

Link to Discovery Responses: https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page																		
Count	Party Name	Data Set	Data Request	Question No.	Question ID	Question Text	Response	Requestor	Date Rec'd	Final Due Date	Date Sent	Links	Number of Acls	NDA Required	WMP Section	Category	Subcategory	
1	CAIPA	Set WMP-07	CAIPA_Set WMP-07	1	CAIPA_Set WMP-07_Q1	In the review of PG&E's WORM v3 by Energy & Environmental Economics, Inc. ("E3 Review"), the authors note: "There were also several references to PG&E asset data, now current to 2022-01-01, and inclusion of updated internally generated non-confidential data." 3) Please confirm that no asset data collected after January 1, 2022 was used in the WORM v3. 4) If asset data collected after January 1, 2022 was used in PG&E's WORM v3, please specify the dataset on which any such data was collected. 5) Please confirm that "asset data" as used in (a) and (b) is geospatial (GIS) data from the operational system of record, if not, please state the origin of the asset data.	a) All distribution asset data utilized in the Wildfire Distribution Risk Model (WDRM) v3 were extracted from PG&E's EDRIS system on January 1, 2022, with the exception of the transformer data which was extracted from EDRIS on February 2, 2022. b) See answer to part a. c) See answer to part a.	Joshua Borwick	3/27/2023	3/30/2023	3/30/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.2	Risk Methodology and Assessment	Risk Analysis Framework	
2	CAIPA	Set WMP-07	CAIPA_Set WMP-07	2	CAIPA_Set WMP-07_Q2	Page 15 of the E3 Review includes a list of components included in the WORM v4. 4) Please confirm the date the WORM v4 was finalized. 5) If the final list of components is different than what is listed in the E3 review, please provide an updated and accurate list of components that are used as inputs in PG&E's WORM v4. c) For any input included in your response to Question (2) that do not appear on Page 15 of the E3 review, please provide the latest date on which such input was updated. d) If any dates given in response to Question (2) are different from those given in question (3), please explain why they are different.	a) The Wildfire Distribution Risk Model (WDRM) v4 was finalized by approval of the Wildfire Risk Governance Steering Committee (WDRGSC) on April 1, 2022. b) The Asset group listed on page 15 of the E3 Review are included in the WDRM v4 but are grouped into the sub-categories of assets and features. Not applicable, please see response to 2b. c) Not applicable, please see response to 2b. d) Not applicable, please see response to 2b.	Joshua Borwick	3/27/2023	3/30/2023	3/30/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.2	Risk Methodology and Assessment	Risk Analysis Framework	
3	CAIPA	Set WMP-07	CAIPA_Set WMP-07	3	CAIPA_Set WMP-07_Q3	a) Please confirm the date the WDRM v4 was finalized. b) If not been finalized, please provide an update on when it will be finalized. c) Please provide a current list of components that are used as inputs in v4 of the WDRM model. d) Please state the date the PG&E asset data used in v4 of the WDRM model. If there are multiple dates, include the most recent date for any asset data used in the model, and any details on which the data used in the model was collected. e) Please confirm that "asset data" as used in part (c) is geospatial (GIS) data from the operational system of record. If not, please state the origin of the asset data.	a) The Wildfire Distribution Risk Model (WDRM) v4 has not been finalized. Model review and approval is scheduled for Q2 2023. b) The list of equipment components in the WDRM v4 has not been finalized at this time. c) The asset data for the WDRM v4 was extracted from PG&E's EDRIS on January 1, 2023. d) Please see the response to 2b.	Joshua Borwick	3/27/2023	3/30/2023	3/30/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.2	Risk Methodology and Assessment	Risk Analysis Framework	
4	MORA	Data Request No. 1	MORA_Data Request No. 1	1	MORA_Data Request No. 1_Q1	Please provide for Asset Point data for Camera, Fuse, Support Structure, and Weather Station.	In response to this request, PG&E is providing Camera and Weather Station data, as delivered in the Q4 2022 CEIS GIS Data Standard Submission. PG&E is not providing data for the Fuse Feature class as this data is confidential critical energy infrastructure information (CEII).	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	1	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
4	MORA	Data Request No. 1	MORA_Data Request No. 1	1 SUPP	MORA_Data Request No. 1_Q1 SUPP	Please provide for Asset Point data for Camera, Fuse, Support Structure, and Weather Station.	In response to this request, PG&E is providing Camera and Weather Station data, as delivered in the Q4 2022 CEIS GIS Data Standard Submission. PG&E is not providing non-confidential data from the Support Structure feature class. PG&E is not providing data for the Fuse Feature class as this data is confidential critical energy infrastructure information (CEII).	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	4	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
5	MORA	Data Request No. 1	MORA_Data Request No. 1	2	MORA_Data Request No. 1_Q2	Provide Asset Line data for Transmission Line (as permitted as non-confidential), Primary Distribution Line, and Secondary Distribution Line.	In response to this request, PG&E is providing non-confidential data for the Primary and Secondary Distribution Line Feature Classes. PG&E is not providing the Transmission Line feature class because it is confidential CEII.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
5	MORA	Data Request No. 1	MORA_Data Request No. 1	2 SUPP	MORA_Data Request No. 1_Q2 SUPP	Provide Asset Line data for Transmission Line (as permitted as non-confidential), Primary Distribution Line, and Secondary Distribution Line.	In response to this request, PG&E is providing non-confidential data for the Primary and Secondary Distribution Line Feature Classes. PG&E is not providing the Transmission Line feature class because it is confidential CEII.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
6	MORA	Data Request No. 1	MORA_Data Request No. 1	3	MORA_Data Request No. 1_Q3	Provide PPSPs Event data, including Event Log, Event Line, Event Polygon data. Please exclude customer meter data. Provide PPSPs Event Asset Damage data including photos.	In response to this request, PG&E is unable to provide PPSPs Event data, PPSPs Event Damages data, and PPSPs Damage photos since there were no PPSPs Events that took place throughout 2022.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
6	MORA	Data Request No. 1	MORA_Data Request No. 1	3 SUPP	MORA_Data Request No. 1_Q3 SUPP	Provide PPSPs Event data, including Event Log, Event Line, Event Polygon data. Please exclude customer meter data. Provide PPSPs Event Asset Damage data including photos.	In response to this request, PG&E is unable to provide PPSPs Event data, PPSPs Event Damages data, and PPSPs Damage photos since there were no PPSPs Events that took place throughout 2022.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
7	MORA	Data Request No. 1	MORA_Data Request No. 1	4	MORA_Data Request No. 1_Q4	Provide Risk Event Point data, including Wire Down, Ignition, Transmission Upstream Outage (as classified non-confidential), Distribution Upstream Outage data, Distribution Vegetation Caused Upstream Outage, Risk Event Asset Log.	In response to this request, PG&E is providing non-confidential data for the Wire Down, Ignition, Transmission Upstream Outage, Distribution Upstream Outage, Distribution Vegetation Caused Upstream Outage, and Risk Event Asset Log feature classes and related data. Additional initiative projects reported in these feature classes include data where PG&E's fuse replacements, switch replacements, surge arrester replacements, and PCSRA enabled work has been performed, and where future work is planned to take place. These are confidential CEII because they reveal physical facility and critical infrastructure locations. As such, have been removed from the WDRM.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
7	MORA	Data Request No. 1	MORA_Data Request No. 1	4 SUPP	MORA_Data Request No. 1_Q4 SUPP	Provide Risk Event Point data, including Wire Down, Ignition, Transmission Upstream Outage (as classified non-confidential), Distribution Upstream Outage data, Distribution Vegetation Caused Upstream Outage, Risk Event Asset Log.	In response to this request, PG&E is providing non-confidential data for the Wire Down, Ignition, Transmission Upstream Outage, Distribution Upstream Outage, Distribution Vegetation Caused Upstream Outage, and Risk Event Asset Log feature classes and related data. Additional initiative projects reported in these feature classes include data where PG&E's fuse replacements, switch replacements, surge arrester replacements, and PCSRA enabled work has been performed, and where future work is planned to take place. These items are confidential CEII because they reveal physical facility and critical infrastructure locations. As such, have been removed from the WDRM.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
8	MORA	Data Request No. 1	MORA_Data Request No. 1	5	MORA_Data Request No. 1_Q5	Provide photo data for Risk Events.	PG&E does not have any non-confidential or non-patented data to provide in response to this request. The photos provided in this feature class may be subject to attorney client privilege or the work product doctrine and may be subject to an ongoing investigation. Additionally, PG&E risk event photos are confidential CEII because they reveal physical facility and critical infrastructure locations.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
8	MORA	Data Request No. 1	MORA_Data Request No. 1	5 SUPP	MORA_Data Request No. 1_Q5 SUPP	Provide photo data for Risk Events.	PG&E does not have any non-confidential or non-patented data to provide in response to this request. The photos provided in this feature class may be subject to attorney client privilege or the work product doctrine and may be subject to an ongoing investigation. Additionally, PG&E risk event photos are confidential CEII because they reveal physical facility and critical infrastructure locations.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
9	MORA	Data Request No. 1	MORA_Data Request No. 1	6	MORA_Data Request No. 1_Q6	Under Initiatives, please provide Grid Hardening data, including Hardening Log, Hardening Point, and Hardening Line data. Inspection data is not requested at this time.	In response to this request, PG&E is providing non-confidential data for the System Hardening, Butte County Rehab, and 10K Underpinning WMP initiative programs that were included in the Other Initiative Log and Other Initiative Point related data and feature class. Additional WMP initiative projects reported in these feature classes include data where PG&E's fuse replacements, switch replacements, surge arrester replacements, and PCSRA enabled work has been performed, and where future work is planned to take place. These are confidential CEII because they reveal physical facility and critical infrastructure locations. As such, have been removed from the WDRM.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
9	MORA	Data Request No. 1	MORA_Data Request No. 1	6 SUPP	MORA_Data Request No. 1_Q6 SUPP	Under Initiatives, please provide Grid Hardening data, including Hardening Log, Hardening Point, and Hardening Line data. Inspection data is not requested at this time.	In response to this request, PG&E is providing non-confidential data for the System Hardening, Butte County Rehab, and 10K Underpinning WMP initiative programs that were included in the Other Initiative Log and Other Initiative Point related data and feature class. Additional WMP initiative projects reported in these feature classes include data where PG&E's fuse replacements, switch replacements, surge arrester replacements, and PCSRA enabled work has been performed, and where future work is planned to take place. These items are confidential CEII because they reveal physical facility and critical infrastructure locations. As such, have been removed from the WDRM.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
10	MORA	Data Request No. 1	MORA_Data Request No. 1	7	MORA_Data Request No. 1_Q7	Under Initiatives, please provide Other Initiative data for point, line, polygon features and the Other Initiative Log.	In response to this request, PG&E is providing WMP initiative program data for the Weather Station Installation and Optimization and Camera Installation that were included in the Other Initiative Log and Other Initiative Point related data and feature class. Additional WMP initiative projects reported in these feature classes include data where PG&E's fuse replacements, switch replacements, surge arrester replacements, and PCSRA enabled work has been performed, and where future work is planned to take place. These items are confidential CEII because they reveal physical facility and critical infrastructure locations.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
10	MORA	Data Request No. 1	MORA_Data Request No. 1	7 SUPP	MORA_Data Request No. 1_Q7 SUPP	Under Initiatives, please provide Other Initiative data for point, line, polygon features and the Other Initiative Log.	In response to this request, PG&E is providing WMP initiative program data for the Weather Station Installation and Optimization and Camera Installation that were included in the Other Initiative Log and Other Initiative Point related data and feature class. Additional WMP initiative projects reported in these feature classes include data where PG&E's fuse replacements, switch replacements, surge arrester replacements, and PCSRA enabled work has been performed, and where future work is planned to take place. These items are confidential CEII because they reveal physical facility and critical infrastructure locations.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
11	MORA	Data Request No. 1	MORA_Data Request No. 1	8	MORA_Data Request No. 1_Q8	Under Other Requested Data, please provide Red Flag Warning Day polygon data.	PG&E is providing the Red Flag Warning Day polygon data, as requested by MORA.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
11	MORA	Data Request No. 1	MORA_Data Request No. 1	8 SUPP	MORA_Data Request No. 1_Q8 SUPP	Under Other Requested Data, please provide Red Flag Warning Day polygon data.	PG&E is providing the Red Flag Warning Day polygon data, as requested by MORA.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
12	MORA	Data Request No. 1	MORA_Data Request No. 1	9	MORA_Data Request No. 1_Q9	Please provide a layer indicating calculated crowd-level risk using the methodology presented in the WMP. If independent probability and consequence layers exist, please provide these independently as well.	The method described in the 2022 WMP to aggregate model results is conducted to produce a crowd segment risk value but is not used to produce a crowd level risk value. However, the geospatial representation of crowd segments that would be provided in response to this data request involves the identification of CEII, which we are required by law to maintain as confidential and cannot provide without the requesting party agreeing to protect the information as a non-confidential document.	Joseph Mitchell	3/29/2023	4/13/2023	4/7/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
12	MORA	Data Request No. 1	MORA_Data Request No. 1	9 SUPP	MORA_Data Request No. 1_Q9 SUPP	Please provide a layer indicating calculated crowd-level risk using the methodology presented in the WMP. If independent probability and consequence layers exist, please provide these independently as well.	The method described in the 2022 WMP to aggregate model results is conducted to produce a crowd segment risk value but is not used to produce a crowd level risk value. However, the geospatial representation of crowd segments that would be provided in response to this data request involves the identification of CEII, which we are required by law to maintain as confidential and cannot provide without the requesting party agreeing to protect the information as a non-confidential document.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	1	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation	
13	CAIPA	Set WMP-08	CAIPA_Set WMP-08	1	CAIPA_Set WMP-08_Q1	PG&E WMP status: The EMV Program concluded at the end of 2022. PG&E will continue to strengthen our other existing VM programs. PG&E is transitioning the maintenance of enhanced clearance projects that were achieved in EMV to Resource VM pilots. We established routine maintenance requirements for electric distribution circuits where EMV scope enhanced clearance where EMV was not implemented. These programs inform clearance based on available outage data and trends, as well as site and tree specific conditions. While not called out as a uniform scope, clearances in portions of these higher risk segments may have transitioned to EMV. b) Please describe how PG&E intends to strengthen its other existing VM programs as stated above. c) Does PG&E intend to achieve enhanced clearances in areas where they have not already been achieved through EMV, or is PG&E only intending to maintain existing enhanced clearances? d) If PG&E will pursue the achievement of enhanced clearances in new locations, please provide PG&E's strategy and methodology for the following: i. Deciding which circuits and locations need enhanced clearance ii. Deciding which trees to trim in a given project location iii. Deciding the desired clearance height iv. Setting the schedule and sequence of enhanced clearance projects v. If PG&E only intends to maintain existing enhanced clearances, please explain why.	a) PG&E is extending the minimum clearance recommendations of 12 feet in HFTD (per G.O. 95 Rule 35, Appendix E) to 12 feet within HPA. 2) There is an anticipated increase of the removals as time as it is the first course of work recommended at the time of being in the Distribution Vegetation Inspection Procedure (DVIP). Funding has been provided to account for increased removals. 3) There are tighter controls through reports and monitoring of work completion metrics. b) PG&E will maintain clearances where EMV work occurred. PG&E will also be prioritizing a minimum radial clearance of 12 feet throughout the system within HFTD and HPA. The new program, Vegetation Management for Operational Mitigation (VMOM) and Focused Tree Inspection, are likely to result in individual trees that warrant enhanced clearance where EMV was not implemented. These programs inform clearance based on available outage data and trends, as well as site and tree specific conditions. While not called out as a uniform scope, clearances in portions of these higher risk segments may have transitioned to EMV. c) Addressing the recommendation of 12 feet minimum clearance in HFTD/HPA, at time of trim 2) Deciding which locations need enhanced clearance through DVIP execution and T1 Pilot. 3) Based on specific ACC outage analysis of species and failure types when available. d) Based on analysis of outage data and trends to ACC. Additionally, any tree which is within MDR, will be within the MDR before next work completion cycle or showing signs of imminent failure before next work completion cycle. e) Minimum of 12 feet of clearance or removal clearance to mitigate potential impacts to facilities if the tree or portion of falls were to occur. f) PG&E provides enhanced clearance projects according to the Wildfire Distribution Risk Model (WDRM) and attempts to complete work in order of highest to lowest risk whenever possible. However, operational factors including but not limited to access issues due to snow or weather, environment limited operating periods, and agency restrictions among other may lead to a lower ranked project being completed ahead of a higher ranked project. g) PG&E will maintain existing enhanced clearances as well as establishing the maintenance starting as a minimum of 12 feet.	Holly Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/us/safety/emergency-preparedness/natural-disasters/wildfire-mitigation-plan/discovery-data-requests-page	0	NA	B.2.2.2.6	Vegetation Management and Inspection	Discouraged Programs	

14	CaPA	Set WMP-08	CaPA_Set WMP-08	2	CaPA_Set WMP-08_02	<p>a) For risk program the use of "transitional" represents the program transition from EVM to our new Tree Inventory program which will focus on weeding down the risk associated with the remaining 20K trees. These trees were identified under EVM guidelines and will be over a period of time based on resolution of constraints or other factors that impeded completion of work.</p> <p>b) Yes, but not under the Tree Removal Inventory Program, which is focused on removing risk from previously listed with a removal prescription as part of the EVM program. Tree tree programs, Vegetation for Operational Mitigation (VCOM) and Focus Tree Inspections (FTI) will identify new trees for the sort of work identified in this inventory. Additionally, if any priority trees are discovered while completing the FTI scope of work, they will be added to the list for work consistent with all other VM programs.</p> <p>c) 1) For WMOE, POE will use EPSS enabled outage data, historical VM outage data, and customer outage impact data.</p> <p>2) For FTI, Areas of Concern (AOCs) were geographically through a cross-functional effort utilizing county-based regional reviews to create polygons which are identified areas. Initial polygon development utilized WORMS correspondence reviews, Public Safety Specialist cross-checked evaluations, 30-year lookback of meteorology data, and analysis, identified PPS Lookback Program, PPS's Vegetation Damage locations, vegetation caused ignition data, and vegetation caused outage data. The process is intended to be performed annually to identify trees, models, or emerging available data indicated higher likelihood of the caused damage or outages.</p> <p>3) NA</p> <p>4) The ongoing inspection and evaluation work will focus on the remaining 20K trees that were identified for removal at the conclusion of EVM that had a TAT result other than ABATE.</p> <p>5) The 2023 Tree Inspection Program scope of work is targeted to a re-inspection of approximately 28K trees that had a TAT result other than ABATE. Once re-inspected if it is determined that a tree does not need removal the tree will be inspected annually going forward during the Routine Maintenance and Second Plant inspections.</p> <p>6) No, all of POE's active Vegetation Management programs have and will continue to manage inventories of high-risk areas going forward.</p> <p>7) Please state the frequency of the "ongoing re-inspection and evaluation work".</p> <p>8) How many years will the abatement/"multi-year program" last?</p> <p>9) After the "multi-year program" ends, will POE cease to have a tree inventory?</p> <p>10) If the answer to part (8) is yes, please explain how POE intends to address vegetation in high-risk areas going forward.</p> <p>11) If the answer to part (9) is no, please explain how the tree inventory will be maintained and used going forward.</p> <p>12) When is it stated that "POE estimates that our EVM inventory included more than 300,000 trees at the end of 2022," please explain why this number is an estimate rather than a precise number.</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	8.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
15	CaPA	Set WMP-08	CaPA_Set WMP-08	3	CaPA_Set WMP-08_03	<p>Regarding the new "VM for Operational Mitigation" described in section 8.2.2.3.3 of POE's WMP, POE states this is a new transitional program for 2023 stemming from the conclusion of the EVM program. This program is intended to help reduce outages and potential ignition using a risk-informed, targeted plan to mitigate potential vegetation contact based on historic vegetation outages or EPSS-enabled outages. POE will initially focus on mitigating potential vegetation contact in CPDs that have experienced vegetation-caused outages. Scope of work will be developed by using EPSS and historical outage data and vegetation failure from the WORMS risk model. EPSS-enabled outages vegetation outages extent of condition prescriptions may generate additional tree work.</p> <p>a) Please explain what is meant by the term "transitional" in the first instance.</p> <p>b) Please explain how POE will determine which areas are high-risk vegetation outages extent of condition prescriptions may generate additional tree work.</p> <p>c) When will POE develop the scope of work for this program?</p> <p>d) How frequently will POE update the scope of work for this program (i.e., annually or quarterly)?</p> <p>e) Please explain POE's methodology for historical data to contribute to the scope of work for this program.</p> <p>f) Please explain how POE will use EPSS data to contribute to the scope of work for this program.</p> <p>g) Please explain how POE will use historical outage data to contribute to the scope of work for this program.</p> <p>h) Please explain how POE will use "vegetation failure from the WORMS risk model" to contribute to the scope of work for this program.</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	8.2.2.3	Vegetation Management and Inspections	VM for Operational Mitigation
16	CaPA	Set WMP-08	CaPA_Set WMP-08	4	CaPA_Set WMP-08_04	<p>Regarding the new "Focused Tree Inspections" described in section 8.2.2.3.5 of POE's WMP, POE states this is a new transitional program for 2023 stemming from the conclusion of the EVM program. POE is furthering AOCs to higher risk areas to address high risk areas that have experienced higher volume of vegetation damage during PPS events, outages, and/or ignitions. We have conducted a county-by-county review of our GIS data to identify areas where focused inspection programs can be evaluated to determine appropriate courses of action. Focused Tree Inspections will be piloted at at least one area. The pilot will develop and implement guidelines that inform inspections.</p> <p>a) Please explain what is meant by the term "transitional" in the first instance.</p> <p>b) Does "AOCs" stand for "Areas of Concern" in this instance? If not, please define it.</p> <p>c) Please describe POE's methodology for historical data to contribute to the scope of work for this program.</p> <p>d) How does POE determine which areas are high-risk vegetation outages extent of condition prescriptions may generate additional tree work?</p> <p>e) How will POE determine which county or counties to assess a pilot at first?</p> <p>f) Scope of work.</p> <p>g) Budget.</p> <p>h) Qualification objectives.</p> <p>i) Success metrics.</p> <p>10) Please describe the following regarding the guidelines that POE will develop based on the pilot(s), as mentioned above:</p> <p>The referenced content of the guidelines.</p> <p>11) How POE expects the guidelines to inform inspections.</p> <p>12) What POE expects to accomplish through pilot guidelines.</p> <p>13) Please describe the steps that POE expects a "focused tree inspector" to include.</p> <p>14) Please describe the format "focused tree inspection" data reports previously performed as part of EVM program. Describe the similarities and differences.</p> <p>15) What metrics and criteria will POE use to determine whether a tree passes or fails a "focused tree inspection"?</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
17	CaPA	Set WMP-08	CaPA_Set WMP-08	5	CaPA_Set WMP-08_05	<p>POE states on p. 539 of its WMP: POE is restructuring the VM Program starting in 2023. Based on recent data and analysis, the risk reduction of the EVM Program is less than the risk reduction from the EPM Program that was introduced in 2018. POE is reviewing the abatement/"data and analysis" that shows that the risk reduction of the EVM program is less than the risk reduction from the EPM program.</p> <p>a) Please provide any available workpapers, reports, or other documents that support the statement outlined above.</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	8.2.1.4	Vegetation Management and Inspections	Fab-In Mitigation
