv) What are risks factors that can delay current ISD of 2031?	<u>PG&E RESPONSE:</u> 1. Both directly assigned and dependent MWs 2. 22rsmt-4 - Pole Line Switching Station was triggered in December 2022. It took most of 2023 to define, authorize, and fund the project. Due to funding and resources, prioritization, bundling impacts with Area Reinforcement Upgrades that are directly impacted, and securing capital financing, the project had to kick off in early 2024. 3. Breaker procurements started going through the ordering process in July. 4. Primarily, ISD impacts could be from Land appraisals and acquisitions, ultimate vs current design criteria to fit size and proportions to land available, and supply chain. PG&E is reviewing more than one property for the size and shape of the possibly options. The feasibility process has to be evaluated in terms of acreage, environmental impacts, facilities layout and transmission line impacts, cost, and schedule.
b	PG&E's 22rsmt-4 upgrade b) Comments for CAISO: i) Given significant delay in upgrade in-service, CAISO should take active role in making sure that the timelines of the upgrades are adhered to by PTO and also allow a framework to have IC contribute in expediting the upgrade. ii) A cluster project waiting on this LDNU cannot commercialize without certainty on the deliverability	<u>CAISO RESPONSE:</u> The comment has been noted. Interim deliverability is awarded on an annual bases, as available, until the upgrades are in-service.

	amount it can get without this upgrade. CAISO should allow cluster projects to ask for DNU headroom that's available without such delayed upgrade which will serve as contractual basis to commercialize a project.	
c	PG&E's 20rsmt-5 upgrade a) What are risks factors that can delay current ISD of Jun 2026 b) When is circuit breaker set to arrive onsite? c) What is the construction start date? Can you update this in the excel data? d) If there is any, what is the duration of an outage window (and/or other constraints) in which work related to this upgrade cannot be performed at Tesla? e) Can you explain what is the scope of CPUC permit application?	<u>PG&E RESPONSE:</u> The 20rsmt-5 - Tesla 500 kV circuit breaker 612 overstress is part of a three-circuit breaker replacement project at Tesla which started with CB442 and CB542 which are now completed. The breakers were delayed by the supplier a couple times which delayed construction start. Overall delays in this project are in part due to 500kV and 230kV scopes of work that were prioritized to follow a critical path that started with the 500kV CB622 overstress. Then the scope for Bus Reactors installed on the 230kV Buses C-D and D-E. Then followed circuit breaker overstress on CB442, CB542 installs and scheduling for CB612. In addition, 230kV expansion work for Generation Interconnections at Tesla Sub which have been on-going in 2025 and into 2026. CB612 is scheduled to go in-service in June 2026 due to starting work in the next clearance window in Fall 2025. a) Potential delays to 20rsmt-5 are Force Majure and Emergency Response taking PG&E work force away to manage unforeseen system impacts. b) The breaker is onsite. c) Construction Start: October 2025 as reported in the TDF data. d) Outage windows are subject to Grid Operations Load permissible construction time frames. Typically fall/window for this substation. The was no CPUC permit required

d	PG&E's C12P1-NPT04 upgrade a) What are the risk factors that can delay current ISD of 2026? b) When are circuit breaker replacement for 442, 452 and 462 set to arrive onsite? c) What is the construction start date ? Can you update this in the excel data? d) If there is any, what is the duration of an outage window (and/or other constraints) in which work related to this upgrade cannot be performed at Vaca Dixon sub? e) Can you explain what is the scope of CPUC permit application?	<u>PG&E RESPONSE:</u> C12P1-NPT04 – Vaca Dixon Circuit Breaker 442, 452, 462 Overstress Mitigation. In this TDF, PG&E split the reporting of C12P1-NPT04 into 3 separate order scopes CB452, CB462, and CB442. a) Potential delays to C12P1-NPT04 are Force Majure and Emergency Response taking PG&E work force away to manage unforeseen system impacts. b) The breakers are onsite c) Construction Start: Jan 2026, Apr 2026, Aug 2026 as reported in the TDF data. d) Outage windows are subject to Grid Operations Load permissible construction time frames. Typically fall/window for this substation. e) The was no CPUC permit required
e	500kV Upgrade on Hoodoo Wash-North Gila and Hassayampa-North Gila Transmission Lines is missing in the TDF spreadsheet. Can CAISO look into this or point to where it's located	The CAISO will coordinate with SDG&E on this.

7. Flynn Resource Consultants Inc.		
No	Comment Submitted	Responses
a	Moss Landing-Las Aguilas 1. PG&E who evaluated SmartValve vs. conventional air core series reactors, and then selected conventional air core series reactors ultimately. It would be good to know why/how that decision was made.	<u>PG&E RESPONSE:</u> 1. The project was proposed by CAISO and a fixed series reactor was specified. We do not need the capacitive, or continuously adjustable function of a smart valve. Our PM did a cost comparison, and the cost of a fixed reactor is about one tenth of the cost of same sized smart wire device. Given the above facts, the team chose to continue with the original proposal of a fixed reactor.
b	South of San Mateo 1. Provide capacity of Advanced Conductor 2. Provide reason why PG&E underwent an Advanced Conductor study for this project	<u>PG&E RESPONSE:</u> 1. Conductor study is currently ongoing, and we have not finalized the conductor size and Ampacity. 2. Advance conductors provide higher Ampacity with lower sag and lighter weight comparing to traditional conductors with similar size, possibly reducing the number of structure replacement which results into lower overall reconductoring cost of the line. Conductor selection is determined through individual project assessments and advance conductors are a part of this evaluation. This conductor qualifies for Advanced Conductor.
c	Garberville Area Reinforcement 1. Was advanced conductor part of the original scope? 2. Provide reason why PG&E underwent an Advanced Conductor study for this project	<u>PG&E RESPONSE:</u> 1. No, we don't specify the kind of (Conventional or Advance) conductor in the AA 2. Advance conductors provide higher Ampacity with lower sag and lighter weight comparing to traditional

		conductors with similar size, possibly reducing the number of structure replacement which results into lower overall reconductoring cost of the line. Conductor selection is determined through individual project assessments and advanced conductors are a part of this evaluation • This line was not qualified for Advanced Conductor. We are using 795 ACSR (conventional) conductor for reconductoring this line.
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