18	CaPA	Set WMP-08	CaPA_Set WMP-08	6	CaPA_Set WMP-08_06	<p>POE states on p. 539 of its WMP: POE is restructuring the VM Program starting in 2023. Based on recent data and analysis, the risk reduction of the EVM Program is less than the risk reduction from the EPM Program that was introduced in 2018. POE is reviewing the abatement/"data and analysis" that shows that the risk reduction of the EVM program is less than the risk reduction from the EPM program.</p> <p>a) Please provide any available workpapers, reports, or other documents that support the statement outlined above.</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	8.2.1.4	Vegetation Management and Inspections	Fab-In Mitigation
19	CaPA	Set WMP-08	CaPA_Set WMP-08	7	CaPA_Set WMP-08_07	<p>On pp. 314-316 of POE's WMP, POE divides its operational mitigations into four different groups. Group 2 includes "inspections and maintenance programs and other permanent mitigations we deploy and/or implement new technologies so that we no longer need to exceed compliance requirements." For the following Group 2 mitigations, please state whether POE will determine that no longer need to exceed compliance requirements, and state the basis for such a determination:</p> <p>1) Substation Defensible Space 2) Visual Management 3) Focused Tree Inspections 4) Transmission Integrated VM 5) Emergency Response VM</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	7.2.3	Wildfire Mitigation Strategy Development	Interim Mitigation Initiatives
20	CaPA	Set WMP-08	CaPA_Set WMP-08	8	CaPA_Set WMP-08_08	<p>On pp. 314-316 of POE's WMP, POE divides its operational mitigations into four different groups. Group 2 includes "inspections and maintenance programs and other permanent mitigations we deploy and/or implement new technologies so that we no longer need to exceed compliance requirements." For the following Group 2 mitigations, please state whether POE will determine that no longer need to exceed compliance requirements, and state the basis for such a determination:</p> <p>1) Substation Defensible Space 2) Visual Management 3) Focused Tree Inspections 4) Transmission Integrated VM 5) Emergency Response VM</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	7.2.3	Wildfire Mitigation Strategy Development	Interim Mitigation Initiatives
21	CaPA	Set WMP-08	CaPA_Set WMP-08	9	CaPA_Set WMP-08_09	<p>Regarding the new "Tree Removal Inventory Program" described in section 8.2.2.4 of POE's WMP, POE states this is a new transitional program for 2023 stemming from the conclusion of the EVM program. This program is intended to help reduce outages and potential ignition using a risk-informed, targeted plan to mitigate potential vegetation contact based on historic vegetation outages or EPSS-enabled outages. POE will initially focus on mitigating potential vegetation contact in CPDs that have experienced vegetation-caused outages. Scope of work will be developed by using EPSS and historical outage data and vegetation failure from the WORMS risk model. EPSS-enabled outages vegetation outages extent of condition prescriptions may generate additional tree work.</p> <p>a) Please explain what is meant by the term "transitional" in the first instance.</p> <p>b) Does POE intend to identify new trees for the sort of work identified in this inventory?</p> <p>c) If the answer to part (b) is yes, please explain how POE intends to address vegetation in high-risk areas going forward.</p> <p>d) If the answer to part (c) is no, please explain why the tree inventory will be maintained and used going forward.</p> <p>e) When is it stated that "POE estimates that our EVM inventory included more than 300,000 trees at the end of 2022," please explain why this number is an estimate rather than a precise number.</p>	July Wehman	3/30/2023	4/5/2023	4/5/2023	https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/ https://www.epsc.com/epsc_globe/communities/infrastructure/vegetation-management/vegetation-management/	0	NA	8.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory

22	CaPA	Set WMP-08	CaPA_Set WMP-08	10	CaPA_Set WMP-08_010	<p>The Table 8-12 "Vegetation Management Implementation Objectives, PG&E's Focused Tree Inspection Program in currently under development. By the end of 2023, PG&E plans to "Fully implement AOC cross-functional team to implement a proactive approach at AOC".</p> <p>Given that PG&E's EVM program has been discontinued, and that the Focused Tree Inspection Program has not yet been established, this will PG&E assess the risk of tree failure during the period from 2023-2027.</p>	PG&E will continue to assess the risk of tree failure during the period from 2023-2027 through the Distribution Routine Patrol program accordingly. The identification of hotspots or other emergent priority trees is expanded to all VM tree types. <p>In addition to the Focused Tree Inspection Program, PG&E has also introduced the Tree Removal Inventory (TRI) and the Distribution Management by Operation (DMBO) programs which will also be implemented to assess the risk of tree failure during the same period as the current routine patrol.</p>	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections	
23	CaPA	Set WMP-08	CaPA_Set WMP-08	11	CaPA_Set WMP-08_011	<p>Table 8-4, PG&E VM Targets, states that PG&E will collect LIDAR data on all overhead Transmission (17.500 circuit miles).</p> <p>Table 5.2, Electrical Infrastructure, states that PG&E has a total of 18,111 circuit miles of overhead transmission line.</p> <p>Table 8-4, PG&E VM Targets, states that PG&E will collect LIDAR data on approximately 600 overhead circuit miles of transmission line.</p> <p>a) Does PG&E plan to not collect LIDAR data on approximately 600 overhead circuit miles of transmission line?</p> <p>b) If the answer to part (a) is no, please explain why.</p> <p>c) If the answer to part (a) is no, please explain why Table 8-4 shows a LIDAR target that is smaller than the total miles of PG&E's overhead transmission line.</p>	a) NA. b) NA. c) The difference between LIDAR Transmission Inspections required on 17500 and the LIDAR vector's data is due largely to parallel circuits and some geometry differences, miles are confirmed against circuit location and length from the LIDAR data. The LIDAR data is used to identify hotspots and LIDAR data is used to identify hotspots and LIDAR data is used to identify hotspots. PG&E continues to use ETOS as well as this in our asset data.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.2.1.1	Vegetation Management and Inspections	Routine Transmission HERC and Non-HERC	
24	CaPA	Set WMP-08	CaPA_Set WMP-08	12	CaPA_Set WMP-08_012	<p>Table 8-4, PG&E VM Targets, states that Each of the 3 programs (Routine Distribution, Routine Transmission and Pole Clearing) must achieve a 95% quality verification audit results pass rate.</p> <p>* Please describe the actions PG&E will be taking during the 2023-2025 period if a program does not achieve a 95% pass rate on quality verification audits.</p>	Should a program fall below a 95% pass rate, catch back plans will be developed in partnership with VM execution to mitigate for specific areas of deficient rate.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory	
25	CaPA	Set WMP-08	CaPA_Set WMP-08	13	CaPA_Set WMP-08_013	<p>Table 8-18, "Vegetation Management QV Program, lists the following audit pass results for 2022 VM work:</p> <p>Distribution 91.3% Transmission 94.2% Vegetation Control Pole Clearing 90.3%</p> <p>a) Please describe any actions PG&E has taken or plans to take to improve the Distribution VM audit results pass rate from 91.3% to 95% in 2023. Please include the timeline for completing these actions.</p> <p>b) Please describe any actions PG&E has taken or plans to take to improve the Transmission VM audit results pass rate from 94.2% to 95% in 2023. Please include the timeline for completing these actions.</p> <p>c) Please describe any actions PG&E has taken or plans to take to improve the Pole Clearing VM audit results pass rate from 90.3% to 95% in 2023. Please include the timeline for completing these actions.</p>	a) Improved quality verification has been established for 2023, allowing for greater insight into overall VM work product throughout and risk identification/mitigation. Clear definitions of acceptance criteria, sampling methodology, population eligibility, and pass rate calculations were established and communicated across the VM organization prior to beginning 2023 audits. b) Improved quality verification has been established for 2023, allowing for greater insight into overall VM work product throughout and risk identification/mitigation. Clear definitions of acceptance criteria, sampling methodology, population eligibility, and pass rate calculations were established and communicated across the VM organization prior to beginning 2023 audits. c) Improved quality verification has been established for 2023, allowing for greater insight into overall VM work product throughout and risk identification/mitigation. Clear definitions of acceptance criteria, sampling methodology, population eligibility, and pass rate calculations were established and communicated across the VM organization prior to beginning 2023 audits.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.5.1	Vegetation Management and Inspections	Quality Assurance and Quality Verification	
26	CaPA	Set WMP-08	CaPA_Set WMP-08	14	CaPA_Set WMP-08_014	<p>Regarding the "Distribution Second Patrol" described in section 8.2.2.2 of PG&E's WMP, PG&E states: "PG&E has implemented a plan to complete the identified dead/dying tree work within 180 days for HTFD areas and within 365 days for non-HTFD areas."</p> <p>a) What specific steps, actions, or measures are included in the plan noted in the quote above – in other words, what specific steps is PG&E taking to ensure that dead/dying tree work will be completed within the stated timeframe?</p> <p>b) Does PG&E determine that 180 days is an appropriate and prudent timeframe for completing dead/dying tree work in HTFD areas?</p> <p>c) Does PG&E plan to complete identified dead/dying tree work within 180 days in HTFD areas for its Distribution Routine Patrol (section 8.2.2.1)?</p> <p>d) If the answer to part (c) is no, please explain why not.</p> <p>e) What is PG&E's expected time to complete dead/dying tree work identified during its Distribution Routine Patrol?</p>	a) To ensure that dead/dying tree work is completed within 180 days in HTFD and 365 days in non-HTFD, PG&E VM has developed a process to report out in Daily Operating Reviews and Weekly Operating reviews at multiple functional levels including VM leadership and VM execution. The status of dead/dying trees and their timelines and business status. This measure ensures visibility and accountability at the regional level. b) PG&E is currently reviewing the timeline to complete dead/dying tree work within 180 days in HTFD areas based on OSO 50 Rule 19 priority level 2, for corrective actions in HTFD areas. c) Yes, PG&E does plan to address identified dead/dying tree work in the stated timeframe in HTFD and non-HTFD in Distribution Routine Patrol. d) NA. See e. above. e) The timeframe to complete dead/dying tree work identified during Distribution Routine Patrol is 180 days in HTFD and 365 days in non-HTFD.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.2.2.2	Vegetation Management and Inspections	Distribution Second Patrol	
27	CaPA	Set WMP-08	CaPA_Set WMP-08	15	CaPA_Set WMP-08_015	<p>Regarding the "Defensible Space Inspection" described in section 8.2.3.1 of PG&E's WMP, PG&E states: "Landowner related issues continue to prevent PG&E from achieving 100 percent defensible space completion status at locations where substitution defensible space zones extend into privately owned property."</p> <p>a) Where substitution defensible space zones extend into privately owned property, what is PG&E's process for completing defensible space inspections?</p> <p>b) Does PG&E plan to address the 2023-2025 WMP period to address landowner related issues in order to achieve the highest possible defensible space completion status?</p>	a) When defensible space zones extend onto private property, outreach to such landowners is made in advance to obtain permission to enter and conduct inspection. If access is granted, the inspection is executed with full adherence and PRC 4291 compliance prescription determined. If access is denied and found to be without applicable easements, then legal rights or valid entry requirements, the inspection is not conducted and a written document for future reference as PG&E does not have the right to conduct defensible space inspections on private property not owned by the utility. b) Annual defensible space inspections do serve as an opportunity to engage prior refusal landowners. Changes of ownership, changes in landowner opinion, new landowner defensible space confidence or other support may occur. c) PG&E is unable to contact a landowner regarding their preference for wood chips, crews will remove the wood chips when safe to do so. If access does not allow for chipping and wood chip removal, crews will pull and scatter debris into a container with applicable regulations. d) There are multiple real-time opportunities for landowners to request wood management. PG&E field personnel attempt to engage with landowners at the time of tree work and wood management professionals at the time of inspections, tree work and post-tree work verification. Field personnel may also have door hangers or other information available. Landowners are encouraged. Following active emergency response situations where landowners may not be present, we initiate regional post-event outreach. This may include letters, door hangers, interactive voice response and/or personal visits. We also maintain a list of landowners who are unable to be contacted. e) Our dedicated customer team is equipped to receive, record, and process a landowner's request for wildlife and wood management through our internal customer relationship management database. This includes actions that come through field personnel. f) Yes, PG&E's wood management preferences are effective immediately. We work as quickly and efficiently as possible to manage and haul accessible wood and address concerns, public safety, access or environmental and wildlife management. PG&E's wood management preferences are dependent on landowner permission, ground conditions, and the ability for our crews to safely perform the Wood Management program. Landowners may also be able to permit PG&E to perform the Wood Management program at any time before, during or after tree work is conducted. Field personnel as well as dedicated customer team can work directly with landowners to address their wood management preferences through our internal customer management database in person, by phone or by email. g) Landowner wood management preferences are indicated in the questions personnel through our work management platform. h) Wood management preferences apply to an instance of tree work activity on a property. If new tree work is scheduled, we would coordinate with the landowner on their preferences again as preferences may vary by tree species, site or specific location. We are always looking for opportunities to better understand landowner Wood Management program, including new methods for recording landowner preferences. i) Wood management preferences are primarily received, recorded and reported to by our dedicated customer team through our internal system and case management process.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.3.1	Vegetation Management and Inspections	Defensible Space Inspection	
28	CaPA	Set WMP-08	CaPA_Set WMP-08	16	CaPA_Set WMP-08_016	<p>Regarding "Wood and Slash Management" described in section 8.2.3.2 of PG&E's WMP, PG&E states: "Once we set on site or removed site based on owner preferences" PG&E further states that "Wood Management is a voluntary program in which property owners may opt-in to participate."</p> <p>a) If PG&E is unable to contact a landowner, how does it manage wood chips?</p> <p>b) How does PG&E ensure that landowners are aware of the utility's Wood Management program?</p> <p>c) Once a landowner opts into the Wood Management program, how quickly does the program become effective? E.g., could a landowner opt-out while VM work is being performed?</p> <p>d) How does PG&E return VM contractors of the landowner's Wood Management preferences?</p> <p>e) Does the Wood Management opt-in remain valid indefinitely or must landowners re-view their preferences on a regular basis?</p> <p>f) If a landowner has complaints regarding wood and slash management by PG&E VM employees or contractors, what is the process for receiving, recording, and responding to such complaints?</p>	a) PG&E's wood management preferences are effective immediately. We work as quickly and efficiently as possible to manage and haul accessible wood and address concerns, public safety, access or environmental and wildlife management. PG&E's wood management preferences are dependent on landowner permission, ground conditions, and the ability for our crews to safely perform the Wood Management program. Landowners may also be able to permit PG&E to perform the Wood Management program at any time before, during or after tree work is conducted. Field personnel as well as dedicated customer team can work directly with landowners to address their wood management preferences through our internal customer management database in person, by phone or by email. b) Landowner wood management preferences are indicated in the questions personnel through our work management platform. c) Wood management preferences apply to an instance of tree work activity on a property. If new tree work is scheduled, we would coordinate with the landowner on their preferences again as preferences may vary by tree species, site or specific location. We are always looking for opportunities to better understand landowner Wood Management program, including new methods for recording landowner preferences. d) Wood management preferences are primarily received, recorded and reported to by our dedicated customer team through our internal system and case management process. e) PG&E's wood management preferences are effective immediately. We work as quickly and efficiently as possible to manage and haul accessible wood and address concerns, public safety, access or environmental and wildlife management. PG&E's wood management preferences are dependent on landowner permission, ground conditions, and the ability for our crews to safely perform the Wood Management program. Landowners may also be able to permit PG&E to perform the Wood Management program at any time before, during or after tree work is conducted. Field personnel as well as dedicated customer team can work directly with landowners to address their wood management preferences through our internal customer management database in person, by phone or by email. f) Landowner wood management preferences are indicated in the questions personnel through our work management platform. g) Wood management preferences apply to an instance of tree work activity on a property. If new tree work is scheduled, we would coordinate with the landowner on their preferences again as preferences may vary by tree species, site or specific location. We are always looking for opportunities to better understand landowner Wood Management program, including new methods for recording landowner preferences. h) Wood management preferences are primarily received, recorded and reported to by our dedicated customer team through our internal system and case management process.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management	
29	CaPA	Set WMP-08	CaPA_Set WMP-08	17	CaPA_Set WMP-08_017	<p>Regarding "High-Risk Species" described in section 8.2.3.3 of PG&E's WMP, PG&E states: "There are no regulatory standards for high-risk species."</p> <p>a) Does PG&E plan to develop governing standards for high-risk species?</p> <p>b) If the answer to part (a) is no, when does PG&E expect to complete development of such standards?</p> <p>c) If the answer to part (a) is no, please explain why.</p>	a) PG&E does not currently have standards specific to high-risk species. Trees identified during these inspection cycles that require mitigation per PRC-2020 and OSO 50 Rule 19 are expected to be identified and listed for tree removal regardless of species. A new program, Focused Tree Inspection (FTI) is being rolled out in Q2 2023 and will incorporate regional ecotype analysis informed by tree caused outage winter Area of Concern AOC developed in Q4 2022. These plans are expected to analyze species and failure types. The experience and findings during inspection will determine which programs are best suited to incorporate species specific guidance due to associated higher severity. b) Development of any standards related to high-risk species is still being determined and contingent upon completion of FTI data in 2023. A separate workstream is currently in progress to develop standards for high-risk species. c) PG&E does not currently have standards specific to high-risk species. Trees identified during these inspection cycles that require mitigation per PRC-2020 and OSO 50 Rule 19 are expected to be identified and listed for tree removal regardless of species. A new program, Focused Tree Inspection (FTI) is being rolled out in Q2 2023 and will incorporate regional ecotype analysis informed by tree caused outage winter Area of Concern AOC developed in Q4 2022. These plans are expected to analyze species and failure types. The experience and findings during inspection will determine which programs are best suited to incorporate species specific guidance due to associated higher severity.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.3.6	Vegetation Management and Inspections	High-Risk Species	
30	CaPA	Set WMP-08	CaPA_Set WMP-08	18	CaPA_Set WMP-08_018	<p>PG&E's WMP states, in Table 8-9.3, VM Field QV Metrics Report, that pass rates are "not a WMP target" for 2023-2025.</p> <p>Please explain why PG&E has not set target pass rates for VM Field QV for 2023-2025.</p>	The Quality Management team has aligned on setting target pass rates at 88% for Field Quality Control Active Observation Program for the following core vegetation management programs: Routine Distribution, Routine Patrol, Distribution, Vegetation Control, and Routine Transmission.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	8.2.5.2	Vegetation Management and Inspections	Quality Control	
31	CaPA	Set WMP-08	CaPA_Set WMP-08	19	CaPA_Set WMP-08_019	<p>Table 8-19, Priority 1 Priority 2 and Second Patrol Trees Categorized by Age, shows 296 priority 1 or 2 trees that were inspected more than 180 days prior to February 28, 2023.</p> <p>Please provide a table with the following additional information for these 296 trees:</p> <p>a) The exact number of days since the last inspection, as of February 28, 2023.</p> <p>b) The current priority level of the tree.</p> <p>c) The HTFD set where the tree is located.</p> <p>d) PG&E's expected remediation date for the tree.</p>	The data for the 296 P1/P2/Second Patrol trees can be found on "WMP/Discovery2023_DR_Cat/Database/008-020/SA0201". For the Priority 1 Priority 2 Trees out of the set of 296, please refer to tab "P2 Data". a) Please see "Age" in Column F on tab "P2 Data" for the age 2 days since the last inspection as of February 28, 2023. b) Please see "Priority" in Column E on tab "P2 Data" for the priority level. c) Vegetation is determined to be an immediate risk to PG&E facilities, described as a Priority 1 Condition, the condition will be mitigated within 24 hours of identification as long as conditions are safe for the tree crew to proceed with work. d) Vegetation identified as pending Priority 2 work within the RFW will be reviewed and mitigated as outlined in the VM Priority Tag Procedure (TD T102P-17). e) Please see "Mitigation" in Column G on tab "P2 Data" for the inspection date. f) Please see "HTFD" in Column H on tab "P2 Data" for the HTFD tag. g) The 296 trees out of the set of 296, please refer to tab "TM Data". Please note, the quantity of trees that correspond to the "TreeRiskID" can be located on Column I of the TM Data tab in attachment. h) Please see "Age" in Column F on the TM Data for the age in days since the last inspection as of February 28, 2023. i) Please see "Priority" in Column F on tab "TM Data" for the priority level. j) "Routine" classification is normal compliance work prioritized to be completed during the normal work cycle. k) "Inspected" classification is work that needs to be completed as part of reliability. l) "Accumulated" classification are trees that are out of compliance and need to be worked before the next work cycle begins. m) Please see "Mitigation" in Column G on tab "TM Data" for the last inspection date as of February 28, 2023. n) Please see "HTFD" in Column H on tab "TM Data" for the HTFD tag. o) We do not have a source for tracking planned worked dates for individual trees and are unable to provide the data at this time.	Holly Weisman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	1	NA	8.2.6	Vegetation Management and Inspections	Open Work Orders	
32	CaPA	Set WMP-08	CaPA_Set WMP-08	1	CaPA_Set WMP-08_01	<p>P. 10 of PG&E's WMP states, "We have completed certain programs and removed some less impactful targets from the 2023-2025 WMP."</p> <p>a) Please list the "less impactful" targets that were removed from the 2023-2025 WMP.</p> <p>b) For each target in part (a), please explain how PG&E determined that the target was "less impactful."</p>	a) The targets that were included in the 2022 WMP but not included in the 2023 WMP are identified below. Please note that we do not necessarily consider each of these to be "less impactful" in all situations. Instead, they are more precisely described as not being the best choice for our wildfire mitigation portfolio in this particular context at this time. -Weather Station Installation and Optimization - PG&E did not include a target for weather station installation in the 2023-2025 WMP because our weather station network is meeting full capacity with more than 1,400 weather stations installed. We will continue to evaluate the need for additional stations. -High-Capacity Camera Installations - PG&E has approved over 600 cameras covering 90 percent of the HTFD for 2 and 3rd fire areas and, given this saturation, we are not currently planning to install new cameras at this time. -Fire Detection Installations - PG&E does not have a 2023 Target for EFD installations. We plan to develop and implement processing and procedures to analyze EFD alarms, conduct field investigations and track mitigation activities to effectively use EFD technology prior to deploying additional sensors. -Distribution Scheduling Deviation - PG&E has completed the transmission and distribution PPSB the scheduling activities. Because there is no additional benefit to installing additional sensors, we are not including these mitigation initiatives in this WMP. -Temporary Distribution Microgrids - An additional temporary distribution microgrid will be built in 2023. The program will close after improvement projects on existing sites are completed. PG&E may develop other distribution microgrids supported by temporary or permanent generation resources such as the Tree Inspection, Distribution, and Distribution Program and Microgrid Incentive Program. -Remote Grid - PG&E is currently in development Remote Grids as an alternative to, or in conjunction with, system hardening or other mitigation efforts. Even though we do not have a quantitative target for remote grids installed, they still continue to be part of our wildfire mitigation portfolio. -Enhanced Vegetation Management (EVM) - PG&E's EVM program concluded at the end of 2022. -EPSS Reliability Improvements - This initiative was a target in PG&E's 2022 WMP. In our 2023 WMP this target becomes an objective (OM-07) through which we will update our EPSS reliability study annually. -Community Engagement Meetings - In the 2022 WMP Community Engagement Meetings transitioned from a target to 3-year and 10-year objectives (CD-01 and CD-03). b) Please see the response to part (a), which includes the requested information.	Holly Weisman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/page/pge/about/compliance/fulfillingourresponsibilities/vegetationmanagement	0	NA	1		Executive Summary & Overview	NA

33	CaPA	Set WMP-00	CaPA_Set WMP-00	2	CaPA_Set WMP-00_02	<p>P-107 of PGE's WMP states, "Increased temperatures can cause electrical equipment to age more quickly which will increase the need for more frequent asset replacement. Higher temperatures may cause equipment to fail resulting in customer outages." a) What steps has PGE taken to mitigate the increased risk of asset failure anticipated from rising temperatures? b) What steps does PGE plan to take during the 2023-2025 WMP period to mitigate the increased risk of asset failure anticipated from rising temperatures?</p>	<p>PGE notes that the statement is included in the 2023-2025 WMP as a general observation about the sensitivity of power electric assets to varying temperatures that exceed equipment design specifications. It does not constitute a finding or recommendation. PGE's current equipment design specifications are based on historical weather data. Through thorough evaluation of the vulnerability (meaning, the exposure of an asset to a specific climate hazard) as well as an analysis of the likelihood of that climate hazard to a given asset or of the grid as a whole, PGE will file its first Climate Vulnerability Assessment pursuant to CPLC Decision 20-08-048 in May 2024. In addition to the answers provided below, the 2022 Climate Strategy Report contains a significant amount of detail on the Company's climate mitigation and adaptation activities. a) PGE has substantial existing adaptive capacity to manage the increased risk of asset failure driven by heat-related climate hazards and is taking the following steps to mitigate this risk: 1) PGE routinely monitors, maintains, and replaces heat-sensitive electric equipment as part of the company's core mission to deliver safe, clean, affordable, reliable energy. 2) PGE has developed a predictive transformer failure model to better target existing transformer replacement efforts. 3) PGE is currently reviewing electric design standards to ensure that they account for projections of future heat conditions. This will ensure that equipment at the end of its useful life will be replaced with equipment designed to be able to prevent failures in more extreme conditions. b) In addition to the above, PGE's Climate Resilience Team provides relevant climate projection data to PGE's various service departments and the Environmental Management and Mitigation Planning (EMMP) Ring. Climate data is integrated into PGE's asset lifecycle models to ensure that climate projection data can be translated into near-term risk assessments while maintaining statistical validity (climate projections cannot and should not be used to "predict" weather events in a given future year). Please see PGE's 2020 EMMP Ring for more information about the treatment of the climate change cross cutting risk factor. c) In the 2023-2025 period, PGE will continue to manage the risk of asset failure utilizing existing capabilities as mentioned above, including advancing the quantitative Risk Assessment and Mitigation Planning Ring which is focused on quantifying the probability and consequences of asset failure and identifying cost-effective mitigations. Climate projections provide directional guidance as to changes in the average frequency and severity of climate hazards over decades and cannot and should not be used to predict the occurrence of specific weather events in a given year or even an annual or multi-year period. In other words, climate projections centered on the year 2052 versus 2053 will show similar conditions or severity. This does not preclude the occurrence of specific weather events outside between 2023 and 2025. In addition to the elements of adaptive capacity mentioned above, PGE also maintains a robust Emergency Preparedness and Response function to maintain safety and reliability when acute environmental conditions occur.</p>	<p>July Weinman 4/4/2023 4/7/2023 4/7/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	0	NA	5.3.4.2	Overview of the Service Territory	Climate Change Phenomena and Trends
34	CaPA	Set WMP-00	CaPA_Set WMP-00	3	CaPA_Set WMP-00_03	<p>P-596 of PGE's WMP states, "In 2022 we continued our assessment through the Electric Program Investment Charge 3.45, "Automated Fire Detection from Wildlife Alert Cameras," program. Through our assessment period we determined that AI detection of animal cameras will improve our detection system and in 2023 we will select a vendor to install AI detection on our cameras." a) How did PGE determine that AI detection would improve its detection system? b) Please identify the extent to which PGE anticipates AI detection will improve PGE's detection system? c) Please provide any available studies, analyses or reports to support your statements in response to parts (a) and (b). d) As of the beginning of 2023, how much has PGE spent on the Electric Program Investment Charge 3.45, "Automated Fire Detection from Wildlife Alert Cameras," program? e) How much does PGE expect to spend on the Electric Program Investment Charge 3.45, "Automated Fire Detection from Wildlife Alert Cameras," program through the end of the years 2023, 2024, and 2025? f) When is the earliest date that PGE expects to realize benefits from automated fire detection?</p>	<p>a) PGE set an goal of AI technology in 2021 to determine the efficacy of this new technology to assist with the detection and notification of new ignitions. In 2022 a project was launched under the Electric Program Investment Charge 3.45 which multiple pilot sites were piloted to prove out the ability of the technology to consistently monitor the feeds from the wildlife cameras installed in PGE service territory and provide alerts to both PGE and insurance agency partners in near real-time response time to detected ignitions. During the EPIC project, PGE's team determined that AI would enable both PGE and First Responders to receive notifications of ignitions installed wildlife cameras. The decision made was to pursue AI implementation on all PGE sponsored cameras in 2023. It is reported to note that CAL FIRE, SCE, and SDCGE are also receiving AI feeds from their cameras. The ability for the over 1,000 wildlife cameras installed across the state to be continuously monitored with rapid alerting capabilities is based on a major data collection and processing infrastructure investment by PGE. This investment will enable more rapid notification of responding fire agencies, early alerts have been enabled in PGE service territory and are being tested on a limited basis. The additional investment improves across the entire state as that responding agencies will become aware of any ignitions more quickly than in the past. b) Please refer to attachment WMP-Discovery2023_DR_California0003_000-0203_A0101 which contains a summary of the testing and results when the AI detection fires were tested. There are 1 call (09/15/2023) Discovery Times. c) As of the beginning of 2023, PGE spent \$1,040,000 on the Electric Program Investment Charge 3.45, "Automated Fire Detection from Wildlife Alert Cameras," program. d) The EPIC project has been and there will be additional spend on this going forward. The cost to implement AI on the PGE sponsored cameras will be carried within the Wildlife Camera program budget. This is expected to be approximately \$5,000,000 in 2023 with incremental increases going forward. CAL FIRE, SCE, and SDCGE will also be supporting AI on their sponsored cameras at the same cost per camera. e) PGE expects to receive benefits from automated fire detection as early as June 2023.</p>	<p>July Weinman 4/4/2023 4/7/2023 4/7/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	1	NA	8.3.4.2	Situational Awareness and Forecasting	Ignition Detection Systems
35	CaPA	Set WMP-00	CaPA_Set WMP-00	4	CaPA_Set WMP-00_04	<p>P-174 of PGE's WMP states, "The results of the PRRP Consequence Model are then calibrated to PGE's Enterprise Risk Model (EMM) Risk Score for PRRP." For each component in PGE's EMMAF, explain how the results of the PRRP Consequence Model are calibrated to the EMMAF. a) For each component in PGE's EMMAF, explain how the results of the PRRP Consequence Model are calibrated to the EMMAF. b) For each component in PGE's EMMAF, explain how the results of the PRRP Consequence Model are calibrated to the EMMAF.</p>	<p>PRRP's PRRP EMMAF Risk Score includes safety, reliability, and financial components. The combination of the components results in a total EMMAF Risk Score for PRRP. For Safety, PGE uses the combination of 50% PGE PRRP data and 50% US industry widespread unplanned outage data. Based on blending of the two datasets, PGE arrives at a Service Area or Fatality (SAF) / million Customer Minutes Interrupted (CMI). Details are shown in WMP-Discovery2023_DR_California0003_000-0204A0101.pdf. For Reliability, PGE uses the CMI estimates from the historical back-cast for each lookback event. Details are shown in WMP-Discovery2023_DR_California0003_000-0204B0101.pdf. For Financial, PGE uses the historical cost of exceeding PRRP events and estimates a fixed cost of exceeding a PRRP and a cost per customer through their expression. Details are shown in WMP-Discovery2023_DR_California0003_000-0204A0103.xlsx. PGE's PRRP consequence model is based off the back-cast of potential PRRP events since 2010 to the customer level. For each component, the model produces an expected number of CMI based on the PRRP frequency and duration. However, the CMI output is not directly converted to EMMAF. This is because of the non-linear scaling of the EMMAF event with increasing CMI. Details are shown in WMP-Discovery2023_DR_California0003_000-0204A0102.pdf. PGE calibrates the PRRP Consequence Model to the Enterprise EMMAF risk score by proportionally adjusting the percent distribution of each customer CMI of the total EMMAF Risk Score. Additionally, PGE includes a critical customer weighting, for example, a medical baseline customer has a weighting of 2. so the CMI associated with that customer would be equivalently double that of a regular customer. An example: The Overall EMMAF Risk Score is 100 Customer 1 (medical baseline) experiences 10 CMI Customer 2 (regular) experiences 30 CMI Customer 3 (equivalent CMI) is 10 CMI * 2 = weighting = 20 CMI Customer 2's equivalent CMI is 30 CMI * 1 = weighting = 30 CMI Customer 3's EMMAF = 100 * (20)/(20+30) = 40 EMMAF Customer 2's EMMAF = 100 * (30)/(20+30) = 60 EMMAF</p>	<p>July Weinman 4/4/2023 4/7/2023 4/7/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	3	NA	6.2.3	Risk Methodology and Assessment	Risk and Risk Components Calculation
36	CaPA	Set WMP-00	CaPA_Set WMP-00	5	CaPA_Set WMP-00_05	<p>P-161 of PGE's WMP discusses Group G, Above-Grade Hardware. In the context of PGE's WTRM, Group G has two sub-groups: PRRP Hazards, "Sub-Group 1 consists of components where the 8% cycle closely aligns with that of the structure. These include the hanger plates and bolts." a) Does the WTRM apply the same hazards and threats to all components within a grouping? Please explain your answer. b) Does PGE's grouping within the WTRM use a severity for any hazards that may be unique to a subset of hardware within a group? Please explain your answer. c) Hanger plates may be subject to wear such as "heating" that the main structure may not experience. How does PGE account for this potential difference in the cycle between hanger plates and the structure? d) Which group within the WTRM includes a crack? e) Please explain your justification for your answer to part (d).</p>	<p>a) Yes, the same hazard and threats are applied to all components within a grouping. Grouping a set of components is based on the following considerations: 1. Similar asset lifecycle. 2. Similarly to similar threats and hazards, and 3. Similar Asset Management strategy. b) As a starting point, the WTRM assumes that all components have been designed to the minimum design wind loads and are equally susceptible to the threats affecting the component group. As more data is collected on individual events, the model may be used to assess the most vulnerable components for a given hazard. For example, if hanger plate bolts that are required by minimum design wind loads have been installed on a structure, it may be determined that another component in the above grade hardware grouping has a higher probability of failure during high winds. In that case, the most vulnerable component would then represent the component grouping probability of failure. c) The WTRM incorporates the difference between hanger plates and the structure by modeling the threats and hazards that apply to each of them in different modes. For hanger plates, inspection data (in the cases any observed wear or "heating") is incorporated by decreasing the expected "strength" which increases the failure likelihood of that component. The structure itself has different and unique threats that are modeled separately from the C-hook and hanger plate. d) Cracks are included in the Above Grade Hardware group. e) Cracks are considered to be in the Above Grade Hardware group because they have the most in common with hardware in this category, several other locations on the structure, and degradation mechanisms.</p>	<p>July Weinman 4/4/2023 4/7/2023 4/7/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	0	NA	6.2.1	Risk Methodology and Assessment	Risk and Risk Components Calculation
37	CaPA	Set WMP-00	CaPA_Set WMP-00	6	CaPA_Set WMP-00_06	<p>P-193 of PGE's WMP states, "Top-risk areas are defined as the areas corresponding to those 100 or more poles that represent PGE's highest electrical infrastructure locations and that are in the top 20th percentile based on WORM (1) risk scores." a) By "top 20th percentile," does PGE mean the 80th through 100th percentile, as percentile are generally defined in other works, the highest quality of risk scores? b) In the above statement, does "top 20th percentile" refer to all WORM (1) risk scores (which encompasses most of PGE's service territory) or a subset (for example, the top 20th percentile of those WORM (1) risk scores located within RTD)? Please explain your answer. c) How many most-end-end areas are included in the "top 20th percentile" as this term is used in PGE's WMP?</p>	<p>a) Yes, by "top 20th percentile" PGE means the 80th through 100th percentile, i.e., the highest quality of risk score. b) The "top 20th percentile" refers to a subset of WORM (1) risk scores. The "top 80th" areas were identified using the following process: (1) PGE service territory was spatially divided into a grid of squares, 100 x 100 or more (2) for each pole (representing PGE overhead electrical distribution infrastructure (1,455,233 poles)) the WORM (1) was used to produce a risk score (range 0 to 100, i.e., 0-238894145) (lowest) and (3) the 20th percent of risk-scores (representing 289,046 poles) with the greatest risk scores (range 0.000242839 - 0.233894145) were designated as "top-scores." c) The number of overhead distribution circuit miles included in the "top 20th percentile" is 16,262 miles from a total of approximately 81,000 overhead distribution circuit miles.</p>	<p>July Weinman 4/4/2023 4/7/2023 4/7/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	0	NA	6.4.1.2	Risk Methodology and Assessment	Top Risk Areas Within the PRRP
38	CaPA	Set WMP-00	CaPA_Set WMP-00	7	CaPA_Set WMP-00_07	<p>P-73 of PGE's WMP states, "We created a species-specific stress index model for PGE tree health and mortality." a) How does PGE's species-specific stress index model for tree health and mortality? b) What does PGE use to inform its species-specific stress index model for tree health and mortality? c) Please describe the data inputs to the model. d) Please describe the output of the model.</p>	<p>a) A species-specific stress index model for tree health and mortality uses information related to temperature, precipitation, evapotranspiration, and other environmental trends to evaluate issues impacting tree health and mortality. b) PGE has not yet received the information from the sector needed to develop the stress index model but expects to receive it shortly. Once the information is received, PGE will perform additional analysis in order to test the feasibility of creating a species-specific model. PGE has conducted this information in April 6, 2023 WMP update. c) PGE has not yet created the model, as described in response to subpart (b). d) PGE has not yet created the model, as described in response to subpart (b).</p>	<p>July Weinman 4/4/2023 4/7/2023 4/7/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	0	NA	4.4	Overview of WMP	Risk-Informed Framework
39	CaPA	Set WMP-00	CaPA_Set WMP-00	8	CaPA_Set WMP-00_08	<p>P-129 of PGE's WMP states, "When conducting VM activities, PGE employees and contractors must adhere to PGE's Best Management Practices (BMPs) when practicable. BMPs are considered practicable when physically possible and not conflicting with other obligations or safety considerations (OO 95 Rule 35 and Public Resources Code 4292 and 4293) or emergency response activities." a) How do VM contractors determine when adherence to BMPs is not "physically possible"? b) How does PGE set up or review VM contractors to ensure they are adhering to BMPs where practicable? c) What actions does PGE take if it determines that a VM contractor has not consistently adhered to BMPs where practicable? d) Please set all instances in 2022 where PGE has determined that a VM contractor did not adhere to BMPs where practicable. e) Please set all instances in 2022 where PGE has taken action to reprimand or sanction a VM contractor for failing to adhere to BMPs where practicable.</p>	<p>The BMPs referenced on Page 129 of the WMP in TD7-1029-01-0401, Best Management Practices (BMPs) are Vegetation Management's (VM) controls to ensure compliance with environmental compliance requirements. a) PGE makes every effort to comply with the BMPs. If the risk of vegetation in relation to our assets and potential non-compliance with GO's Rule 19.35, PRC 4292 or 4293, or NERC Standard FAC-003-04 is greater than the potential environmental risk the BMPs are designed to mitigate, then the priority vegetation work takes precedence consistent with TD-7102-17, VM Priority Tag Procedure and TD-7109-09, Transmission VM Treatment Treatment and Notification Procedure, and is referenced in the following figures provided in the WMP: - Page 528 – Figure PGE-8.2.1-2: PGE VM Transmission Inspection Process - Page 529 – Figure PGE-8.2-3: PGE VM Distribution Inspection Process - Page 530 – Figure PGE-8.2-4: PGE VM Distribution Second Patrol Process - Page 531 – Figure PGE-8.2-5: PGE VM Distribution Second Patrol Process - Page 532 – Figure PGE-8.2-6: Priority 1 and Priority 2 Tree Tags Examples where PGE VM contractors might determine that adherence to BMPs is not "physically possible," and tree work would be considered infeasible: -Limited Operating Periods (LOP), either due to weather-related soil conditions or potential biological impacts (i.e., nesting birds). -High-voltage equipment that may require work in order to comply with regulatory requirements. -Safety considerations – There may be instances where the only way to safely perform tree mitigation may present conflicting environmental resources. By PGE releases contractor BMP adherence through several methods, including: - PGE's Environmental Management (EM) performs environmental field audits of projects submitted for environmental review. - Where there have been noticeable trends for a particular issue Category of BMP non-compliance, EM will occasionally perform focused field audits. - PGE's vegetation management operations inspectors and program managers perform field observations that may include compliance with applicable laws and regulations, as well as conformance to internal BMPs. - Corrective actions associated with non-compliance of BMPs may include any of the following: For BMP non-compliance that is non-compliance of an external regulatory requirement or commitment, the issue is reported in accordance with PGE's Compliance Investigations and Self-Reporting Standards (1) as applicable. Corrective Actions may include any of the following: - Contractors may be required to take additional training courses to ensure compliance and understanding of when and</p>	<p>July Weinman 4/4/2023 4/12/2023 4/12/2023</p>	<p>https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report https://www.pge.com/page/about/communities/affairs/energy-environmental/energy-environmental-report</p>	1	NA	5.4.5	Overview of the Service Territory	Environmental Compliance and Permitting

39	CaPA	Set WMP-09	CaPA_Set WMP-09	BREV	CaPA_Set WMP-09_QREV	<p>The BMPs referenced on Page 109 of the WMP in TD 10207-01-0401, Best Management Practices (BMPs) are Implementation's (IM) controls to ensure compliance with environmental compliance requirements. A POE makes every effort to comply with the BMPs. If the risk of violation in relation to our assets and potential non-compliance with CO 05 Rule 14.5.3, PCE 4202 or CO2, or NESC Standard FAC-002-04 is greater than the potential environmental risk the BMPs are designed to mitigate, then the priority vegetation work takes precedence, consistent with TD 10207-17, WMP Prioritization and TD 10207-02, Transmission VM Investment Threat and Hazard Mitigation Procedure, and referenced in the following Figures provided in the WMP:</p> <ul style="list-style-type: none"> Figure 2-8 – Figure POE&S 2.2-1. POE&S VM Transmission Interaction Process Figure 2-9 – Figure POE&S 2.2-2. POE&S VM Transmission Second Patrol Process Figure 2-10 – Figure POE&S 2.2-3. POE&S VM Process Figure 2-11 – Figure POE&S 2.2-4. POE&S VM Distribution Interaction Process Figure 2-12 – Figure POE&S 2.2-5. POE&S VM Distribution Second Patrol Process Figure 2-13 – Figure POE&S 2.2-6. Priority 1 and Priority 2 Tree Traps <p>Where POE&S VM contractors might determine that adherence to BMPs is not "physically possible", and their work would take precedence include:</p> <ul style="list-style-type: none"> Unmet O&M requirements (e.g., other due to weather-related soil conditions or potential biological impacts (i.e., habitat loss/season) – our work is required year-round in order to comply with regulatory requirements. Unmet O&M requirements (e.g., other due to weather-related soil conditions or potential biological impacts (i.e., habitat loss/season) – our work is required year-round in order to comply with regulatory requirements. Unmet O&M requirements (e.g., other due to weather-related soil conditions or potential biological impacts (i.e., habitat loss/season) – our work is required year-round in order to comply with regulatory requirements. Unmet O&M requirements (e.g., other due to weather-related soil conditions or potential biological impacts (i.e., habitat loss/season) – our work is required year-round in order to comply with regulatory requirements. <p>POE&S reserves contractor BMP adherence through several methods, including:</p> <ul style="list-style-type: none"> POE&S Environmental Management (EM) performs unannounced field audits of projects submitted for environmental review. Where there have been noticeable trends for a particular Issue Category of BMP non-conformance, EM will occasionally perform focused field audits. POE&S vegetation management operations Inspectors and program managers perform field observations that may include compliance with applicable laws and regulations, as well as conformance to internal BMPs. Corrective actions associated with non-conformances of BMPs vary depending upon the level of risk of the specific Issue. <p>For BMP non-conformances that are non-compliance of an external regulatory requirement or commitment, the issue is reported to accordance with POE&S' Compliance Investigation and Self-Reporting Standards' as applicable.</p> <p>Corrective Actions may include any of the following:</p> <ul style="list-style-type: none"> Contractors may be required to take additional training courses to ensure compliance and understanding of what and how to adhere to BMPs. Contractors may be required to take additional training courses to ensure compliance and understanding of what and how to adhere to BMPs. <p>As in the paragraph on page 209 outlined above, the term "secondary patrol" is used synonymously with the use of "Second Patrol", and both terms refer to Second Patrol. In accordance with regulatory requirements and/or POE&S VM Second Patrol Procedure (TD 10207-23), the VM Second Patrol program performs scheduled patrols approximately one month off-peak from the mid-peak on overhead primary and secondary distribution facilities. The primary patrol for secondary patrols in HTD and HFRA includes overhead and additional areas are included to appropriately address vegetation associated risks. In the paragraph on page 207, the term "Second Patrol" also refers to Second Patrol. In the paragraph on page 207, the term "Second Patrol" also refers to Second Patrol.</p>	Holly Wetman	4/4/2023	4/12/2023	4/13/2023	1	NA	5.4.5	Overview of the Service Territory	Environmental Compliance and Permitting
40	CaPA	Set WMP-09	CaPA_Set WMP-09	9	CaPA_Set WMP-09_Q9	<p>P. 526 of POE&S WMP states, "The primary target for secondary patrols is HTD and HFRA but existing and potential risk areas are included to appropriately address vegetation associated risks."</p> <p>9.297 Issues: (beginning in 2023, POE&S will use the annual review of AOCs that we committed to doing in the POE&S-2020 to identify areas subject to Second Patrol.)</p> <p>Is there a difference between "secondary patrol" and "Second Patrol" that we committed to doing in the POE&S-2020 to identify areas subject to Second Patrol?</p> <p>1) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p> <p>2) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p> <p>3) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p> <p>4) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	0	NA	8.2.2.2	Vegetation Management and Inspections	Distribution Second Patrol
41	CaPA	Set WMP-09	CaPA_Set WMP-09	10	CaPA_Set WMP-09_Q10	<p>P. 346 of POE&S WMP states, "In July 2021, POE&S launched a multi-year program to underground 10,000 distribution circuit miles in high wildfire risk areas."</p> <p>10.297 Issues: (beginning in 2023, POE&S will use the annual review of AOCs that we committed to doing in the POE&S-2020 to identify areas subject to Second Patrol.)</p> <p>Is there a difference between "secondary patrol" and "Second Patrol" that we committed to doing in the POE&S-2020 to identify areas subject to Second Patrol?</p> <p>1) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p> <p>2) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p> <p>3) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p> <p>4) In 2023, will POE&S secondary patrol cover the entire HTD? Please explain your answer.</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	2	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
42	CaPA	Set WMP-09	CaPA_Set WMP-09	11	CaPA_Set WMP-09_Q11	<p>P. 966 of POE&S WMP states, "On average, it takes 1.28 USD circuit miles to replace 1 OH mile. However, at times, this multiplier can be 2-3 times greater."</p> <p>Does POE&S target of 10,000 miles of undergrounding refer to the number of OH circuit-miles to be moved underground, or the number of underground circuit-miles to be installed?</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	0	NA	Appendix D	Areas for Continued Improvement	ACI POE&S-22-34 – Review Process of Prioritying Wildfire Mitigation
43	CaPA	Set WMP-09	CaPA_Set WMP-09	12	CaPA_Set WMP-09_Q12	<p>What is POE&S's current forecast cost per circuit-mile for undergrounding projects completed in the second half of 2022?</p> <p>3) Please provide workpapers to support your answer to part (a).</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
44	CaPA	Set WMP-09	CaPA_Set WMP-09	13	CaPA_Set WMP-09_Q13	<p>What is POE&S's forecast RSE for undergrounding completed in the second half of 2022?</p> <p>3) Please provide workpapers to support your answer to part (a).</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
45	CaPA	Set WMP-09	CaPA_Set WMP-09	14	CaPA_Set WMP-09_Q14	<p>What is POE&S's current forecast cost per circuit-mile for covered conductor projects completed in the second half of 2022?</p> <p>3) Please provide workpapers to support your answer to part (a).</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	1	NA	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening –Transmission Conductor and Distribution
46	CaPA	Set WMP-09	CaPA_Set WMP-09	15	CaPA_Set WMP-09_Q15	<p>What is POE&S's forecast RSE for covered conductor system hardening completed in the second half of 2022?</p> <p>3) Please provide workpapers to support your answer to part (a).</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	0	NA	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening –Transmission Conductor and Distribution
47	CaPA	Set WMP-09	CaPA_Set WMP-09	16	CaPA_Set WMP-09_Q16	<p>Response to data request CA/Info/POE&S-2023-0021-003, question 7: POE&S states, "The primary approach for selecting miles used two risk prioritization methodologies: (1) Top 20 percent circuit segments based on the 2022 WORN v2 and (2) the WFE-based wildfire risk model. (WFE)-based circuit segments based on the 2022 WORN v2 and considering undergrounding feasibility."</p> <p>Provide an exact table of the WFE-based circuit segments based on the 2022 WORN v2, as described above. For each circuit segment, provide the following attributes as columns:</p> <ul style="list-style-type: none"> Circuit name Circuit ID number WFE risk score WORN v2 risk score Undergrounding feasibility WFE score as defined on page 969 of POE&S WMP <p>WFE risk score</p>	Holly Wetman	4/4/2023	4/7/2023	4/7/2023	1	NA	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
48	CaPA	Set WMP-10	CaPA_Set WMP-10	1	CaPA_Set WMP-10_Q1	<p>Table 8-3 on p. 338 of POE&S WMP states that POE&S will make capable for Down Conductor Detection (DDC) 2,500 devices in 2023, 1,400 devices in 2024, and 250 devices in 2025.</p> <p>1) Please explain the reasoning for the decreasing number of devices made capable for DDC from 2023-2025.</p> <p>2) Approximately how many circuit miles in the HTD will be protected by DDC at the end of 2022?</p>	Holly Wetman	4/4/2023	4/10/2023	4/10/2023	0	NA	8.1.1.2	Grid Design, Operations, and Maintenance	Targets
49	CaPA	Set WMP-10	CaPA_Set WMP-10	2	CaPA_Set WMP-10_Q2	<p>Table 8-5 on p. 338 of POE&S WMP shows a forecast reduction in the number of EPSS events of one to two percent annually from 2022 to 2025.</p> <p>Why is POE&S forecast reduction in the number of EPSS events lower across the 2023-2025 period?</p> <p>3) Please provide any available workpapers that support POE&S forecasts regarding the number of EPSS events annually in 2023-2025.</p>	Holly Wetman	4/4/2023	4/10/2023	4/10/2023	0	NA	8.1.1.3	Grid Design, Operations, and Maintenance	Performance Metrics Identified by the Electrical Corporation
50	CaPA	Set WMP-10	CaPA_Set WMP-10	3	CaPA_Set WMP-10_Q3	<p>Does POE&S forecast a change in the average duration of EPSS events during the 2023-2025 period?</p> <p>1) If the answer to part (a) is yes, provide the expected average duration of EPSS events for 2023, 2024, and 2025.</p> <p>2) Please provide any available workpapers that support POE&S forecasts regarding the duration of EPSS events in 2023-2025.</p>	Holly Wetman	4/4/2023	4/10/2023	4/10/2023	0	NA	8.1.1.3	Grid Design, Operations, and Maintenance	Performance Metrics Identified by the Electrical Corporation

61	CAIPA	Set WMP-10	CAIPA_Set WMP-10	14	CAIPA_Set WMP-10_014	<p>Table PG&E-8.1.7.3 on p. 456 of PG&E's WMP has empty cells in the HFRS row.</p> <p>a) Please explain why the HFRS row is empty in the above table.</p> <p>b) Please provide an updated version of PG&E-8.1.7.3 with the HFRS row filled in.</p>	<p>The HFRS row in Table PG&E-8.1.7.3 was blank because PG&E was unable to segregate the HFRS tags.</p> <p>Table 1 below shows the number of open distribution work orders completed by HFTO under WMP-10 through Q4 2022 and is listed to the QOR data provided to Energy Safety on March 1, 2023.</p> <p>The numbers for March 1, 2023 QOR are different from the numbers provided in Table-8.1.3 in PG&E's March 27, 2023 WMP submission. The numbers in the March 1, 2023 QOR are correct.</p> <p>Table 1 - Open Distribution Work Orders by HFTO Tag</p> <p>HFTO Area 2021 2022 Buffer Zone 0 0 Non-HFTO 62,116 79,547 6,208 Tag 2 10,028 25,035 1,621 Tag 3 12,018 12,076 30,169 Zone 1 14 83 2 HFRS(a) 151 1,366</p>	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	0	NA	8.1.7.2	Open Work Orders	Open Work Orders - Distribution Tags
62	CAIPA	Set WMP-10	CAIPA_Set WMP-10	15	CAIPA_Set WMP-10_015	<p>In response to data request CAInfoAccess-PGE-2023WMP-05, question 3, PG&E states, "There is an inherent OC process that is part of the drone inspection, but there is no outside group that is looking at OC."</p> <p>a) Please describe the inherent OC process for drone inspections. What are the main locations of this inherent OC process?</p> <p>b) What types of problems or flaws in drone inspections can the inherent OC process identify?</p> <p>c) Please identify the five most common problems or flaws in drone inspections that the inherent OC process identified in 2022.</p> <p>d) What are the limitations of this inherent OC process?</p>	<p>a) There is a 100% review of all inspections that are part of the inspection process. The inspector completes the inspection and a spot check is performed for commonly missed items.</p> <p>b) Spot checks are performed for the commonly missed items that are potentially caused by a fire or lightning. The most common problems identified in the OC process are: C-locks, insulators, collar pins, shot insulators, and structural issues.</p> <p>c) We have not identified any limitations of the OC process at this time.</p>	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	0	NA	8.1.3	Asset Inspections	NA
63	TURN	001	TURN_001	1	TURN_001_01	<p>1) What are the limitations of this inherent OC process?</p> <p>2) How does PG&E's current process of prioritizing wildfire mitigations assign a high priority to underpinning and does not demonstrate adequate weight to risk model outputs or RSE estimates? and what additional showing that PG&E must make in this WMP to show the required progress.</p> <p>3) Does PG&E's 2023-2025 WMP or supporting documentation provide a comparison of the RSEs (either at a branch level or more aggregated level) for underpinning compared to the RSEs of alternative mitigation techniques, such as covered conductors?</p> <p>4) If so, please provide the relevant citations, identify the specific content that provides this information by page number and specific paragraph, tables or figures (i.e., not just a multi-range page citation).</p> <p>5) If so, please describe what PG&E believes those RSE comparisons demonstrate.</p> <p>6) Referring to the third bullet under "Regarded Program" on page 988 of PG&E's WMP: Does PG&E's 2023-2025 WMP explain how PG&E incorporates RSE estimates and risk model outputs that compare underpinning with alternative mitigation techniques, such as covered conductors, at a project level early in the decision-making process, to allow PG&E to adjust the scope and pace of PG&E's underpinning program as resources based on the analysis performed?</p> <p>7) If so, please provide the relevant citations, identify the specific content that provides this information by page number and specific paragraph, tables or figures (i.e., not just a multi-range page citation).</p> <p>8) Whether or not this information is provided in PG&E's 2023-2025 WMP, please state whether, and if so, how PG&E incorporates RSE estimates and risk model outputs that compare underpinning with alternative mitigation techniques, such as covered conductors, at a project level early in the decision-making process. Please provide all documents showing that this comparison of RSE estimates and risk model outputs is included in PG&E's decision-making process.</p> <p>9) Please explain whether and, if so, how PG&E's quantitative analysis takes into account the PSPS risk for a particular location when deciding whether to undertake an underpinning project or an alternative mitigation technique in that location. For example, all other things being equal, does underpinning have worse in the quantitative analysis for a location deemed to have a low PSPS risk compared to a location deemed to have high PSPS risk, and, if so, how is this difference in PSPS risk reflected in the quantitative analysis?</p> <p>10) Please provide all documents showing how PSPS risk is included in PG&E's decision-making process for whether underpinning or another mitigation technique is used for a particular location.</p> <p>11) The first paragraph on page 988 states: "For instance, if a line 11/0/100 initial miles to replace 1 OH mile."</p> <p>12) Please explain how this average was calculated, including an identification of the underpinning projects (identified by date and location) on which the calculation was based.</p> <p>13) Please provide all supporting data for this calculation.</p>	<p>a) Yes. PG&E's 2023-2025 WMP does not provide a comparison of the RSEs for underpinning compared to the RSEs of alternative mitigations. However, this information, RSEs at the branch and aggregated level for wildfire mitigations including underpinning, is provided in PG&E's 2023 Covered Risk Case - in response to Energy Division safety request ED_01.</p> <p>b) Yes. The 2023 WMP explains how PG&E performs this analysis. PG&E evaluated the outputs from its Wildfire Distribution Risk Models (WDRM) to determine the highest risk miles in its service territory. The primary approach for selecting system hardware miles used two risk prioritization methodologies: (1) the top 20 percent of circuit segments based on the 2021 WDRM v2; and (2) the Wildfire Feasibility Efficiency (WFE) ranked circuit segments based on the 2022 WDRM v2.</p> <p>c) PG&E uses the Simplified Wildfire RSE (SWRSE) or WFE in evaluating underpinning projects. The SWRSE includes the components of the RSE including wildfire risk and cost.</p> <p>d) In executing the system hardware program, PG&E first uses a scoring criterion that identifies the highest risk areas, and then selects the appropriate risk mitigation approach for that circuit which may include underpinning, remote gap installation, the removal, or overhead hardening (depending on the local circumstances). Since late 2021, PG&E has prioritized underpinning as the preferred approach to reduce the most system risk. Once a circuit is selected for underpinning, PG&E evaluates each proposed circuit segment quantitatively and qualitatively to mitigate the highest PSPS impacts.</p> <p>e) Please see Section 8.1.2.1, page 320; Overview of the Activity and Section 8.1.2.2, p. 343-343; Overview of the Activity for the requested information.</p> <p>f) PG&E does not have documentation comparing different mitigation alternatives at the project level. PG&E uses the Simplified Wildfire RSE (SWRSE) or Wildfire Feasibility Efficiency (WFE) in evaluating underpinning projects. The SWRSE includes the components of the RSE including wildfire risk and cost. PG&E uses the SWRSE to identify where it can efficiently reduce risk given the terrain feasibility at a particular location.</p> <p>g) We currently do not use the PSPS risk in our quantitative decision-making when deciding whether to undertake an underpinning project or an alternative mitigation. However, when evaluating potential underpinning locations, PG&E considers project locations that would reduce PSPS customer impacts and may adjust project scope to further reduce PSPS impacts.</p> <p>h) The original estimated conversion of overhead to underground mileage was based on subject matter expertise. The original risk rank at the overhead mile removed and replaced through underpinning. Based on a manual review of 19 projects completed in 2022, we removed approximately 12.7 overhead miles and replaced them with 16.3 underground miles. Based on the subset of data, which is generally consistent with our overall portfolio, the conversion factor from overhead to underground is 1.3.</p> <p>i) Please see Section 8.1.2.1, page 320; Overview of the Activity for the requested information.</p>	Tom Long	4/4/2023	4/7/2023	4/7/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 - Review Process of Priority Wildfire Mitigations
64	TURN	002	TURN_002	1	TURN_002_01	<p>Please provide the attachment to the response to CAInfoAccess-PGE-2023WMP-06-007, which PG&E has labeled as confidential.</p>	<p>Please see attachment "WMP-Discovery2023_DR_TURN_002-Q001A001CONF.xlsx" for the requested information.</p>	Tom Long	4/4/2023	4/7/2023	4/7/2023	1	Yes	8.2.3	Vegetation Management and Inspections	Vegetation and Fuels Management
65	TURN	002	TURN_002	2	TURN_002_02	<p>Please provide the attachment to the response to CAInfoAccess-PGE-2023WMP-06-008, which PG&E has labeled as confidential.</p>	<p>Please see attachment "WMP-Discovery2023_DR_TURN_002-Q002A001CONF.xlsx" for the requested information.</p>	Tom Long	4/4/2023	4/7/2023	4/7/2023	1	Yes	8.2.3	Vegetation Management and Inspections	Vegetation and Fuels Management
66	TURN	002	TURN_002	3	TURN_002_03	<p>Please provide the attachment to the response to CAInfoAccess-PGE-2023WMP-06-009, which PG&E has labeled as confidential.</p>	<p>The attachment to CAInfoAccess-PGE-2023WMP-06-009 was identical to the attachment provided for CAInfoAccess-PGE-2023WMP-06-008, so please refer to the attachment set with Answer 02 of the data request response.</p>	Tom Long	4/4/2023	4/7/2023	4/7/2023	0	NA	2022 WMP Section 7.9.5.2	Vegetation Management and Inspections	Enhanced Vegetation Management
67	TURN	002	TURN_002	4	TURN_002_04	<p>Please provide the 2023-2028 Underpinning Workplan referenced on page 911 of PG&E's WMP and in footnote 208, which indicates that PG&E has labeled the Workplan confidential.</p>	<p>Please see "WMP-Discovery2023_DR_TURN_002-Q004A001_CONF.xlsx" for the requested information.</p>	Tom Long	4/4/2023	4/7/2023	4/7/2023	1	Yes	Appendix D	Areas for Continued Improvement	ACI PG&E-22-18 - Progress and Update on Underpinning and Risk Prioritization
68	CPUC - SPD (Safety Policy Division)	002	CPUC - SPD (Safety Policy Division)_002	1	CPUC - SPD (Safety Policy Division)_002_01	<p>Provide Attachment 2023-03-27_PGE_2023_WMP_RD_Appends A-D ACI PG&E-20-18_A001_CONF (PG&E's 2023-2028 Underpinning Workplan).</p>	<p>The CONFIDENTIAL attachment is being provided pursuant to the confidentiality declaration [2021]01-001, Confidentiality Declaration and [2023]03-27_PGE_2023_WMP_RD_Appends A-D ACI PG&E-20-18_A001_CONF.xlsx attached.</p>	Kevin Milar	4/4/2023	4/5/2023	4/4/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-22-16 - Progress and Update on Underpinning and Risk Prioritization
69	OIEB	001	OIEB_001	1	OIEB_001_01	<p>Regarding PG&E's Tree Assessment Tool (TAT):</p> <p>1) Considering PG&E has discontinued its Enhanced Vegetation Management (EVM) program, how is PG&E using and planning to use its TAT?</p> <p>2) What inspection programs, if any, listed in Section 8.2.2 will use the TAT?</p> <p>3) If PG&E is not using its TAT, why has it discontinued its use?</p>	<p>The TAT was developed for the EVM program. The TAT will no longer be utilized as the EVM program concluded at the end of 2022. There are no current plans to utilize TAT to support other VM programs.</p> <p>In the inspection programs listed in Section 8.2.2 of the 2023-2025 WMP, we will utilize the TAT at this time. Please see the report to part (a) of this question.</p> <p>(c) The approach to tree inspections intends to follow the American National Standards Institute (ANSI) A300 tree risk assessment standard and use field conditions and infrared tree condition reports.</p> <p>(d) New recommendations were provided to PG&E in the first report of the Targeted Tree Species Study that was completed in March 2022. PG&E has considered these recommendations and has taken action where we deemed appropriate. Below are the actions taken specific to each of the new recommendations.</p> <p>Recommendation 1: Implement a risk act, harmonized with O&I procedures, for TAT to record of species level, with only specified genus allowed as aggregates. Action options presented in O&I Geographic Information Systems Data Standard, DRAFT Version 2.2 in Section 3.4.3 (Ignition Fuel Class), Page 71.</p> <p>Action Taken: An updated tree species list has been created that aggregates species at the genus level where appropriate. The updated tree species list is currently in process of being updated within One VM.</p> <p>Recommendation 2: Outage and/or ignition investigations should record accurate (date-phase GPS) positions and be assigned to an EVM circuit segment that correlates to geo-referenced and spatially correlated PG&E EDCIS digital twin vector data. Similar to PG&E's Transmission VM, where possible, associate the O&I tree with a LEAD tree segmentation ID to further improve tree locational accuracy, and future tracking.</p> <p>Action Taken: Current electronic devices are able to capture accurate GPS positions due to technological improvements.</p> <p>Recommendation 3: Track TAT abatement species compositions and compare to outage and ignition species distributions. Note potential over-abundant abatementers.</p> <p>Over time, this can serve as a programmatic KPI.</p> <p>Action Taken: Analysis for abatement species compositions compared to outage and ignition species distributions has been completed.</p> <p>Recommendation 4: Harmonize Outage and Ignition (O&I) data with TAT data parameters.</p> <p>7/8 not out of O&I data fields.</p> <p>To the best extent possible, perform a retrospective TAT analysis on future O&I trees.</p> <p>If possible, associate the O&I tree with a LEAD tree segmentation ID.</p> <p>Action Taken: We have developed an updated outage and ignition investigation form that incorporates data parameters that will allow for increased data analysis. The updated form is in process of being digital which will improve data consistency.</p> <p>Recommendation 5: Increase green tree abatement rates for trees with no obvious defects. Consider sound abatementers that add LEAD metrics for overstore distance, tall pathways to assets, tree position slope to alignment, and canopy exposure to wind.</p> <p>Action Taken: The revised weighting of observable defects was incorporated into the TAT update.</p> <p>Recommendation 6: Use EPA Level II Ecograms to aggregate Regional Species.</p> <p>Risk Rating scores. Use multiple years of data. Update annually.</p> <p>File Name: TAT_20230327_001.xlsx</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	0	NA	8.2.2	Vegetation Management and Inspections	Vegetation Management Inspections
70	OIEB	001	OIEB_001	2	OIEB_001_02	<p>Regarding PG&E's Targeted Tree Species (TTS) Study and Tree Assessment Tool (TAT) on page 784 of its 2022 WMP Update, PG&E states "The results of our Targeted Tree Species study in conjunction with improving the Tree Assessment Tool (TAT) will allow PG&E to more accurately identify and mitigate trees at elevated risk of failure, providing better visibility into risk." On page 879 of its 2023-2025 WMP, PG&E states "We have evaluated the recommendations in the Targeted Tree Species report and continue to analyze them and consider our forward actions."</p> <p>1) Since the Target Tree Species study was completed in March 31, 2023, what actions has PG&E taken and will take to implement the new recommendations? Respond specifically to each of the new recommendations.</p> <p>2) What improvements have been and will be made to the TAT in response to these recommendations and generally (i.e., not in response to these recommendations)?</p> <p>3) If PG&E is not using or planning to use its TAT, what changes/improvements to the TAT before it decided to not use it? If so, what were those changes/improvements?</p>	<p>Recommendation 1: Increase green tree abatement rates for trees with no obvious defects. Consider sound abatementers that add LEAD metrics for overstore distance, tall pathways to assets, tree position slope to alignment, and canopy exposure to wind.</p> <p>Action Taken: The revised weighting of observable defects was incorporated into the TAT update.</p> <p>Recommendation 2: Use EPA Level II Ecograms to aggregate Regional Species.</p> <p>Risk Rating scores. Use multiple years of data. Update annually.</p> <p>File Name: TAT_20230327_002.xlsx</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	0	NA	8.2.6	Vegetation Management and Inspections	High-Risk Species

71	OBIS	001	001	001	001	3	OBIS_01_03	<p>Regarding PG&E's Focused Tree Inspections pilot</p> <p>a. Describe the current status of development for the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529) and the expected timeline for implementation.</p> <p>b. Detail the criteria PG&E has and is using to develop the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529).</p> <p>c. What standards, processes, procedures, and tools are vegetation management personnel using/will use to perform tree risk assessments for this pilot?</p> <p>d. Will PG&E be using its Own VM Tool for reworking for this pilot? If not, what system will PG&E use for reworking leading for this pilot?</p> <p>e. Where is PG&E conducting its Focused Tree Inspections pilot? If PG&E has not yet begun the pilot, where will PG&E be conducting its Focused Tree Inspections pilot?</p> <p>f. How many critical risks are in the pilot area?</p> <p>g. Was the pilot area previously inspected for Enhanced Vegetation Management (EVM)?</p> <p>h. For each Critical Protection Zone (CPZ) in the pilot area provide the:</p> <ol style="list-style-type: none"> CPZ name. The Weighted Risk Score from PG&E's most recent version of its EVM Tree-Weighted Prioritization List. The Weighted Rank from PG&E's most recent version of its EVM Tree-Weighted Prioritization List. Risk Trench. <p>i. Does PG&E have a plan to continue its Focused Tree Inspections assuming the pilot is a success? If so, detail those plans, including how many critical risks PG&E plans to inspect under this program in 2023 and 2024.</p> <p>j. Provide a GIS layer of the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529). As applicable, provide the following attributes for each polygon:</p> <ol style="list-style-type: none"> Overall Utility Risk. Ignition Risk. PPSP Risk. Contact from Vegetation Likelihood of Ignition. 	<p>4) Four regional AOCs totaling 300 miles have been identified for the FTI Pilot, one in each of the following counties: Butte, Colusa, El Dorado, and Napa. Pilot operations will begin in Q2 2023.</p> <p>5) AOCs were identified through a cross-functional effort utilizing county-based regional reviews to create polygons. These polygons were developed using Public Safety Specialist circuit-based evaluations, 30-year lookback of meteorology data, PPSP Lookback Polygons, PPSP Vegetation Damage locations, vegetation covered ignition data, and vegetation covered outage data. The completed AOC polygons were further analyzed against WDRM's model. This analysis supported the prioritization of AOC polygons which were selected as regional pilots. To bring value to overall future balance and execution, the pilot must contain regional vegetation and identify only in highest risk AOC polygons would not support the significant harm/impacts of the pilot.</p> <p>6) The pilot area tree inspections pilot intends to follow the American National Standards Institute (ANSI) A-300 tree risk assessment standard per field conditions and individual tree mitigation needs. In addition, inspections will follow the ISA TRAQ Certified Arboreal and supporting documentation for tree assessments.</p> <p>7) The pilot area will use OwnVM for execution. Business requirements to import the CPZ and/or targeted critical risks in AOC polygons are under development as of 3/31/2023. We expect to finalize the data collection system for the pilot in April 2023.</p> <p>8) The FTI Pilot will consist of 300 miles within AOCs:</p> <ol style="list-style-type: none"> Butte: 100 miles Colusa: 100 miles El Dorado: 100 miles Napa: 100 miles <p>9) Yes all circuit segments in HFTD were subject to annual EVM plans as prioritized by WDRM model. FTI program areas are targeted in HFTD areas. Portions of FTI circuit segments have been subject to EVM mitigation in prior years and trees will be inspected consistent with the portions that were not previously mitigated with EVM.</p> <p>10) See attachment "WMP-Discovery2023_DR_OBIS_001-Q001_A0007" for CPZ areas and associated tranches. "i" line response is "j" for WDRM scores per AOC. Development and prioritization of Areas of Concern polygons that define the pilot areas for the FTI program used WDRM v3. WDRM v3 improved upon v2 by taking individual event driver inputs into consideration separately and allowing them to be compared for the appropriate mitigation program. This was combined with enhancements to provide more detailed views of EVM mitigation. There was no tree weighting factor applied as was applied in v2, as the different modes of vegetation failure were incorporated into the individual model outputs for the vegetation modes. WDRM v3 generated a trunk failure, branch failure, and other vegetation failure mode output.</p> <p>11. See response to 3) for WDRM v3 scores per AOCs. Development and prioritization of Areas of Concern polygons that define the pilot areas for the FTI program used WDRM v3. WDRM v3 improved upon v2 by taking individual event driver inputs into consideration separately and allowing them to be compared for the appropriate mitigation program. This was combined with enhancements to provide more detailed views of EVM mitigation. There was no tree weighting factor applied as was applied in v2, as the different modes of vegetation failure were incorporated into the individual model outputs for the vegetation modes. WDRM v3 generated a trunk failure, branch failure, and other vegetation failure mode output.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001	3	NA	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
71	OBIS	001	001	001	001	3 SUPP	OBIS_01_03_SUPP	<p>Regarding PG&E's Focused Tree Inspections pilot</p> <p>a. Describe the current status of development for the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529) and the expected timeline for implementation.</p> <p>b. Detail the criteria PG&E has and is using to develop the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529).</p> <p>c. What standards, processes, procedures, and tools are vegetation management personnel using/will use to perform tree risk assessments for this pilot?</p> <p>d. Will PG&E be using its Own VM Tool for reworking for this pilot? If not, what system will PG&E use for reworking leading for this pilot?</p> <p>e. Where is PG&E conducting its Focused Tree Inspections pilot? If PG&E has not yet begun the pilot, where will PG&E be conducting its Focused Tree Inspections pilot?</p> <p>f. How many critical risks are in the pilot area?</p> <p>g. Was the pilot area previously inspected for Enhanced Vegetation Management (EVM)?</p> <p>h. For each Critical Protection Zone (CPZ) in the pilot area provide the:</p> <ol style="list-style-type: none"> CPZ name. The Weighted Risk Score from PG&E's most recent version of its EVM Tree-Weighted Prioritization List. The Weighted Rank from PG&E's most recent version of its EVM Tree-Weighted Prioritization List. Risk Trench. <p>i. Does PG&E have a plan to continue its Focused Tree Inspections assuming the pilot is a success? If so, detail those plans, including how many critical risks PG&E plans to inspect under this program in 2023 and 2024.</p> <p>j. Provide a GIS layer of the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529). As applicable, provide the following attributes for each polygon:</p> <ol style="list-style-type: none"> Overall Utility Risk. Ignition Risk. PPSP Risk. Contact from Vegetation Likelihood of Ignition. 	<p>10/2023 development of Areas of Concern (AOC) used WDRM v3 to prioritize CPZs to inform the pilot areas selected in the four AOCs selected for the pilot area. 31 CPZs were selected. 22 of these CPZs match with WDRM v3 used in 2022 and EVM Tree-Weighted Risk Scores and Rankings are available to accurately cross-reference. 9 CPZs do not have EVM Tree-Weighted Risk Scores or Rankings. These 9 CPZs are due to circuit configuration and/or vegetation number changes that do not allow for matching with the WDRM v3 CPZ list.</p> <p>Where available EVM Tree-Weighted Risk Scores and EVM Tree-Weighted Ranks are provided in the table below:</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001	0	NA	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
71	OBIS	001	001	001	001	3 SUPP_2	OBIS_01_03_SUPP_2	<p>Regarding PG&E's Focused Tree Inspections pilot</p> <p>a. Describe the current status of development for the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529) and the expected timeline for implementation.</p> <p>b. Detail the criteria PG&E has and is using to develop the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529).</p> <p>c. What standards, processes, procedures, and tools are vegetation management personnel using/will use to perform tree risk assessments for this pilot?</p> <p>d. Will PG&E be using its Own VM Tool for reworking for this pilot? If not, what system will PG&E use for reworking leading for this pilot?</p> <p>e. Where is PG&E conducting its Focused Tree Inspections pilot? If PG&E has not yet begun the pilot, where will PG&E be conducting its Focused Tree Inspections pilot?</p> <p>f. How many critical risks are in the pilot area?</p> <p>g. Was the pilot area previously inspected for Enhanced Vegetation Management (EVM)?</p> <p>h. For each Critical Protection Zone (CPZ) in the pilot area provide the:</p> <ol style="list-style-type: none"> CPZ name. The Weighted Risk Score from PG&E's most recent version of its EVM Tree-Weighted Prioritization List. The Weighted Rank from PG&E's most recent version of its EVM Tree-Weighted Prioritization List. Risk Trench. <p>i. Does PG&E have a plan to continue its Focused Tree Inspections assuming the pilot is a success? If so, detail those plans, including how many critical risks PG&E plans to inspect under this program in 2023 and 2024.</p> <p>j. Provide a GIS layer of the pilot area, PG&E's Areas of Concern (AOC), and "yoligos where focused vegetation inspection can be evaluated to determine appropriate courses to prioritize plants" (page 529). As applicable, provide the following attributes for each polygon:</p> <ol style="list-style-type: none"> Overall Utility Risk. Ignition Risk. PPSP Risk. Contact from Vegetation Likelihood of Ignition. 	<p>0 GIS layer for each polygon with the additional attributes have been provided.</p> <p>Please see WMP-Discovery2023_DR_OBIS_001-Q001Supp001002001 or "WMP-Discovery2023_DR_OBIS_001-Q001Supp001002001".</p> <p>Specifically for Overall Utility Risk, Ignition Risk, and PPSP Risk, these are spatially segmented in terms of circuit segments or circuit protection zones. The AOC polygons do not always align with CPZ segments so circuit segments may be spatially included or completely included.</p> <p>Since PG&E does not calculate the percentage of risk within the circuit segment designations, PG&E provides potential risk scores based purely on the percentage of miles that fall within the AOC as an approximation for this data response.</p>	Colin Lang	4/5/2023	4/27/2023	4/27/2023	https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001 https://www.pge.com/page_public/customer-support/obis/001-03-001	2	NA	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
72	OBIS	001	001	001	001	4	OBIS_01_04	<p>Regarding PG&E's Tree Removal Inventory On page 538, PG&E states that it will "remove, or re-inspect trees identified in the EVM program."</p> <p>a. How does PG&E decide whether a tree should be 1) simply abated based on the existing risk assessment or 2) re-inspected/assessed prior to abatement?</p> <p>b. What standards, processes, procedures, and tools are vegetation management personnel using/will use to perform tree risk assessments for this program?</p>	<p>1) Trees in the inventory with a TAT result of "Abate" will be abated based on the existing risk assessment.</p> <p>2) All trees in the inventory with either an "AT" result or a "TAT" result other than "Abate" are to be re-assessed by a Tree Risk Assessment Qualification (TRAQ) inspector to determine if abatement is appropriate. The inspection will determine our action based on tree condition and on-site potential.</p> <p>3) The approach to tree inspections intends to follow the American National Standards Institute (ANSI) A-300 tree risk assessment standard per field conditions and individual tree mitigation needs. Inspectors re-assessing these trees will be required to possess a Tree Risk Assessment Qualification (TRAQ) through the International Society of Arboriculture (ISA), which is the same organization that certifies arborists. The result of the TRAQ assessment will be documented in the abatement issue created for the tree.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/page_public/customer-support/obis/001-04-001 https://www.pge.com/page_public/customer-support/obis/001-04-001 https://www.pge.com/page_public/customer-support/obis/001-04-001 https://www.pge.com/page_public/customer-support/obis/001-04-001	0	NA	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
73	OBIS	001	001	001	001	5	OBIS_01_05	<p>Regarding Wood Management On page 536, PG&E says that its wood management program addresses large wood generated by PG&E's VM activities including post-fire work activities and wood generated by the EVM program.</p> <p>a. How is the EVM program being managed to address the wood management program?</p> <p>b. Address large wood generated from the EVM program that has not already addressed?</p> <p>c. How is large wood addressed when generated by other VM programs, including Distribution Infrastructure/Service Work, VM for Operational Reliability, and Focused Tree Inspections?</p> <p>d. When debris and/or large wood generated from PG&E's VM activities is left on-site, what standards, procedures, processes, and procedures does PG&E use to ensure the debris and large wood are placed in a manner that does not:</p> <ol style="list-style-type: none"> Block or hinder right-of-way or access. Infringe on PSC-4201 defensible space clearance. Inhibit maintenance and drainage. Conflict with property owner's interests. Otherwise create a hazard? 	<p>1) Yes. We will uphold commitments to manage wood generated by Enhanced Vegetation Management (EVM) work for customers who requested this service.</p> <p>2) We will continue to manage wood management commitments that have been made to customers.</p> <p>3) PG&E offers wood management for our safety risk and EVM programs. For all programs, wood greater than four inches in diameter is left in a safe position on site and it is legal the property of the landowner. As safety is PG&E's primary concern, if wood poses a safety risk or environmental, cultural or access concern, crews will address the wood accordingly in coordination with the work.</p> <p>4) Please see "WMP-Discovery2023_DR_OBIS_001-Q005001001.pdf" for PG&E's Wood Management procedures.</p> <p>Our crews are directed to ensure compliance and clear of the site of the work. If wood poses an access concern, crews will address the wood accordingly in coordination with the work.</p> <p>5) Our Vegetation Management program is designed to ensure public safety and regulatory compliance. If customers have questions resulting from our work, they can reach out to our dedicated customer teams for support and resolution.</p> <p>6) If wood poses an environmental concern, crews will address the wood in accordance with PG&E's Best Management Practices implemented at the time of the work.</p> <p>7) As wood property owner's interest, we collaborate with the customer to find an optimal solution for the completion of our work on their property.</p> <p>8) At the time of all tree work, crews will either chip and spread, bag and scatter or remove wood debris that is smaller than four inches in diameter.</p> <p>Additionally, in alignment with PG&E's stand that everyone and everything is always safe, crews will address any large wood that poses a potential safety hazard at the time of tree work.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/page_public/customer-support/obis/001-05-001 https://www.pge.com/page_public/customer-support/obis/001-05-001 https://www.pge.com/page_public/customer-support/obis/001-05-001 https://www.pge.com/page_public/customer-support/obis/001-05-001	1	NA	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management
74	OBIS	001	001	001	001	6	OBIS_01_06	<p>Regarding Enhanced Clearance On page 537, PG&E says it "complies with Appendix E of GOS, then goes on to describe the recommended clearance set forth in Appendix E of GOS."</p> <p>a. In the HFTD, does PG&E obtain the recommended clearances "where practicable"?</p> <p>b. If PG&E does not describe how PG&E implements the recommended "enhanced" clearances, detail how PG&E implements the recommended clearances set forth in Appendix E of GOS?</p>	<p>1) The minimum clearance at time of work on Enhanced Vegetation Management is 12 feet as recommended in Appendix E of GOS. Routine maintenance of previously cleared EVM areas is also 12 feet. Routine maintenance of all other areas is prescribed 2-3 years of clearance.</p> <p>2) Routine maintenance directs an inspector to prescribe 2-3 years of clearance which allows the inspector to account for tree species, location, and other conditions that affect growth.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/page_public/customer-support/obis/001-06-001 https://www.pge.com/page_public/customer-support/obis/001-06-001 https://www.pge.com/page_public/customer-support/obis/001-06-001 https://www.pge.com/page_public/customer-support/obis/001-06-001	0	NA	8.2.3.3	Vegetation Management and Inspections	Clearance

75	OBIS	001	001	OBIS_001	7	OBIS_001_07	<p>Regarding Appendix B items that are currently optional or "by Request" Only Provide the following, which are outlined in the 2023-2024 wildfire mitigation plan Technical Guidelines, Appendix B: If the data is sizable (forms, tables, graphs, charts) provide it in MS Excel. If the data is too heavy, provide the information in MS Word.</p> <p>1. Detailed Model Documentation for both model and sub-model discussed in PG&E's response to Section 6.1.2 Summary of Risk Models (Technical documentation should be presented according to ASTM E 1472 – Standard Guide for Documenting Computer Software For Fire Models).</p> <p>1. Include a list of assumptions and known model limitations according to ASTM E 1996 – Standard Guide for Determining Uses and Limitations of Deterministic Fire Models.</p> <p>2. Present verification and validation documentation according to the EPRI's Guidelines for Standardizing a Fire Model for a Client Application or ASTM E 1558 – Standard Guide for Evaluating the Predicting Capability of Deterministic Fire Models.</p> <p>3. In a minimum, the documentation must include:</p> <ol style="list-style-type: none"> (1) Purpose of the model/problem identification. (2) Model version. (3) Theoretical foundation. (4) Mathematical foundation. (5) External dependencies. (6) Model validation, and (7) Sensitivity. <p>4. Model Substantiation/3</p> <p>For each model, provide documentation of the following model substantiation studies:</p> <ol style="list-style-type: none"> (1) Validation study. (2) Model verification. (3) Model validation, and (4) Model calibration. <p>5. Additional Model Supporting Risk Calculations</p> <p>For each additional model that supports the risk calculations, provide weather analysis and fuel conditions.</p> <p>6. Calculation of Risk and Risk Components Likelihood:</p> <ol style="list-style-type: none"> (1) More detailed information on: (1) Ignition Likelihood. (2) Equipment Likelihood of Ignition. (3) Contact From Vegetation Likelihood of Ignition. (4) Protection from Lightning Likelihood of Ignition. 	<p>The requested information is provided in the following four documents:</p> <ul style="list-style-type: none"> -WMP-Disclosure2023_DR_OES_001-Q020A0401.pdf -WMP-Disclosure2023_DR_OES_001-Q020A0402.pdf -WMP-Disclosure2023_DR_OES_001-Q020A0403.pdf -WMP-Disclosure2023_DR_OES_001-Q020A0404.pdf 	Colin Lang	4/5/2023	4/10/2023	4/10/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	4	NA	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
76	OBIS	001	001	OBIS_001	8	OBIS_001_08	<p>Regarding Compliance System Diagrams for All Risk Models Used Provide comprehensive system diagrams in MS Visio or PPT for all risk models.</p> <p>1. A comprehensive diagram for operational models and 2. A comprehensive diagram for planning models.</p> <p>Section 6.1.2, Summary of Risk Models, asks for a summary of risk models in table form with specific fields. Section 8.2.1, Risk and Risk Component Identification, asks for a chart that demonstrates the components of overall risk.</p> <p>This request is comprehensive of all models that work together in the Decision-Making Framework (DMF). The following diagrams should be provided:</p> <ol style="list-style-type: none"> Interaction between the models presented graphically (e.g., inputs and outputs coming in and going from models by other modeling). Organization with the use of swimlanes where applicable. Barriers and entry points. Decisions and process flows. Use of a legend and colors to classify input/output types and model-to-model interactions, and The full cycle of models working together and creating feedback for model adjustments and fine-tuning. 	<p>PG&E has provided two system diagrams within WMP-Disclosure2023_DR_OES_001-Q020A0401.pdf in response to the data request – one for operational models (table 01) and one for planning models (table 02). Each diagram depicts the interaction among different models and each input and output. The diagrams also show the decision points, process flows, feedback loops where adjustments to the models are required.</p> <p>1) Please see table 01 of WMP-Disclosure2023_DR_OES_001-Q020A0401.pdf</p> <p>2) Please see table 02 of WMP-Disclosure2023_DR_OES_001-Q020A0401.pdf. This diagram depicts PG&E's implementation decision-making framework. From identifying risk drivers to developing mitigation initiatives to address risk, adjusting program scope and developing workplans, balancing the mitigation portfolio, and executing the work.</p>	Colin Lang	4/5/2023	4/24/2023	4/24/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	1	NA	6.1.2	Risk Methodology and Assessment	Summary of Risk Models
77	OBIS	001	001	OBIS_001	9	OBIS_001_09	<p>Regarding Portfolio Level Risk Analysis and Risk Spend Efficiency</p> <p>1. Provide an example of how risks are aggregated to a portfolio, and if and how interdependencies between the risks are explicitly captured in the portfolio. Response should be provided in Excel. Also include the level of aggregation for the portfolio (i.e., asset, geographic or business unit).</p> <p>2. Provide a calculation of portfolio of risks? If so, provide an example.</p> <p>3. Are probability distributions and interdependencies used as inputs to outputs for the portfolio used in PG&E's WMP sub-models (see examples present in Appendix B)? If so, provide an example using the portfolio charts presented in PG&E's Appendix B submission. As appropriate, response should be provided in Excel.</p> <p>4. Provide an example of how risk spend efficiency (RSE) deals with interdependent risks, and mutually exclusive risks. As appropriate, response should be provided in Excel.</p> <p>5. Is RSE calculated for both average and tail? If so, provide an example. Response should be provided in Excel.</p>	<p>As based on the wildfire Distribution Risk Model, which is based on circuit segments, circuit segments are aggregated to the enterprise wildfire risk model to calculate mitigation program benefits at the portfolio level. The traces, in this case, are the main fault lines of likelihood of risk event (LRF) and consequence of risk event (CRE). Please see WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet, which is PG&E's 2023-2024 wildfire portfolio used for the CRE when we aggregated for distribution risk event LRF and CRE traces to calculate risk at a portfolio level. This level of aggregation is based on the risk at the circuit protection zone level.</p> <p>6. Tail risk capture as part of the enterprise risk assessment process and represented as probability distribution of consequences.</p> <p>7) If so, please see WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet. The inputs listed in Tab 6-Connect are the probability distributions that feed into the bowtie analysis, and its outputs are shown as WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet. The outputs are shown as WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet. The outputs are shown as WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet. The outputs are shown as WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	2	NA	7.1.4.1	Wildfire Mitigation Strategy Development	Identifying and Evaluating Mitigation
78	OBIS	001	001	OBIS_001	10	OBIS_001_10	<p>Regarding Cost-Benefit within and Overall Decision-Making Framework</p> <p>1. Are projects justified based on a multi-criteria value functional basis, what threshold or hurdle is used?</p> <p>2. How is the chance that a project exceeds the threshold computed?</p> <p>3. Are projects justified based on a multi-criteria value functional basis, what threshold or hurdle is used?</p>	<p>At this we don't have specific threshold to justify projects.</p> <p>1) While we don't calculate a specific threshold for assessing mitigations, PG&E prioritizes higher MAFF/FOF locations for mitigation projects. We also identify high FOF locations and implement projects at the higher end of the curve. The higher end of the curve represents the higher MAFF/FOF values.</p> <p>2) We don't have a specific threshold to justify projects. We don't have a specific threshold to justify projects.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	0	NA	7.1.4.2	Wildfire Mitigation Strategy Development	Mitigation Initiative Prioritization
79	OBIS	001	001	OBIS_001	11	OBIS_001_11	<p>Regarding PG&E's Response to ACI PG&E-22-10</p> <p>PG&E describes an internal study titled by California Energy Commission (CEC) project EPC-18-026 to classify and identify areas with similar climate conditions that already have weather stations, and areas with climate conditions that are not well represented by weather stations.</p> <p>4. Provide the external party study which PG&E described and used to assess the statistical station similarity.</p>	<p>The weather adaptation report was developed by a third party, PyroScience. PyroScience worked on a draft copy of the report and instructed us not to distribute the document. Therefore, we would greatly appreciate Energy Safety's understanding of how this information was distributed to this end, and we recommend that Energy Safety contact the PyroScience team directly through the contact information provided below to obtain the draft report. This was the same process we used to obtain the report for the ACI PG&E-22-10. The report is available at the following link: https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf. Please link to contacting PyroScience and the report home page are provided below: https://www.pyroscience.com/</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-10 Justification of Weather Station Network Density
80	OBIS	001	001	OBIS_001	12	OBIS_001_12	<p>Regarding PG&E's Response to ACI PG&E-22-09</p> <p>PG&E states that "83 (percent) dropped to the lower 80 percent" (p. 891). For each of these circuit segments, provide the following information via Excel document:</p> <p>1. Name/ID of CPZ</p> <p>2. VZ mileage of circuit segment</p> <p>3. Categorization in which movement each circuit segment falls under, as outlined on p. 891 (i.e., large shift in wildfire consequence value and risk, large shift in circuit segment mileage and wildfire consequence, or shift in ignition probability)</p> <p>4. VZ overall risk score</p> <p>5. VZ risk score broken out by:</p> <ol style="list-style-type: none"> Ignition probability Wildfire consequence V3 overall risk ranking (including a footnotes/written response of the total number of CPZs included in the ranking) V2 overall risk score <p>6. VZ risk score broken out by:</p> <ol style="list-style-type: none"> Ignition probability Wildfire consequence V3 overall risk ranking (including a footnotes/written response of the total number of CPZs included in the ranking) V2 overall risk score <p>7. VZ risk score broken out by:</p> <ol style="list-style-type: none"> Ignition probability Wildfire consequence V3 overall risk ranking (including a footnotes/written response of the total number of CPZs included in the ranking) V2 overall risk score <p>8. For the circuit segments that moved due to ignition probability, describe how such ignition probability changed.</p> <p>9. PG&E states that "As a result of these changes, previously approved system hardening projects have not yet related construction CPZs that are now ranked as much lower risk."</p> <p>(p. 892) Provide the following information on each of these projects via Excel document:</p> <p>1. Name/ID of CPZ</p> <p>2. Mileage of project</p> <p>3. Type of project (i.e., covered conductor, underground)</p> <p>4. VZ overall risk ranking (including a footnotes/written response of the total number of CPZs included in the ranking)</p> <p>5. VZ overall risk score</p> <p>6. V3 overall risk ranking (including a footnotes/written response of the total number of CPZs included in the ranking)</p> <p>7. V2 overall risk score</p> <p>8. Stage in which the project was at when the project was halted (design, engineering, etc.)</p>	<p>Please see attachment WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet, tab "12.4 Dropped 4 CPZs."</p> <p>1) The probability of ignition change was driven primarily by greater granularity in failure modes associated with assets in the probability calculation. Please see attachment WMP-Disclosure2023_DR_OES_001-Q020A0401 sheet, tab "12.4.1 Probability of Ignition" for specific details.</p> <p>2) As noted in the 2023-2024 WMP PR (dated April 6, 2023), ACI PG&E-22-09, p. 891, under "Project Impact", "there were no projects that were de-prioritized from the changes implemented between V2 and V3 of the models." The statement referenced on p. 892, under "Project Impact" is a quote from the IBM Quantile report highlighting the previous model changes (V1 to V2) and noting how EVM and System Hardening approached this differently due to the associated timeframe with the work.</p>	Colin Lang	4/5/2023	4/12/2023	4/12/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-09 Evaluation of Model Reprioritization and Fire Result in High-Risk Areas
81	OBIS	001	001	OBIS_001	13	OBIS_001_13	<p>Regarding PG&E's Response to ACI PG&E-23-20</p> <p>PG&E states that "Adding drones to the detailed GO 165 inspection slowed the inspection to roughly 20 to 25 miles per day, which is slower than both the stand-alone ground inspection as well as the image capture rate for both drone-only and helicopter-only (page 526).</p> <p>3. Provide the daily inspection rates for stand-alone ground inspections, drone-only image capture, and helicopter-only capture.</p>	<p>Please see below for the requested information:</p> <p>Drone-only Helicopter Inspection - Drone Stand-alone GO 165 Inspection Aerial Image Capture (Structure-to-View) 40 Miles 20-25 MPA Inspection rate is fast (structure-to-view/inspector) 40-45 40-45 MPA 40-45 40-45 MPA</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-23-20 Asset Inspection Drone Program Pilot
82	OBIS	001	001	OBIS_001	14	OBIS_001_14	<p>Regarding PG&E's Asset Management Integration</p> <p>On page 43, PG&E states that "PG&E has significantly advanced our data management practices and the quality of our asset inventory (Asset Registry) database over the last two years by applying the International Organization for Standardization (ISO) 55001 standard."</p> <p>4. Do the upgrades to PG&E's asset inventory database reduce the location of each piece of equipment (what risk is attributed) for the distribution system, and also includes the equipment's manufacturer, model ID, and when the equipment was placed into service?</p> <p>5. If yes, how is this being done?</p> <p>6. If no, explain why this is not the case?</p> <p>PG&E asks for inspection results for making decisions on whether equipment should be replaced. Does PG&E ever replace equipment (previously) based on the equipment reaching its lifecycle end, as determined by the manufacturer or industry identified?</p> <p>7. If yes, what equipment is being replaced for these reasons and why?</p> <p>8. If no, why doesn't PG&E monitor and replace equipment at the end of its lifecycle?</p> <p>9. Does PG&E have different decision-making policies when it comes to replacing equipment in the FTDs as opposed to the rest of PG&E's distribution system?</p> <p>10. Of the distribution equipment that utilities are required to report on (capacitors, conductors, connectors, fuses, poles, sensors, meters, and transformers) what equipment is being replaced by PG&E?</p> <p>11. Does PG&E track the performance of different types of equipment by manufacturer and model information?</p> <p>12. If yes, how does PG&E track this information and what decisions are made based on this data?</p> <p>13. If no, explain why a equipment performance not being tracked?</p>	<p>Please see below for the requested information:</p> <p>1) Not applicable, please see the response to subpart (1) above.</p> <p>2) The replace equipment based on condition. Lifecycle is not solely determined by manufacturer or industry information, but also depends on other factors, as explained in subpart (1) above, which includes asset replacement.</p> <p>3) No applicable, please see the response to subpart (1) above.</p> <p>4) We do not have different inspection criteria for assessing condition of assets in FTD or non-FTD areas. However, assets located within FTDs are typically inspected at a higher frequency to increase understanding on wildfire ignition risk. Results from these inspections may prompt replacement work within FTD locations. FTD equipment work may also be prioritized before non-FTD replacement work (not including emergency replacement) based on risk prioritization.</p> <p>5) We replace equipment based on condition. As such, PG&E does not have a predicted lifecycle for the general population of assets based on age and manufacturer information, as there are other factors that can influence asset life.</p> <p>6) We track performance of equipment based on manufacturer and model information.</p> <p>7) We track performance of equipment based on manufacturer and model information.</p>	Colin Lang	4/5/2023	4/10/2023	4/10/2023	<p>https://www.pge.com/page_public/common/reports-and-publications/assessments-and-reports/assessments-and-reports/wildfire-mitigation-plan/wildfire-mitigation-plan-2023-2024-04-01-001.pdf</p>	0	NA	8.1.5	Asset Management and Inspection Enterprise Systems	NA

91	CaPA	Set WMP-11	CaPA_Set WMP-11	8	CaPA_Set WMP-11_08	<p>PG&E 2023 WMP, at page 275, states that:</p> <p>"While PG&E is looking at opportunities to REFLC deployments in our distribution substations to mitigate wildfire fire and increasing contributions to REFLC with EPSB and other mitigation, implementing it would require significant and costly changes to the grid."</p> <p>PG&E states the estimated cost sheet that PG&E reached the conclusion that "implementing REFLC would require significant and costly changes to the grid."</p> <p>WMP del PG&E not foresee "significant and costly changes" earlier than the date provided in part (a) of this question.</p> <p>PG&E provide all available documentation, analysis, or studies evaluating PG&E's response to subject (a) of this question.</p> <p>PG&E provide all available documentation, analysis, or studies evaluating PG&E's response to subject (b) of this question.</p> <p>What "significant and costly changes to PG&E's grid" would REFLC require for its implementation?</p> <p>For each "change" to PG&E's grid, what is the cost estimate?</p> <p>What are the cost estimates for each "change" to the grid at the distribution level?</p> <p>What are the cost estimates for each "change" to the grid on a per-circuit-mile basis?</p>	<p>PG&E provide all available documentation, analysis, or studies evaluating PG&E's response to part (a) of this question.</p> <p>What "significant and costly changes to PG&E's grid" would REFLC require for its implementation?</p> <p>For each "change" to PG&E's grid, what is the cost estimate?</p> <p>What are the cost estimates for each "change" to the grid at the distribution level?</p> <p>What are the cost estimates for each "change" to the grid on a per-circuit-mile basis?</p>	<p>Implementing REFLC requires significant and costly changes to the grid relative to OGD and Partial Voltage Reducer (PVR) del. Estimated equipment cost of REFLC in 2023 by PG&E needed to complete the field construction of the demonstration project to determine the cost to deploy REFLC is a reduction.</p> <p>Please refer to PG&E's Test Year 2023 OGD, Appendix 21-08-01, Exhibit PG&E-17, which contains the requested information.</p> <p>PG&E reached this conclusion through experience gained from the Catalogue REFLC demonstration project. As PG&E encountered distribution equipment failures during 2022 REFLC testing, indicating further costs to integrate REFLC technology.</p> <p>The Catalogue REFLC demonstration project unveiled integration challenges of REFLC technology corresponding to greater costs:</p> <ul style="list-style-type: none">• Please see: Riley, Roger and Jan Bernardo. "JAMBA8-0-REFLC Functional Performance Report," October 14, 2022. This document can be accessed through the following link: https://www.sccwr.org/wp-content/uploads/2022/12/REFLC-Functional-Performance-Review.pdf. Please refer to page 24 of the document.• Some of the major costs of implementing this technology are identified below:<ul style="list-style-type: none">- Replacing voltage regulators in closed delta.- Installing new, matched sets of feeder breaker current transformers (CTs).- Replacing bus potential transformers (PTs).- Replacing bus potential transformers (PTs) with bus line connections.- Replacing substation service transformer with bus line connection.- Replacing bus neutral and metal neutral bus grounding reduser.- Modifications to 12 kv bus structure for new switches and redusers.- Installing Ground Fault Neutralizers.• Upgrading station battery capacity.• Upgrading feeder neutral protection and automation package to current standard.• Grounding grid improvements based on grounding study.• Replacement of auto boosters with closed delta voltage regulator banks.• Replacement of open delta voltage regulators with closed delta.• WMP-Docnoev2023_DR_CatBookocs_011-02028 Page 4- Replacement of the reclosers and controllers for sensitive earth fault detection.- Replacement transformer for primary connected customers.- Replacing three-phase fuse arrangements with FuseSavers.- Phase connection swaps for capacitor current balancing, and- Replacement of del. direct bury underground cables.	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2022/12/REFLC-Functional-Performance-Review.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
92	CaPA	Set WMP-11	CaPA_Set WMP-11	9	CaPA_Set WMP-11_09	All which substations, other than the Catalogue substation, has PG&E tested REFLC?	We have not tested REFLC at any substations other than the Catalogue substation.	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter	
93	CaPA	Set WMP-11	CaPA_Set WMP-11	10	CaPA_Set WMP-11_010	Has PG&E done any benchmarking study on REFLC with Southern California Edison (SCE)?	Yes, PG&E REFLC project engineers regularly engage with Southern California Edison to benchmark our findings and share results and learnings. Of note, SCE has lower circuit miles of existing underground cable at their REFLC demonstration site.	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter	
94	CaPA	Set WMP-11	CaPA_Set WMP-11	11	CaPA_Set WMP-11_011	Has PG&E collaborated or exchanged with SCE on REFLC? If so, please detail the relevant activities.	Yes, PG&E regularly collaborates with SCE on REFLC and sharing data and information. This includes a weekly offsite group (afternoon) and sharing technical reports.	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter	
95	CaPA	Set WMP-11	CaPA_Set WMP-11	12	CaPA_Set WMP-11_012	<p>PG&E's 2023 WMP, at page 275, states that: "Instead of making costly changes to the grid, we are moving forward with more cost-effective solutions such as OGD (Overcurrent Detection) and Partial Voltage Reducer (PVR) del. The equipment installation required for such changes, and"</p> <p>What "changes to the grid" are required for PG&E to implement the technology?</p> <p>Is OGD viable on 5-wire systems, 4-wire systems, or both?</p> <p>Does PG&E have a cost estimate for the deployment of OGD?</p> <p>If so, please provide the cost estimate.</p>	<p>Depending on the existing reduser controller, OGD may not require a physical "change to the grid" or it may require the retrofitting of an existing reduser controller.</p> <p>OGD is only a rep. compared with 5-wire systems. Implementation on 4-wire is possible but may not achieve the benefits desired due to the higher settings thresholds that would be required. As a result, we are not currently installing OGD on 4-wire systems.</p> <p>Yes, please see the response to subject (a) below.</p> <p>If so, please provide the cost estimate.</p> <p>Yes, please see the response to subject (a) below.</p> <p>Yes, please see the response to subject (a) below.</p> <p>Yes, please see the response to subject (a) below.</p>	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities	
96	CaPA	Set WMP-11	CaPA_Set WMP-11	13	CaPA_Set WMP-11_013	<p>PG&E's 2023 WMP, at page 275, states that: "Instead of making costly changes to the grid, we are moving forward with more cost-effective solutions such as OGD and Partial Voltage Reducer (PVR) del. The equipment installation required for such changes, and"</p> <p>What "changes to the grid" are required for PG&E to implement the technology?</p> <p>Is PVR viable on 5-wire systems, 4-wire systems, or both?</p> <p>Does PG&E have a cost estimate for the deployment of PVR?</p> <p>If so, please provide the cost estimate.</p>	<p>Partial Voltage Reducer (PVR) does not require a "change to the grid." The statement quoted above refers to how this makes PVR a cost-effective solution.</p> <p>Yes, PVR is viable on both 5-wire and 4-wire systems.</p> <p>Yes, as there is no cost to "deploy" PVR.</p> <p>If not applicable, please see the response to subject (a) above.</p>	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities	
97	CaPA	Set WMP-11	CaPA_Set WMP-11	14	CaPA_Set WMP-11_014	<p>Based on PG&E's evaluation of REFLC:</p> <ol style="list-style-type: none">1) Please describe the significant changes to the grid required to implement REFLC technology.2) Please provide a cost estimate for such changes.3) Describe the equipment installation required for such changes, and4) Describe the likely operational impacts resulting from the implementation of REFLC on PG&E's system.	<p>The significant changes to the grid required to implement REFLC are identified below:</p> <ul style="list-style-type: none">- Replacing voltage regulators in closed delta.- Installing new, matched sets of feeder breaker current transformers (CTs).- Replacing bus potential transformers (PTs) with bus line connections.- Replacing the bus neutral box and installing a neutral bus grounding reduser.- Modifying to 12 kv bus structure for new switches and redusers.- Installing Ground Fault Neutralizers.- Upgrading the station battery capacity.- Upgrading the feeder neutral protection and automation package to the current standard.- Grounding grid improvements based on grounding study.- Replacement of auto boosters with closed delta voltage regulator banks.- Replacement of open delta voltage regulators with closed delta.- The addition transformer for primary connected customers.- Replacing three-phase fuse arrangements with FuseSavers.- Phase connection swaps for capacitor current balancing, and- Replacement of del. direct bury underground cables. <p>The total estimate for these changes varies but is in the range of \$10,000,000 to \$20,000,000.</p> <p>Please see the response to subject (a) for the requested information.</p> <p>PG&E is currently piloting REFLC at the 101111 system through the demonstration project. One impact that has been identified at this time is that the known fault location can be a challenge for such a system.</p>	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter	
98	CaPA	Set WMP-11	CaPA_Set WMP-11	15	CaPA_Set WMP-11_015	<p>Please state the dates when PG&E finished evaluating the following:</p> <ol style="list-style-type: none">a) The significant changes to the grid required to implement REFLC technology.b) The cost estimates for such changes.c) The equipment installation required due to such changes, andd) The likely operational impacts resulting from the implementation of REFLC on PG&E's system.	<p>a) - d) We finished the evaluation of each item identified above in early 2023.</p>	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter	
99	CaPA	Set WMP-11	CaPA_Set WMP-11	16	CaPA_Set WMP-11_016	<p>Please provide all available documentation, studies, and analysis evaluating PG&E's conclusions on each of the following aspects of REFLC deployment:</p> <ol style="list-style-type: none">a) The significant changes to the grid required to implement REFLC technology.b) The cost estimates for such changes.c) The equipment installation required due to such changes, andd) The likely operational impacts resulting from the implementation of REFLC on PG&E's system.	<p>PG&E reached this conclusion through experience gained from the Catalogue REFLC demonstration project. As PG&E encountered distribution equipment failures during 2022 REFLC testing, indicating further costs to integrate REFLC technology.</p> <p>The Catalogue REFLC demonstration project unveiled integration challenges of REFLC technology corresponding to greater costs:</p> <ul style="list-style-type: none">• Please see: Riley, Roger and Jan Bernardo. "JAMBA8-0-REFLC Functional Performance Report," October 14, 2022. This document can be accessed through the following link: https://www.sccwr.org/wp-content/uploads/2022/12/REFLC-Functional-Performance-Review.pdf. Please refer to page 24 of the document for the requested information.• The significant changes to the grid required to implement REFLC technology are identified below:<ul style="list-style-type: none">- Replacing voltage regulators in closed delta.- Installing new, matched sets of feeder breaker current transformers (CTs).- Replacing bus potential transformers (PTs) with bus line connections.- Replacing the bus neutral box and installing a neutral bus grounding reduser.- Modifying to 12 kv bus structure for new switches and redusers.- Installing Ground Fault Neutralizers.- Upgrading the station battery capacity.- Upgrading the feeder neutral protection and automation package to the current standard.- Grounding grid improvements based on grounding study.- Replacement of auto boosters with closed delta voltage regulator banks.- Replacement of open delta voltage regulators with closed delta.- The addition transformer for primary connected customers.- Replacing three-phase fuse arrangements with FuseSavers.- Phase connection swaps for capacitor current balancing, and- Replacement of del. direct bury underground cables.	PuWi Lu	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter	
100	TURN	003	TURN_003	1	TURN_003_01	<p>Please provide data in PG&E's possession that indicates the following:</p> <ol style="list-style-type: none">a. The SAIDI (System Average Interruption Duration Index) for the years 2018-2022 for underground distribution facilities.b. The MAIFI (Momentary Average Interruption Frequency Index) for the years 2018-2022 for underground distribution facilities with covered conductor.c. The SAIDI (System Average Interruption Duration Index) for the years 2018-2022 for overhead distribution facilities with covered conductor.d. The MAIFI (Momentary Average Interruption Frequency Index) for the years 2018-2022 for overhead distribution facilities with covered conductor.e. The SAIDI (System Average Interruption Duration Index) for the years 2018-2022 for overhead distribution facilities without covered conductor.f. The MAIFI (Momentary Average Interruption Frequency Index) for the years 2018-2022 for overhead distribution facilities without covered conductor.	<p>Please see the attachment "WMP-Docnoev2023_DR_TURN_003-0204020101.xlsx" for the requested information. Please note that PG&E does not capture covered conductor status in our current logging reporting, so SAIDI/MIFI data for covered conductor equipment cannot be provided at this time.</p>	Tom Long	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	1	NA	NA	NA	NA	
101	TURN	003	TURN_003	2	TURN_003_02	<p>PG&E publishes an annual reliability report that provides a detailed report on the system-wide reliability performance. Please see the following attachments for the requested information:</p> <ul style="list-style-type: none">- "WMP-Docnoev2023_DR_TURN_003-0204020101.pdf"- "WMP-Docnoev2023_DR_TURN_003-0204020201.pdf"- "WMP-Docnoev2023_DR_TURN_003-0204020301.pdf"- "WMP-Docnoev2023_DR_TURN_003-0204020401.pdf"- "WMP-Docnoev2023_DR_TURN_003-0204020501.pdf" <p>Additionally, we are in the process of finalizing a study that is planned to be completed by June 30, 2023. This study will assess the potential reliability improvements at locations that have been undergrounded earlier have been buried with covered conductor. It is important to also note that the focus of our overhead system benchmarking and performance comparison to date has been primarily to show wildfire mitigation.</p>	<p>Yes, we can confirm that the targets for reduced customer impacts are available for initiatives PS&B in Table 7.3.3. Please see Table PG&E-23-351 (2023 WMP p. 87) for the breakdown of incremental outcomes for each response target.</p> <p>PG&E will attach WMP-Docnoev2023_DR_TURN_003-0204020101 for reporting data for the estimates of WMP's impact on 2023-2025 for the financial period 2018-2022.</p> <p>If for information of reduced customer events by mitigation measures, please see Table PG&E-23-351 of our 2023 WMP or attachment WMP-Docnoev2023_DR_TURN_003-0204020101. In the attachment, columns "Incremental Customer Impacts" provides the number of annual customer interruptions and column "Cumulative Customer Impacts" provides the number of annual customer interruptions and column "Cumulative Customer Impacts" provides the number of annual customer interruptions.</p> <p>If you require more information on the reliability performance, please see the response to ACI PG&E-23-35 on page 872 of our 2023 WMP. Covered conductor installation is part of the mitigation measure calculation for reduced customer events. For Customer Outcomes Effectiveness, please see the response to ACI PG&E-23-35.</p> <p>If the PS&B impact reductions are for the five-year baseline period of 2018-2022. Completion of undergrounding and Motorized Switch Operator (MSO) mitigation in each year from 2023-2025 will reduce the customer impact in the near-term but back period.</p>	Tom Long	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	5	NA	NA	NA	NA	
102	TURN	003	TURN_003	3	TURN_003_03	<p>Regarding Table 7.3.2, p. 286, the bottom row re PS&B:</p> <p>a. Please confirm that the targets for reduced customer impacts in 2023, 2024 and 2025 are cumulative, i.e., that the 33,000 figure for 2024 includes the 35,000 reduced impacts for 2023, and so on.</p> <p>b. Please provide the supporting data for the estimates of reduced PS&B impacts in 2023 (15,000 customer events, 2025 (15,000 customer events), and 2025 (15,000 customer events). Provide the data in the Excel format if possible.</p> <p>The table states that the targeted reductions are "based on Wildfire mitigation projects including but not limited to MRP, replacements and underground miles. ..." For each of 2023, 2024, and 2025, please provide a breakdown of the reduced customer events by the mitigation measure to which PG&E attributes the reduced customer events, including but not limited to covered conductor installation. Explain how PG&E determined this breakdown.</p> <p>Provide supporting data regarding reduced PS&B impacts for the years 2019 through 2022 and provide the supporting data for those figures in an Excel format if possible. In addition, for each of these years, please provide a breakdown of the reduced customer events by the mitigation measure to which PG&E attributes the reduced customer events, including but not limited to covered conductor installation. Explain how PG&E determined this breakdown.</p>	<p>Yes, we can confirm that the targets for reduced customer impacts are available for initiatives PS&B in Table 7.3.3. Please see Table PG&E-23-351 (2023 WMP p. 87) for the breakdown of incremental outcomes for each response target.</p> <p>PG&E will attach WMP-Docnoev2023_DR_TURN_003-0204020101 for reporting data for the estimates of WMP's impact on 2023-2025 for the financial period 2018-2022.</p> <p>If for information of reduced customer events by mitigation measures, please see Table PG&E-23-351 of our 2023 WMP or attachment WMP-Docnoev2023_DR_TURN_003-0204020101. In the attachment, columns "Incremental Customer Impacts" provides the number of annual customer interruptions and column "Cumulative Customer Impacts" provides the number of annual customer interruptions.</p> <p>If you require more information on the reliability performance, please see the response to ACI PG&E-23-35 on page 872 of our 2023 WMP. Covered conductor installation is part of the mitigation measure calculation for reduced customer events. For Customer Outcomes Effectiveness, please see the response to ACI PG&E-23-35.</p> <p>If the PS&B impact reductions are for the five-year baseline period of 2018-2022. Completion of undergrounding and Motorized Switch Operator (MSO) mitigation in each year from 2023-2025 will reduce the customer impact in the near-term but back period.</p>	Tom Long	4/5/2023	4/1/2023	4/1/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	1	NA	9.1.5	Public Safety Power Shutoff	Performance Metrics Identified by the Electrical Corporation	
103	CaPA	Set WMP-12	CaPA_Set WMP-12	1	CaPA_Set WMP-12_01	<p>Regarding Table 9-2 (List of Frequently De-energized Circuits) in Appendix F of PG&E's WMP, the column "Measures Taken, or Planned to be Taken, to Reduce the Need for and Impact of Future PS&P of Circuit" is blank for the following distribution circuit Entry Numbers: 1, 8, 11, 15, 17, 18, 20, 20, 30, 36, 37, 38, 39, 47, 55, 62, 63, 70, 71, 97, 105, 111, 112, 120, 122, 125, 126, 148, 151, 153, 163, 178, 179, 183.</p> <p>For each of the above Entry Numbers, please explain why "Measures Taken, or Planned to be Taken, to Reduce the Need for and Impact of Future PS&P of Circuit" are blank.</p> <p>For each of the above Entry Numbers, please state whether PG&E plans to take any measures during the 2023-2025 WMP period to reduce the need for and impact of future PS&P on that circuit.</p> <p>For each item in part (b) where PG&E does not plan to take any measures to reduce the need for an impact of future PS&P on that circuit, please state the basis for this decision.</p>	<p>We discovered an error in our 2023 WMP submission in the "Measures Taken, or Planned to be Taken, to Reduce the Need for and Impact of Future PS&P of Circuit" of the Frequently De-energized Circuits table. We will reach out to Energy Safety to provide the corrected information and amending our WMP submission prior to Energy Safety's guidelines. We expect to have an explanation of any remaining blanks.</p> <p>If not applicable, we expect to have the table revised by April 18, 2023.</p> <p>See response (a).</p> <p>See response (a).</p>	Holly Wehman	4/9/2023	4/11/2023	4/11/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits	
103	CaPA	Set WMP-12	CaPA_Set WMP-12	1	SURP	<p>Regarding Table 9-2 (List of Frequently De-energized Circuits) in Appendix F of PG&E's WMP, the column "Measures Taken, or Planned to be Taken, to Reduce the Need for and Impact of Future PS&P of Circuit" is blank for the following distribution circuit Entry Numbers: 1, 8, 11, 15, 17, 18, 20, 20, 30, 36, 37, 38, 39, 47, 55, 62, 63, 70, 71, 97, 105, 111, 112, 120, 122, 125, 126, 148, 151, 153, 163, 178, 179, 183.</p> <p>For each of the above Entry Numbers, please explain why "Measures Taken, or Planned to be Taken, to Reduce the Need for and Impact of Future PS&P of Circuit" are blank.</p> <p>For each of the above Entry Numbers, please state whether PG&E plans to take any measures during the 2023-2025 WMP period to reduce the need for and impact of future PS&P on that circuit.</p> <p>For each item in part (b) where PG&E does not plan to take any measures to reduce the need for an impact of future PS&P on that circuit, please state the basis for this decision.</p>	<p>We updated our List of Frequently De-energized Circuits based on the errors found in our review. The Entry Numbers listed above may not reflect the correct circuits that are mitigated by PS&P protocols. Please see attachment "WMP-Docnoev2023_DR_CatBookocs_012-0204150101.xlsx" for the updated List of Frequently De-Energized Circuits.</p> <p>After updating our table, eight distribution circuits have no PS&P Mitigation Measures taken or planned to be taken. These have been reviewed and either approved or disapproved. For the PS&P Mitigation Measures table, please refer to the table below for explanation "instead of a blank cell to avoid confusion."</p> <p>Once the mitigation measures identified in the Frequently De-energized Table, PG&E plans to implement or evaluate measures such as remediation of asset and vegetation tags, and potential use of temporary generation where possible that could reduce customer impact.</p> <p>See response (a).</p> <p>See response (a).</p>	Holly Wehman	4/9/2023	4/18/2023	4/18/2023	https://www.sccwr.org/wp-content/uploads/2023/03/REFLC-Test-Results-011-01.pdf	1	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits	

104	CAIPA	Set WMP-12	CAIPA_Set WMP-12_02	CAIPA_Set WMP-12_02	CAIPA_Set WMP-12_02	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: the column "Measures Taken or Planned to Be Taken to Reduce the Need for and Impact of Future PPSPs or Circuit" is blank for the following transmission circuit: Entry Numbers: 200, 227. For each of the above Entry Numbers, please explain why "Measures Taken or Planned to Be Taken to Reduce the Need for and Impact of Future PPSPs of Circuit" are blank. b) For each of the above Entry Numbers, please state whether POE plans to take any measures during the 2023-2025 WMP period to reduce the need for and impact of future PPSPs on that circuit. c) For each item in part (b) where POE does not plan to take any measures to reduce the need for an impact of future PPSPs on that circuit, please state the reason.</p>	<p>a) We discovered an error in our 2023 WMP submission in the "Measures Taken, or Planned to Be Taken, to Reduce the Need for and Impact of Future PPSPs of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide the corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining items. Please note, we expect to have the table revised by April 18, 2023.</p> <p>i) See response (a) ii) See response (a) iii) See response (a) iv) See response (a)</p>	Holly Wehman	4/6/2023	4/11/2023	4/11/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
104	CAIPA	Set WMP-12	CAIPA_Set WMP-12_02	2 SUPP	CAIPA_Set WMP-12_02 SUPP	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: the column "Measures Taken or Planned to Be Taken to Reduce the Need for and Impact of Future PPSPs or Circuit" is blank for the following transmission circuits: Entry Numbers: 100, 227. For each of the above Entry Numbers, please explain why "Measures Taken, or Planned to Be Taken, to Reduce the Need for and Impact of Future PPSPs of Circuit" are blank. b) For each of the above Entry Numbers, please state whether POE plans to take any measures during the 2023-2025 WMP period to reduce the need for and impact of future PPSPs on that circuit. c) For each item in part (b) where POE does not plan to take any measures to reduce the need for an impact of future PPSPs on that circuit, please state the reason.</p>	<p>We have updated our List of Frequently De-energized Circuits based on the errors found in our review. The entries listed above only reflect the latest circuits that are mitigated by PSPS protocols. Please see attachment "WMPDoc\WMP023_DR_CalAbacus_012-Q001Supp01A001.xlsx" for the updated List of Frequently De-energized Circuits.</p> <p>a) After updating our table, one transmission line has no PSPS Mitigation Measures taken or planned to be taken. This line has been marked as "Other" instead of "PS" because the "Other" category is more appropriate for this line. We have updated the explanation instead of a blank to avoid confusion.</p> <p>b) We have conducted a detailed review of the frequently de-energized circuits table. POE plans to implement the following alternative such as remediation of asset and vegetation tags, and potential use of temporary generation where possible that could reduce customer impact.</p>	Holly Wehman	4/6/2023	4/18/2023	4/18/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
105	CAIPA	Set WMP-12	CAIPA_Set WMP-12_03	CAIPA_Set WMP-12_03	CAIPA_Set WMP-12_03	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: distribution circuit Entry Numbers: 1, 21, 22, 23, 24, 25, 26, 27, 33, 34, 45, 46, 48, 83, 84, 98, 117, 119, 124, 127, 128, 129, 130, 131, 144, 152, 155, 158, 159, 172, 176, 177, 181, 181. a) Please explain how POE avoided migration by PSPS protocols. b) Please explain why the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2.</p>	<p>In Weidley two Temporary Generation (Distribution Microgrids and Backup Generation) to address impact of PSPS events to benefit the number of customers listed. See Section 9.2.4 on p. 751 for details for additional details.</p> <p>The number of customers that benefited from Temporary Generation for each of the circuits listed, is the maximum number of customers mitigated per transient PSPS event by Distribution Microgrids and Backup Generation. The plan is continue to allow Temporary Generation as a mitigation in any potential future PSPS events.</p> <p>Deployment of the Distribution Microgrids will vary depending on the weather footprint. For Microgrids, the customers mitigated will vary from 14 customers to 3,278 customers. See below for the 2023 list of Distribution Microgrid locations and customers mitigated:</p> <p>Pre-Configured Distribution Microgrids (9) County Pre-Staged Distribution Microgrids Customers (SPDX) Mitigated Neja Argam 45 Neja Callisto 154 Pacer Colfax 418 Pacer Frazzette 14 Lake Lucerne 1022 Bala Magilla 10 Lake Middlebrook 428 Shasta Shingletown 88</p> <p>On Demand Distribution Microgrid Sites (5) County On-Demand Distribution Microgrids Customers (SPDX) Mitigated Blanca Polack Pines 63 Lake Clearlake North 378 Cortana Arroyo 122 El Dorado Georgetown 50 Tulare Glenwood 61</p> <p>Backup Generation is offered to certain critical facilities when an outage could have a significant impact to public safety or the national critical customer facility's backup generation and/or emergency plan fails. The number of customers that benefited from Backup Generation is detailed in the following table:</p>	Holly Wehman	4/6/2023	4/11/2023	4/11/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
106	CAIPA	Set WMP-12	CAIPA_Set WMP-12_04	CAIPA_Set WMP-12_04	CAIPA_Set WMP-12_04	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: distribution circuit Entry Numbers: 1, 4, 8, 13, 14, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 35, 49, 50, 51, 52, 53, 60, 61, 64, 65, 66, 67, 69, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 91, 94, 95, 96, 100, 101, 102, 104, 105, 107, 108, 110, 114, 115, 116, 118, 124, 127, 128, 129, 130, 132, 137, 139, 140, 142, 143, 147, 149, 150, 154, 158, 159, 164, 165, 168, 170, 171, 173, 180, 181, 182, 184, 186, 188, 189, 191, 192, 193, 194, 195, 197, 199, 201, 202, 203, 204, 205, 206, 208, 210, 211, 212, 213, 215, 217, 218, 219, 221, 223, 224, 226, 228, 231, 232, 233, 240, 242, 244, 246, 248.</p> <p>a) Please explain how POE avoided migration by PSPS protocols. b) Please explain why the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2.</p>	<p>We discovered an error in our 2023 WMP submission in the "Measures Taken, or Planned to Be Taken, to Reduce the Need for and Impact of Future PPSPs of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide the corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining items. Please note, we expect to have the table revised by April 18, 2023.</p>	Holly Wehman	4/6/2023	4/11/2023	4/11/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
106	CAIPA	Set WMP-12	CAIPA_Set WMP-12_04 SUPP	4 SUPP	CAIPA_Set WMP-12_04 SUPP	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: distribution circuit Entry Numbers: 1, 4, 8, 13, 14, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 35, 49, 50, 51, 52, 53, 60, 61, 64, 65, 66, 67, 69, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 91, 94, 95, 96, 100, 101, 102, 104, 105, 107, 108, 110, 114, 115, 116, 118, 124, 127, 128, 129, 130, 132, 137, 139, 140, 142, 143, 147, 149, 150, 154, 158, 159, 164, 165, 168, 170, 171, 173, 180, 181, 182, 184, 186, 188, 189, 191, 192, 193, 194, 195, 197, 199, 201, 202, 203, 204, 205, 206, 208, 210, 211, 212, 213, 215, 217, 218, 219, 221, 223, 224, 226, 228, 231, 232, 233, 240, 242, 244, 246, 248.</p> <p>a) Please explain how POE avoided migration by PSPS protocols. b) Please explain why the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2.</p>	<p>We have updated our List of Frequently De-energized Circuits based on the errors found in our review. The entries listed above only reflect the latest circuits that are mitigated by PSPS protocols. Please see attachment "WMPDoc\WMP023_DR_CalAbacus_012-Q001Supp01A001.xlsx" for the updated List of Frequently De-energized Circuits.</p> <p>a) Please refer to Section 9.2 Protocols on PSPS beginning on p. 768 for Distribution.</p> <p>b) PG&E's current PSPS Protocols were updated pursuant to PSPS Protocols from previous years. Based on our current PSPS Protocols, our scoring improved and some of the circuits would not have been de-energized or would have fewer customers impacted than for certain past PSPS events.</p> <p>c) PG&E's Distribution customer-events would have been mitigated by current PSPS protocols from 2019-2022. The calculation is based on a comparison of historical PSPS events and the 2022 PSPS Five-Year Lookback Analysis, which applies current PSPS protocols to the weather conditions present in 2019-2022. This comparison excludes 2018 because PG&E's Historical PSPS events only occurred in the later part of 2018. The total number of mitigated customer-events is calculated as a net value. If some circuits would increase customer impacts due to PSPS protocols, the impacted customers would offset the total mitigated customer count reported here.</p> <p>"Customer-events" refers to the count of customer impacts over the Five-Year Lookback. If the same customer is impacted from PSPS for three PSPS events in the Five-Year Lookback, this is reported as "three customer-events mitigated" instead of "one unique customer mitigated."</p> <p>d) Customers referenced in part (c) benefited because they would not have been de-energized for certain past PSPS events based on the current PSPS protocols.</p> <p>Some of these customers may still be de-energized in other PSPS events in the years compared for this analysis but saw a decrease in the number of PSPS event impacts.</p> <p>e) The number of customers mitigated in each PSPS event by PSPS Protocols depends on a look back analysis, updated PSPS Protocols, and the weather conditions seen during that PSPS event. Util will make enhancements to our protocols, we are not able to calculate future customer impacts. See SA.04, SA.05, SA.06, PS.01, and PS.04 for additional details on evaluation of enhancements to PSPS protocols.</p>	Holly Wehman	4/6/2023	4/18/2023	4/18/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
107	CAIPA	Set WMP-12	CAIPA_Set WMP-12_05	CAIPA_Set WMP-12_05	CAIPA_Set WMP-12_05	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: transmission circuit Entry Numbers: 193, 195, 197, 198, 199, 201, 202, 203, 204, 205, 206, 208, 210, 211, 212, 213, 215, 217, 218, 219, 221, 223, 224, 226, 228, 231, 232, 233, 240, 242, 244, 246, 248.</p> <p>a) Please explain how POE avoided migration by PSPS protocols. b) Please explain why the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2.</p>	<p>We discovered an error in our 2023 WMP submission in the "Measures Taken, or Planned to Be Taken, to Reduce the Need for and Impact of Future PPSPs of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide the corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining items. Please note, we expect to have the table revised by April 18, 2023.</p>	Holly Wehman	4/6/2023	4/11/2023	4/11/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
107	CAIPA	Set WMP-12	CAIPA_Set WMP-12_05 SUPP	5 SUPP	CAIPA_Set WMP-12_05 SUPP	<p>Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: transmission circuit Entry Numbers: 193, 195, 197, 198, 199, 201, 202, 203, 204, 205, 206, 208, 210, 211, 212, 213, 215, 217, 218, 219, 221, 223, 224, 226, 228, 231, 232, 233, 240, 242, 244, 246, 248.</p> <p>a) Please explain how POE avoided migration by PSPS protocols. b) Please explain why the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2. Please explain why the number of customers was not as low as the number of customers listed in Table 9-2.</p>	<p>We have updated our List of Frequently De-energized Circuits based on the errors found in our review. The entries listed above only reflect the latest circuits that are mitigated by PSPS protocols. Please see attachment "WMPDoc\WMP023_DR_CalAbacus_012-Q001Supp01A001.xlsx" for the updated List of Frequently De-energized Circuits.</p> <p>a) Please refer to Section 9.2 Protocols on PSPS beginning on p. 773 for Transmission.</p> <p>b) See response (a).</p> <p>c) 34 Transmission customer-events would have been mitigated by current PSPS protocols from 2019-2022. The calculation is based on a comparison of historical PSPS events and the 2022 PSPS Five-Year Lookback Analysis, which applies current PSPS protocols to the weather conditions present in 2019-2022. This comparison excludes 2018 because PG&E's Historical PSPS events only occurred in the later part of 2018. The number of mitigated customer-events is calculated as a net value. If some circuits would have seen higher customer impacts due to PSPS protocols, the increase in impacted customers would offset the total mitigated customer count reported here.</p> <p>"Customer-events" refers to the count of customer impacts over the Five-Year Lookback. If the same customer is impacted from PSPS for three PSPS events in the Five-Year Lookback, this is reported as "three customer-events mitigated" instead of "one unique customer mitigated."</p> <p>d) See response (a). e) See response (a). f) See response (a).</p>	Holly Wehman	4/6/2023	4/18/2023	4/18/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
108	CAIPA	Set WMP-12	CAIPA_Set WMP-12_06	CAIPA_Set WMP-12_06	CAIPA_Set WMP-12_06	<p>PG&E's WMP p. 751, Section 9.1.2, states that "The table (Table 9-2) also includes the mitigation measures taken, or planned to be taken, to reduce the likelihood of PSPS on these circuits." Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP: The only planned action listed in Table 9-2 is regarding "MSD" being installed or replacement planned" (which is listed for 4 of 236 circuits). b) Please explain why none of the other types of mitigation measures listed on p. 751 are listed in Table 9-2 as planned actions for any circuits. b) Please explain why POE plans to take any mitigation measures for any of the remaining 232 circuits in Table 9-2.</p>	<p>a) We discovered an error in our 2023 WMP submission in the "Measures Taken, or Planned to Be Taken, to Reduce the Need for and Impact of Future PPSPs of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide the corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining items. Please note, we expect to have the table revised by April 18, 2023.</p> <p>Additionally, many of the mitigation types listed on p. 751 are circuit specific and we have provided the devices installed and the miles completed for those. Besides undergrounding and MSD we currently do not have a plan to install additional devices such as sectioning devices at Microgrid locations. In our update to the frequently de-energized circuit list, we will add planned undergrounding actions to the applicable circuits.</p> <p>b) See response (a).</p>	Holly Wehman	4/6/2023	4/11/2023	4/11/2023	0	NA	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
109	CAIPA	Set WMP-12	CAIPA_Set WMP-12_07	CAIPA_Set WMP-12_07	CAIPA_Set WMP-12_07	<p>Regarding ACI PG&E-22-35 (Quantify Mitigation Benefits of Reducing PSPS Scale, Scope, and Frequency on WMPs) (2/23/23): a) Please explain why the table shows customer impacts in terms of increased PSPS mitigation for only two mitigation methods (i.e., undergrounding and MSD), while other methods (e.g., overhead line replacement, sectioning devices, etc.) are not listed in the table. b) Please explain why customer impacts for only two mitigation methods (i) if the answer to part (a) is yes, please provide the results of PG&E's analysis. d) If the answer to part (a) is no, please explain why.</p>	<p>a) Table PG&E-22-35-1 shows customers mitigated and not customers impacted in the analysis, we applied the 2022 (January) and 2023 (January) weather conditions to the 2019-2022 Other mitigation methods to sectioning devices, grid hardening, and PSPS protocols were already factored into the lookback. This allows us to calculate the number of customers we will be able to mitigate with the two planned mitigation (undergrounding and MSD) we expect to complete in 2023-2025.</p> <p>b) We did not analyze additional mitigation methods such as undergrounding and MSD are the two projects currently plan to complete in the next 3 years. Other mitigation methods such as sectioning devices, grid hardening, and PSPS protocols are already factored into the lookback.</p> <p>c) See response (a). d) See response (a). e) See response (a).</p>	Holly Wehman	4/6/2023	4/11/2023	4/11/2023	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-35 - Quantify Mitigation Benefits of Reducing PSPS Scale, Scope, and Frequency

110	CaPA	Set WMP-12	CaPA_Set WMP-12	8	CaPA_Set WMP-12_08	<p>In We consider if alternatives, such as additional vegetation management and deadening activities, restoration, could potentially reduce the risk of catastrophic wildfire that lowering the need for de-energization. When these measures are carried out, the risk of catastrophic wildfire in areas within the PSPS scope sufficiently to protect public safety, we will move forward with PSPS.</p> <p>(b) How response to (a):</p> <p>(c) Other alternatives are considered. The CIC further evaluates the forecasted high wind speeds and wind gust speeds, which can break and blow vegetation and debris into power lines and blow sparks into dry vegetation, when it is determined these other measures are not adequate alternatives to mitigate the risk of catastrophic wildfire, and that de-energizing in the areas within the PSPS scope is necessary to protect public safety.</p> <p>Furthermore, we implemented the CIC to mitigate adverse impacts on the customers and communities in areas where power shutoffs were likely. These efforts include:</p> <ul style="list-style-type: none">• Employing greater scouting processes to significantly reduce the public safety impacts of de-energization by de-energizing smaller segments of the grid within the close confines of the fire-critical weather footprint, rather than de-energizing larger amounts of customers in more populated areas.• Considering the public safety impacts of de-energizing by reviewing the total count of impacted customers and the potential of potential de-energization upon Modified Weather Outlook (MWO) and the time to reach the weather footprint. We also evaluate the critical facilities that pose societal impact risks (e.g., hospitals, critical infrastructure).• Making adjustments to the weather footprint to de-energize only the areas that are most critical to public safety.• Using notification tools to narrow the scope and number of customers affected.• Creating opportunities for staffing, temporary generation, and alternate grid solutions, to reduce and mitigate the number of customers de-energized.• Reducing the public safety impact of de-energizing some affected communities by using back-up generation to serve critical facilities and customers.• Providing local Community Resource Centers (CRCs) to support customers in those impacted communities.• Supporting vulnerable customers through California Foundation for Independent Living Centers (CFILC) and Community Based Organizations (CBO) resource partners that offered services to customers impacted by the event. <p>Making extensive use of Advanced Notifications and outreach tools to notify impacted customers of the expected de-energization.</p> <ul style="list-style-type: none">• Using an extensive camera, weather station, and satellite weather monitoring network and on-the-ground personnel to collect real-time observations to inform and speed the identification of Weather "At-Risk" times in more precise, smaller areas, to get customers back to service faster.• Providing accessible transportation through partnerships with the California Foundation for Independent Living Center (CFILC), which facilitates the Disability Disaster Access and Resources (DDAR) Program. PG&E's partnership with the California 211 Network, and PG&E's easement agreement with four transportation organizations that provide accessible transportation in 12 counties. Furthermore, before and during a PSPS, PG&E provides known Paratransit services with 24-hour Notification, as well as any applicable Warning, Delay, Cancel, and Rescheduling Notifications during any event. This also includes a list of the 20 counties impacted by our event and the number of customers impacted. PG&E provides all of its resources on https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support.• As an alternative impacted customers including paratransit dependent customers and agencies begin receiving notifications up to 2 days ahead of the potential PSPS including a 2-day warning, 1-day work, 1-day warning and 1-day work, and 1-day work and 1-day work, and email messages that request confirmation that the customer is safe and that they are able to be reached. These messages include customized phone, text, and email messages that request confirmation that the customer has been reached. If previous alerts are not acknowledged, PG&E will continue to call the customer. This will continue hourly, or be conducted in person, until we are able to reach them.• Sample customer notifications are referenced in attachment "WMP Decision 2022_DR_California_CIFILC-DDAR/MWO" pdf.• Call Center: Changing weather and therefore changes in projected footprint, we do not specifically provide a map to paratransit agencies, but provide paratransit agencies with a list of impacted zip codes along with the ability to look up weather or state of a particular service area on the weather forecast website.	Holly Whitman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	0	NA	9.2.3	Public Safety Power Shutoff	Outline of Tactical and Strategic Decision-Making Protocol for Issuing a PSPS/PSPS (such as Issuing a PSPS/PSPS)
111	CaPA	Set WMP-12	CaPA_Set WMP-12	9	CaPA_Set WMP-12_09	<p>Regulating WMP 9. 783, Section 9.4 (Protocol for Mitigating the Public Safety Impacts of PSPS, Including Impacts on Fire Responders, Health Care Facilities, Operators of Telecommunications Infrastructure, and Other Electrical Corporation/Agencies), subsection "Transit or Paratransit Dependent Persons"</p> <p>(a) Does PG&E notify its transit or paratransit-dependent customers of what specific resources are available should a potential PSPS event?</p> <p>(b) If the answer to part (a) is yes, how far in advance of a potential PSPS does PG&E notify transit or paratransit-dependent customers?</p> <p>(c) If the answer to part (a) is yes, please provide a sample of such a notification.</p> <p>(d) Please provide an example of a map that has been provided to paratransit agencies.</p>	Holly Whitman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	1	NA	9.2.4	Public Safety Power Shutoff	Protocols for Mitigating the Public Safety Impacts of PSPS, Including Impacts on Fire Responders, Health Care Facilities, Operators of Telecommunications Infrastructure, and Water Electrical Corporation/Agencies
112	CaPA	Set WMP-12	CaPA_Set WMP-12	10	CaPA_Set WMP-12_10	<p>Regulating PSPS and its relationship with EPSS settings.</p> <p>Please describe the decision-making process for a situation in which PG&E anticipates PSPS conditions but decides to utilize EPSS settings instead.</p> <p>Please list all dates in 2021 and 2022 when PG&E anticipated PSPS conditions but utilized EPSS settings instead, if they occurred.</p> <p>Please provide a narrative of the decision-making process for any instances listed in part (b) above.</p> <p>Please describe how PG&E utilizes EPSS during a PSPS event period.</p>	Holly Whitman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	0	NA	NA	Public Safety Power Shutoff & Grid Operations and Procedures	NA
113	CaPA	Set WMP-12	CaPA_Set WMP-12	11	CaPA_Set WMP-12_11	<p>Regarding communication to customers for EPSS:</p> <p>(a) Does PG&E provide notification or other communication to customers when EPSS settings are enabled? (This may include, but is not limited to, sending text messages or emails to EPSS settings, notifications that an unplanned outage may occur, notification of expected restoration time when an EPSS outage has occurred, and other customer outreach may occur, notification of expected restoration time when an EPSS outage has occurred.)</p> <p>(b) If the answer to part (a) is yes, please describe PG&E's approach to notifying customers about EPSS settings.</p> <p>(c) At what point (i.e., number of minutes/hours) prior to enabling EPSS settings does PG&E notify customers?</p> <p>(d) At what point (i.e., number of minutes/hours) after the beginning of an outage triggered by EPSS settings does PG&E notify customers?</p> <p>(e) At what point (i.e., number of minutes/hours) after the line is restored, after an outage triggered by EPSS settings, does PG&E notify customers?</p>	Holly Whitman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	1	NA	8.1.8.11	Grid Operations and Procedures	Protective Equipment and Device Settings
114	CaPA	Set WMP-13	CaPA_Set WMP-13	1	CaPA_Set WMP-13_01	<p>Figure PG&E-7.1.4.2 on p. 259 of PG&E's WMP states Down Conductor Detection (DCD) is to be implemented on 4-wire distribution.</p> <p>Does PG&E plan to primarily implement DCD on 4-wire distribution, 3-wire distribution, or a mix?</p> <p>Please state the number of overhead critical miles of 4-wire distribution in PG&E's WFD.</p> <p>Please state the number of overhead critical miles of 3-wire distribution in PG&E's WFD.</p>	Holly Whitman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	0	NA	8.1.2.10.1	Grid Design and System Reliability	Downed Conductor Detection Devices
115	CaPA	Set WMP-13	CaPA_Set WMP-13	2	CaPA_Set WMP-13_02	<p>(a) Distribution Fault Anticipation (DFA) is designed to detect conditions that generate current and voltage anomalies including series arcing issues (arcing, switches) and short circuit faults (line sag, vegetation contact, wire down). It can also detect faults caused by broken conductors.</p> <p>(b) Early Fault Detection (EFD) is designed to detect conditions that generate accumulation of Radio Frequency (RF) signals that are caused by partial discharge from equipment components including broken conductors, falling poles, broken/damaged/contaminated insulators, cross vegetation, and falling wires in service transformers.</p> <p>(c) DFA is capable of detecting issues in which events are short and of low repeat occurrence, which are not detected by EFD. DFA, unlike EFD, can also detect issues that are more evident in power quality data (current, voltage, power factor, and harmonics).</p> <p>(d) EFD is capable of detecting issues in which events are very acute and early within the fault mode that are not detected by DFA. Examples of these issues include broken conductor strands, falling insulators, vegetation near conductors, and transformer issues.</p> <p>(e) EFD is capable of identifying issues in a circuit. It can locate issues when used in combination with faulted circuit impedance modes and line sensors. SmartMeters in the future will be able to improve location accuracy. DFA is used to accurately classify the type of issue and the other tool (circuit impedance modes, the sensors and SmartMeters) helps reduce the issue area so that field investigations can be targeted to a small area.</p> <p>(f) DFA is capable of locating issues with high accuracy, to within a span of multiple and large topology sections directly covered by EFD (both sensors on both ends of segment).</p> <p>(g) As of Dec 31, 2022, PG&E has 74 DFA devices deployed and is currently in the phase of Operational Development (pre-production). As a result of this work, the DFA system has been used to identify four arcing connections in non-rerouted equipment and detect one fault-related conductor case. Other use cases have not been fully developed. PG&E has EFD designed on four circuits as of Dec 31, 2022, and the technology is still in the pilot phase. As a result of this work, PG&E has been able to detect 11 damaged conductors (flayed or frayed), two arcing buses, and one broken insulator.</p>	Holly Whitman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	0	NA	8.3.1.1	Situational Awareness and Forecasting	Existing Systems, Technologies, and Procedures
116	CaPA	Set WMP-13	CaPA_Set WMP-13	3	CaPA_Set WMP-13_03	<p>(a) Constraints Management Organization (CMO) was created to act as the responsible group for developing and managing processes for constraints resolution. Following the initial lessons learned from the Enhanced Vegetation Management (EVM) program, this team will be formulating processes and procedures concerning how the various types of constraints that occur within the Vegetation Management (VM) department should be managed.</p> <p>(b) In previous years, the Constraints Management Team (CMT) worked within the EVM program to improve our approach to addressing constraints. This team focused on coordinating efforts with PG&E teams to work with governments, agencies, and landowners to address permitting or access constraints that temporarily prevent or delayed work from being performed. The CMT was able to gather additional information regarding constraints, resolve issues, and work with other internal teams to resolve permitting or property access issues. As a result, by the end of 2021 the CMT had successfully resolved approximately 300 miles of constrained work for the EVM program.</p> <p>(c) The EVM program in 2022, 753 miles of constrained work were resolved, which represents an increase from the prior year.</p> <p>(d) The CMT is in the process of updating its customer constraints by reviewing and updating procedures. In addition to the updates, the CMT is also working with other customer focused groups within PG&E to ensure consistency in the handling of constraints. The CMT is also working with other customer focused groups within PG&E to ensure consistency in the handling of constraints. Beyond these tasks, we are working to streamline our processes in an effort to reduce the timeline from work order creation to work order completion.</p> <p>(e) The CMT is working as a point of contact between our VM Operations teams and our Environmental team to better track our environmentally sensitive work and ensure that review and release of work is occurring according to plan. The CMT is also evaluating the benefits of performing reviews of our environmental databases before they are sent to PG&E. Environmental team to ensure all needed information is accurate and complete in an effort to streamline the process.</p> <p>(f) The CMT has created a central email inbox where environmental-type constraints can be submitted to the CMT for review. This work can be reviewed to see if existing environmental permits would cover the planned work or if additional permits would be needed. The CMT can also assist in submitting for the site-specific review and working with other stakeholders on behalf of VM operational teams as needed.</p>	Holly Whitman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/en/energy_safety/psps/psps-impacted-customer-support	0	NA	8.2.6	Vegetation Management and Inspections	Open Work Order

117	CaPA	Set WMP-13	CaPA_Set WMP-13	4	CaPA_Set WMP-13_04	<p>a) For some Vegetation Management (VM) programs within the VM department, the Constraints Management Team (CMT) will be implementing process improvements to the customer constraints process as early as Q2 of 2023.</p> <p>b) The CMT has already begun regular facility check-in meetings with our Environmental teams to discuss environmental permitting needs, discuss opportunities for process improvement, and to generally engage on upcoming work.</p> <p>c) The CMT has already begun to utilize a centralized email for submitting environmental permitting support. We expect to continue this work to best management practices and to look for process improvement opportunities with the process as it evolves.</p> <p>d) For some VM projects (e.g., 2023), we are already seeing benefits of the CMT in pilot areas as process improvement ideas are put into action and VM operational teams are engaged directly.</p> <p>e) The VM CMT will be integrating additional VM programs into our support model in the coming years and expect to exceed our objectives by December 2023.</p> <p>f) The CMT is working to better identify the various types of constraints that can affect VM's ability to complete needed work, to understand the current processes in place, to identify process improvement opportunities exist, and to better create and track metrics for these constraints.</p>	Holly Wehman	4/9/2023	4/12/2023	4/12/2023	0	NA	8.2.6	Vegetation Management and Inspections	Open Work Order
118	CaPA	Set WMP-13	CaPA_Set WMP-13	5	CaPA_Set WMP-13_05	<p>a) Based on the recorded effectiveness performance of Enhanced Powerline Safety Settings (EPSS) in 2022, we have the effectiveness across each circuit segment across High Fire Threat District (HTD) segments. The recorded effectiveness compares EPSS enabled systems to those that met EPSS criteria and is normalized by circuit-mile. The recorded effectiveness is the Forecast Rate (FR) performance. The recorded effectiveness is calculated as follows: $\text{Effectiveness} = \frac{\text{FR}_{\text{EPSS}} - \text{FR}_{\text{No EPSS}}}{\text{FR}_{\text{No EPSS}}}$. We are currently only available through 2020, therefore we used 2018-2020 as a baseline.</p> <p>b) Yes, it includes the risk reduction associated with EPSS.</p> <p>c) Yes, it includes the risk reduction associated with EPSS.</p> <p>d) Do the values in the column entitled "Jan. 1, 2025 Overall Risk" account for risk reduction associated with EPSS?</p> <p>e) Do the values in the column entitled "Jan. 1, 2025 Overall Risk" account for risk reduction associated with EPSS?</p> <p>f) Please supplement Table 7.4 with the following additional columns: 1. Forecast SAGD in 2023 if EPSS were not adopted; 2. Forecast SAGD in 2023 with EPSS.</p>	Holly Wehman	4/9/2023	4/28/2023	4/28/2023	1	NA	7.2.3	Wildfire Mitigation Strategy Development	Projected Risk Reduction on High-Risk Circuits Over 3-5 Year WMP Cycle
119	CaPA	Set WMP-13	CaPA_Set WMP-13	6	CaPA_Set WMP-13_06	<p>a) Yes, a deductive sensitivity analysis was performed to determine the possible effect of these values on the output of PGE's WFC model. Please see our responses to part b) for an explanation of our deductive analysis.</p> <p>b) For points within High Fire Risk Areas (HFRA) (or non-HFRA), there is only a single variable that determines the consequences, which is the fraction of days that a location or point spends in predicted destructive or non-destructive conditions. There are no other dependencies. Only the probability the predicted destructive fraction of days matters to the overall consequence ranking of points within the HFRA (or within the non-HFRA).</p> <p>c) Changing thresholds (i.e., fence length, size of spruce) to determine predicted destructive conditions did not substantially alter the ordering of the points by fraction of predicted destructive days, therefore rankings within HFRA are consistent. Additionally, we evaluated whether changing predicted destructive values could result in HFRA locations or points falling below the consequence ranking of locations or points within the HFRA. The Core From Mean MAWF of Historic Five values for HFRA (Two categories in table PGE-8.2.2-1 are at least 3 orders of magnitude larger than any of the Core MAWF values for the non-HFRA (Four categories). Based on our analysis, we determined that changes to consequence beyond 1 order of magnitude were not likely. Therefore, in order to change to result in significant consequence rank shifts, the category values represented in Table PGE-8.2.2-1 would need to be each 10x.</p> <p>d) N/A. (Please see the responses to subparts a) and b).</p> <p>e) N/A. (Please see the responses to subparts a) and b).</p>	Holly Wehman	4/9/2023	4/12/2023	4/12/2023	0	NA	8.2.2	Risk Methodology and Assessment	Consequence
120	CaPA	Set WMP-13	CaPA_Set WMP-13	7	CaPA_Set WMP-13_07	<p>a) There were several factors that we considered when deciding between the mitigation programs Enhanced Powerline Safety Settings (EPSS) and Enhanced Vegetation Management (EVM). Besides mitigation effectiveness and implementation and operating costs described by the Risk Spend Efficiency (RSE), we considered the factor of reduced EPSS compared to EVM, which results in faster risk reduction. The ability to expand EPSS across all circuits in the High Fire Threat Districts (HTD), High Fire Risk Area (HFRA), and specific buffer areas quickly provides more immediate and ongoing operational benefits when compared to the individual circuit of EVM projects executed each year.</p> <p>b) Our objective is to evaluate the effectiveness of minimizing catastrophic wildfires, regardless of whether mitigations are reactive or proactive. In fact, we do not use the labels "reactive" and "proactive" to categorize these mitigations. EPSS is better suited for managing overall risk because it is effective regardless of whether a wildfire could lead to an ignition, which ultimately reduces the chance of an ignition propagating into a catastrophic wildfire. The negative reliability impact to customers is captured as part of the Failure of Distribution Overhead Asset Risk. These impacts are detailed in A. 210-021, ENR6 (PGE-A), Chapter 3-2 (below) in which PGEAI showed the risk reduction of wildfire risk along with the negative impacts of reliability (MAJCE).</p>	Holly Wehman	4/9/2023	4/12/2023	4/12/2023	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Address
121	CaPA	Set WMP-13	CaPA_Set WMP-13	8	CaPA_Set WMP-13_08	<p>a) For each of the following programs, what metrics does PGEAI track to validate their impact and effectiveness at mitigating the impacts of PSPS events?</p> <p>b) Community Distribution Microgrids</p> <p>c) Community Microgrid Enablement Program</p> <p>d) Microgrid Incentive Program</p>	Holly Wehman	4/9/2023	4/12/2023	4/12/2023	0	NA	8.1.2.7	Grid Design and System Hardening	Microgrids
122	CaPA	Set WMP-13	CaPA_Set WMP-13	9	CaPA_Set WMP-13_09	<p>a) Do the following programs have any impact on customer reliability (e.g., frequency or duration of outages) in general? Please explain your response for each program.</p> <p>b) Temporary Distribution Microgrids</p> <p>c) Community Microgrid Enablement Program</p> <p>d) Microgrid Incentive Program</p>	Holly Wehman	4/9/2023	4/12/2023	4/12/2023	0	NA	8.1.2.7	Grid Design and System Hardening	Microgrids
123	CaPA	Set WMP-13	CaPA_Set WMP-13	10	CaPA_Set WMP-13_10	<p>a) The contract for this sharper decline in risk after 2026 represents the expected, continued ramp-up of undergrounding risks to be installed each year.</p> <p>b) The more rapid rate of decline in residual risk after 2026 is due to the increase of the number of underground miles expected to be installed each year that are focused on the highest risk (top 25%) circuit segments, in which the benefits of undergrounding are cumulative over time. See section 1.2.2, specifically table 8.1.2-3, which shows the current undergrounding portfolio investments addresses the top 25 percent risk-rated circuit segments so that by 2025, 95 percent of the portfolio addresses the top risk, and in 2022, almost 100 percent of the targeted annual undergrounding miles are focused on the top risk. Note that all current fiber related projects are anticipated to complete before 2022. If future wildfires, or any cause, damage or destroy distribution overhead facilities and the decision is made to rebuild underground, this would impact the project portfolio in the relevant search after each fire.</p>	Holly Wehman	4/9/2023	4/12/2023	4/12/2023	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Projected Overall Risk Reduction
124	CaPA	Set WMP-14	CaPA_Set WMP-14	1	CaPA_Set WMP-14_01	<p>a) P-347 of PGEAI's WMPFA states (regarding PGEAI's undergrounding program), "Among other benefits, the reduced base (as compared to prior projections) will decrease costs in the initial years of the program." Please list the "other benefits" referenced in the quote above.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
125	CaPA	Set WMP-14	CaPA_Set WMP-14	2	CaPA_Set WMP-14_02	<p>a) No, DTS-FAST does not have the capability to re-energize a line. Currently, DTS-FAST is monitoring only, and is not automatically sending the trip (de-energize) signal to operations until the system has more heading to ensure accuracy.</p> <p>b) DTS-FAST sensor data will report alarm conditions in real time. For example, if a negotiation has fallen into the alarm zone and remains in it, having on the conductor line, the alarm will remain. However, if the negotiation falls away from the alarm zone, then the alarm will clear. Regardless, we will use the video cameras to validate the alarm and take appropriate actions.</p> <p>c) DTS-FAST does not have the capability to re-energize a line, but it will provide data to operations to support the decision to re-energize. In addition, DTS-FAST cameras will provide remote visual awareness of the alarm location.</p> <p>d) We do not currently have enough field data to draw formal conclusions about reliability impacts, but our goal is to ensure the DTS-FAST sensors capture accurate reliability data with the base alarm.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.6.1	Grid Design and System Hardening	Distribution, Transmission, and Substation Fire Action Schemes and Technology
126	CaPA	Set WMP-14	CaPA_Set WMP-14	3	CaPA_Set WMP-14_03	<p>a) Maximum wind speed is not easily defined. Span length, tension, conductor size and wind direction all influence the maximum wind speed.</p> <p>b) General Order 55 rule 49 a Table 8 and 49.4-C3 require Supply service drops to have a minimum strength of #8 soft or annealed copper. This is 475 pounds.</p> <p>c) The service breakaway has two available weak links 500 lbs for services 75' and shorter; 750 pounds for services longer than 75 feet and up to 150 feet.</p> <p>d) The pilot location for the service breakaway has experienced three storms with winds exceeding 100 mph with no breakage of the weak links (both links are 750 lbs, due to span length).</p> <p>e) Yes, we have studied these issues.</p> <p>f) Not applicable, please see the response to subpart (b) above.</p> <p>g) The weak links did not actuate.</p> <p>h) Not applicable, please see the response to subpart (b) above.</p> <p>i) Please quantify the system risk associated with a Breakaway Connector separating. If this risk has not been defined, quantify the system risk in qualitative terms.</p> <p>j) Do Breakaway Connectors increase the likelihood of an EPSS-induced outage? Please explain your answer.</p> <p>k) If the answer to part (j) is no, please quantify the increased likelihood of an EPSS-induced outage on circuits where Breakaway Connectors are installed.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.6.2	Grid Design and System Hardening	Breakaway Connector
127	CaPA	Set WMP-14	CaPA_Set WMP-14	4	CaPA_Set WMP-14_04	<p>a) P-359 of PGEAI's WMPFA states, "Breakaway disconnect does not impact PSPS risk." Please state the basis for the above quote.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.6.2	Grid Design and System Hardening	Breakaway Connector

128	CAIPA	Set WMP-14	CAIPA_Set WMP-14	5	CAIPA_Set WMP-14_05	<p>P-363 of POSE's WMP status, "Temporary distribution microgrids are designed to support community resilience and reduce the number of customers impacted by PPS by energizing 'main street corridors' with clusters of shared services and critical facilities so that those resources can continue serving surrounding residents during PPS events."</p> <p>a) Please list the temporary distribution microgrids that POSE had available in 2020, 2021, and 2022 to mitigate the effects of a possible PPS event.</p> <p>b) For each temporary distribution microgrid listed in part (a), state the number of times the temporary distribution microgrid was used in 2020, 2021, and 2022 to mitigate the effects of a PPS event.</p> <p>c) For each instance in part (b), list the number of customers that remained energized during a PPS event.</p> <p>d) How does POSE determine what locations would warrant deployment of a temporary distribution microgrid?</p> <p>e) How does POSE determine when to deploy a temporary distribution microgrid? f) How does POSE determine when to remove a deployed temporary distribution microgrid?</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.7.2	Grid Design and System Hardening	Temporary Distribution Microgrid
129	CAIPA	Set WMP-14	CAIPA_Set WMP-14	6	CAIPA_Set WMP-14_08	<p>P-365 of POSE's WMP status, "The Redwood Coast Airport Microgrid (RCAM) was built through a California Energy Commission (CEC) grant to the Santa Energy Center and loan from United States of America to the Redwood Coast Energy Authority (a Community Choice Aggregator), in collaboration with POSE's EPC 3.11, 'Multi-Use Microgrid' project."</p> <p>a) What was the total cost of the RCAM project?</p> <p>b) Please provide disaggregated costs associated with the RCAM fulfilled in whole or in part by the California Energy Commission (CEC) grant, loans from the United States of America, and any other distinct funding sources.</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.7.3	Grid Design and System Hardening	Community Microgrid Enablement Program and Microgrid Incentive Program
130	CAIPA	Set WMP-14	CAIPA_Set WMP-14	7	CAIPA_Set WMP-14_07	<p>P-366 of POSE's WMP status, "The successful deployment of RCAM provides a model for other communities for energy resilience and energy reliability."</p> <p>a) How does POSE determine the success of the RCAM?</p> <p>b) Please provide data to support the success of the RCAM.</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	4	NA	8.1.2.7.3	Grid Design and System Hardening	Community Microgrid Enablement Program and Microgrid Incentive Program
131	CAIPA	Set WMP-14	CAIPA_Set WMP-14	8	CAIPA_Set WMP-14_08	<p>P-368 of POSE's WMP status, "For 2023, we have planned to install devices that will provide significant reliability benefits on four sites that are in the scope of 2023 to mitigate the effects of a PPS event."</p> <p>a) Please quantify the "significant reliability benefits" that will be provided from devices installed in 2023.</p> <p>b) Please provide any available whitepapers or studies to support your response to part (a).</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.8.1	Grid Design and System Hardening	Installation of System Automation Equipment - Distribution Protective Devices
132	CAIPA	Set WMP-14	CAIPA_Set WMP-14	9	CAIPA_Set WMP-14_09	<p>P-388 of POSE's WMP status that it will perform a "Substation Annual Abatement Effectiveness Study" in 2023.</p> <p>a) When does POSE expect to begin the Substation Annual Abatement Effectiveness Study?</p> <p>b) When does POSE expect to complete the Substation Annual Abatement Effectiveness Study?</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.12.2	Grid Design and System Hardening	Other Technologies and Systems - Substation Annual Abatement
133	CAIPA	Set WMP-14	CAIPA_Set WMP-14	10	CAIPA_Set WMP-14_010	<p>P-390 of POSE's WMP status, "In 2022 POE implemented revisions made to TD-2225, which incorporated lightning level practices as well as updated the only rejection criteria. Please list the adjustments that POSE made to the pole rejection criteria."</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.3.1.5	Asset Inspections	Initiate Pole Inspection
134	CAIPA	Set WMP-14	CAIPA_Set WMP-14	11	CAIPA_Set WMP-14_011	<p>P-402 of POSE's WMP status, "POSE designed full maps to extreme, severe, high, medium, or low based on the average wildfire consequence of the structures within that area."</p> <p>a) In the designation described above based on the wildfire consequence from the WORM v2 or the WORM v1, how does POSE plan to evaluate the plan map designations described above?</p> <p>b) When POSE re-evaluates the plan map designations, what steps will it take regarding a plan map that has increased in severity, such as from high to severe or severe to extreme?</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.3.2.1	Asset Inspections	Detailed Ground Inspection
135	CAIPA	Set WMP-14	CAIPA_Set WMP-14	12	CAIPA_Set WMP-14_012	<p>Table POSE-8.1.7-4 on pg. 458 of POSE's WMP shows that POSE added 41,880 distribution work orders to its HTDFHRA backlog in 2022.</p> <p>a) What measures has POSE implemented to ensure that it will be able to reduce its backlog in 2023 by closing more tags than it opened?</p> <p>b) What factors may prevent POSE from reaching its targeted backlog reduction in 2023?</p> <p>c) For each factor in part (b), what measures has POSE taken to mitigate the risk that the factor will prevent POSE from reducing its backlog in 2023?</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.7.2	Open Work Orders	Open Work Orders - Distribution Tags
136	CAIPA	Set WMP-14	CAIPA_Set WMP-14	13	CAIPA_Set WMP-14_013	<p>P-463 of POSE's WMP status, "EPSS does not cause a power outage." Given that EPSS settings can de-energize a line without prior warning, and without an apparent cause, please explain what EPSS setting that is above scope.</p> <p>Note that in 2022 POSE reported 106 of 2,375 EPSS outages as Company Initiated. In these limited instances, POSE can act as a result of a fault, but each event (e.g., a pump or heavy machinery starting up) or other utility operations where EPSS is enabled.</p> <p>In these instances the outage is reported as 'Company Initiated' and our protection engineers will review the EPSS settings, coordinate with customers, and/or coordinate with the Distribution Control Center to identify design settings that are not appropriate, correctable, or unacceptable.</p> <p>EPSS reported 1083 unknown cause outages in 2022. Note that while this indicates that a conclusive corrective action was not identified during the outage report and restoration process, it is not indicative of the number of outages that occurred as a result of planned switching or from in-rush current (e.g., a pump or heavy machinery start up) or examples of outages that do not present an ignition risk.</p> <p>In these cases, POSE is unable to determine the cause of the outage.</p> <p>These cases are reported as 'Company Initiated' and our protection engineers will review the EPSS settings, coordinate with customers, and/or coordinate with the Distribution Control Center to identify design settings that are not appropriate, correctable, or unacceptable.</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
137	CAIPA	Set WMP-14	CAIPA_Set WMP-14	14	CAIPA_Set WMP-14_014	<p>The POSE's January 2023 EPSS monthly report, POSE experienced 2,375 EPSS outages in 2022.</p> <p>a) Of the EPSS-triggered outages in 2022, how many of those outages did POSE take any corrective actions were required prior to re-energizing (i.e., there was no pre-identified contact that POSE needed to resolve upon receiving the notification of the outage)?</p> <p>b) Were there any EPSS-triggered outages in 2022 that POSE determined were triggered by events that did not occur on an ignition risk?</p> <p>If the answer to part (a) is no, how many such EPSS-triggered outages occurred in 2022?</p> <p>If the answer to part (b) is no, how many such EPSS-triggered outages occurred in 2022?</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
138	CAIPA	Set WMP-14	CAIPA_Set WMP-14	15	CAIPA_Set WMP-14_015	<p>P-465 of POSE's WMP status, "In 2022, we expanded the scope of EPSS to all HFRAs in our service territory and select adjacent EPSS buffer areas."</p> <p>a) In 2022, did POSE expand the scope of EPSS to all HFRAs and all HTFD?</p> <p>b) How did POSE expand the scope of EPSS to all HFRAs in 2022; please state the basis for this decision.</p> <p>c) In 2023, will the scope of EPSS cover all HFRAs and all HTFD?</p> <p>d) In 2023 EPSS will target 100% of HFRAs and select EPSS buffer areas, relative to 2022 WMPs. Has POSE targeted 100% of HFRAs and select EPSS buffer areas, relative to 2022 WMPs?</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
139	CAIPA	Set WMP-14	CAIPA_Set WMP-14	16	CAIPA_Set WMP-14_016	<p>CAI Associates understands that a critical segment that has been designated may still experience PPS outages. If segments upstream or downstream of the underground critical segment are subject to PPS:</p> <p>a) Is the above understanding correct? If not, please correct the above.</p> <p>b) During the 2023-2025 WMP period, does POSE intend to allow temporary microgrids or other mitigations to fully eliminate the risk of a PPS event de-energizing underground lines?</p> <p>If the answer to part (a) is no, please explain why not.</p> <p>If the answer to part (b) is no, please explain why not.</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	9.1.5	Public Safety Power Shutoff	Performance Metrics Identified by the Electrical Corporation
140	CAIPA	Set WMP-14	CAIPA_Set WMP-14	17	CAIPA_Set WMP-14_017	<p>CAI Associates understands that a critical segment that has been designated may still experience PPS outages. If segments upstream or downstream of the underground critical segment are subject to PPS:</p> <p>a) Is the above understanding correct? If not, please correct the above.</p> <p>b) During the 2023-2025 WMP period, does POSE intend to allow temporary microgrids or other mitigations to fully eliminate the risk of a PPS event de-energizing underground lines?</p> <p>If the answer to part (a) is no, please explain why not.</p> <p>If the answer to part (b) is no, please explain why not.</p>	Holly Wetman	4/11/2023	4/17/2023	4/17/2023	0	NA	9.1.5	Public Safety Power Shutoff	Performance Metrics Identified by the Electrical Corporation

141	CAIPA	Set WMP-14	CAIPA_Set WMP-14_018	18	CAIPA_Set WMP-14_018	<p>a) Has PG&E performed a study on each case to provide the likelihood that an underground segment will be subject to an EPSS-Triggered de-energizations due to upstream or downstream lightning bolts subject to the value associated with the related pole?</p> <p>b) If the answer to part (a) is yes, please provide the results of any such studies.</p> <p>c) If the answer to part (a) is no, please explain why not.</p>	<p>a) We have not performed this type of study.</p> <p>b) Not applicable. Please see the response to (b) subject (c).</p> <p>c) PG&E has not yet performed this type of study because the volume of mileage that has been placed underground is significant. The mileage estimate used to calculate this volume was based on the more meaningful, a greater number of underground lines would need to be evaluated. It is also important to note that underground systems are not subject to lightning strikes. Other underground systems are not evaluated and would require the protection of EPSS applied to the entire line segment including both LC and CH sections.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
142	CAIPA	Set WMP-14	CAIPA_Set WMP-14_019	19	CAIPA_Set WMP-14_019	<p>Please provide a list of all dip-in incidents that occurred from 2020-2022 and involved an underground electric distribution line. For each incident, please provide:</p> <p>a) Date of the incident.</p> <p>b) Whether the dip-in was caused by PG&E equipment, PG&E contractors, or a third-party.</p> <p>c) Duration of the resulting outage in days.</p> <p>d) Injuries associated with the dip-in, if any.</p> <p>e) Facilities associated with the dip-in, if any.</p> <p>f) Damage to non-PG&E structures associated with the dip-in, if any.</p>	<p>PG&E objects to the request as beyond the scope of the proceeding and unrelated to PG&E's 2023 WMP. Non-compliance and without violating these objectives, we provide the following information on dip-ins that happened in the 2020 to 2022 similar area within FTDF Tier 2 and Tier 3 areas.</p> <p>a) Please see column A of attachment "WMP-Diveover2023_DR_California_014-Q015A001.xlsx" for the requested information.</p> <p>b) Please see column C and H of attachment "WMP-Diveover2023_DR_California_014-Q015A001.xlsx" for the requested information.</p> <p>c) Please see column E of attachment "WMP-Diveover2023_DR_California_014-Q015A001.xlsx" for the requested information.</p> <p>d) Please see column F of attachment "WMP-Diveover2023_DR_California_014-Q015A001.xlsx" for the requested information. Please note that there were no injuries associated with dip-ins involving an underground electric distribution line in the 2020 to 2022 time period.</p> <p>e) Please see column G of attachment "WMP-Diveover2023_DR_California_014-Q015A001.xlsx" for the requested information. Please note that there were no facilities associated with dip-ins involving an underground electric distribution line in the 2020 to 2022 time period.</p> <p>f) Please see column I of attachment "WMP-Diveover2023_DR_California_014-Q015A001.xlsx" for the requested information. However, please note that we do not track damage to non-PG&E facilities caused by dip-ins.</p>	Holly Wehman	4/11/2023	4/28/2023	4/28/2023	1	NA	8.4.2.1	Emergency Preparedness	Overview of WMPs and PPSs Emergency Preparedness
143	CAIPA	Set WMP-14	CAIPA_Set WMP-14_020	20	CAIPA_Set WMP-14_020	<p>a) During the period from 2020-2022, did PG&E replace any distribution poles as part of its WMP activities for which PG&E had not fully recovered the original cost of the poles?</p> <p>b) If the answer to part (a) is yes, what was PG&E's practice regarding cost recovery on the unrecovered portion of the value associated with the related pole?</p> <p>c) If the answer to part (a) is no, please provide the number of such transformers that PG&E replaced.</p>	<p>a) - (c) We cannot provide the requested data. Our asset registry and work execution systems are not set up to enable this cross-referenced data consolidation and we do not track the volume of assets replaced that have not been fully recovered.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
144	CAIPA	Set WMP-14	CAIPA_Set WMP-14_021	21	CAIPA_Set WMP-14_021	<p>a) During the period from 2020-2022, did PG&E replace any distribution conductors as part of its WMP activities for which PG&E had not fully recovered the original cost of the conductors?</p> <p>b) If the answer to part (a) is yes, what was PG&E's practice regarding cost recovery on the unrecovered portion of the value associated with the related conductor?</p> <p>c) If the answer to part (a) is no, please provide the number of strand miles of such conductors that PG&E replaced.</p>	<p>a) - (c) We cannot provide the requested data. PG&E asset registry and work execution systems are not set up to enable this cross-referenced data consolidation and we do not track the volume of assets replaced that have not been fully recovered.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.2.5.2	Grid Design and System Hardening	Traditional Overhead Hardening - Distribution
145	CAIPA	Set WMP-14	CAIPA_Set WMP-14_022	22	CAIPA_Set WMP-14_022	<p>a) During the period from 2020-2022, did PG&E replace any distribution transformers as part of its WMP activities for which PG&E had not fully recovered the original cost of the transformers?</p> <p>b) If the answer to part (a) is yes, what was PG&E's practice regarding cost recovery on the unrecovered portion of the value associated with the related transformer?</p> <p>c) If the answer to part (a) is no, please provide the number of such transformers that PG&E replaced.</p>	<p>a) - (c) We cannot provide the requested data. Our asset registry and work execution systems are not set up to enable this cross-referenced data consolidation and we do not track the volume of assets replaced that have not been fully recovered.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	8.1.4.1.1	Equipment Maintenance and Repair	Transformers
146	CAIPA	Set WMP-14	CAIPA_Set WMP-14_023	23	CAIPA_Set WMP-14_023	<p>a) In 2022, how many ignitions did PG&E experience related to overhead conductor distribution line(s)?</p> <p>b) In 2022, how many ignitions did PG&E experience related to overhead distribution line(s)?</p> <p>c) In 2022, how many ignitions did PG&E experience related to underground conductor line(s)?</p>	<p>a) In 2022, PG&E observed 1 CPUC reportable ignition where the equipment type associated with the ignition was not specified.</p> <p>b) In 2022, PG&E observed 183 CPUC reportable ignitions where the equipment type associated with the ignition was not specified.</p> <p>c) In 2022, PG&E observed 1 CPUC reportable ignition where the equipment type associated with the ignition was not specified.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	Appendix D	Areas for Continued Improvement	ACI PG&E 23-08 - Addressing Increase in Risk Events
147	CAIPA	Set WMP-14	CAIPA_Set WMP-14_024	24	CAIPA_Set WMP-14_024	<p>a) In 2022, how many ignitions did PG&E experience related to overhead secondary distribution line(s)?</p> <p>b) In 2022, how many ignitions did PG&E experience related to overhead service line(s)?</p>	<p>a) In 2022, PG&E observed 44 CPUC reportable ignitions associated with overhead secondary facilities.</p> <p>b) In 2022, PG&E observed 54 CPUC reportable ignitions associated with overhead distribution service facilities.</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	0	NA	Appendix D	Areas for Continued Improvement	ACI PG&E 23-08 - Addressing Increase in Risk Events
148	CAIPA	Set WMP-14	CAIPA_Set WMP-14_025	25	CAIPA_Set WMP-14_025	<p>Per PG&E's 2023 Joint Annual Report to Shareholders states: On October 25, 2022, the Utility notified the CPUC that the Utility's procedure for wood pole replacements did not comply with CPUC requirements for replacement of poles under certain conditions and, accordingly, in some instances, the Utility failed to replace wood poles with safety factors below the required minimum 5. Please provide a copy of the October 25, 2022 letter referenced above.</p> <p>a) List the specific non-compliance referenced in the statement. The Utility's procedure for wood pole replacements did not comply with CPUC requirements for replacement of poles under certain conditions.</p> <p>b) List the specific conditions referenced in the statement. The Utility's procedure for wood pole replacements did not comply with CPUC requirements for replacement of poles under certain conditions.</p> <p>c) List the corrective actions PG&E has implemented to remediate the non-compliance described in the self-report referenced in the quote above.</p>	<p>a) Please see "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for the requested information.</p> <p>b) The specific referenced non-compliance were with General Order (GO) 95 Rule 12 and 4.3. Please see page 1 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p> <p>c) The safety factors referenced include estimating the issues identified with the "Peak" or "Wind" records where these inspections were not properly made using the General Order. Please see pages 1 through 2 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for additional details.</p> <p>d) The changes in safety procedure include revising procedure TD-22SP41 to eliminate the option to complete Pole Test & Treat (PT&T) inspections based only on visual inspections. Please see page 3 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p> <p>e) The corrective actions implemented to remediate these issues include those identified in response to Question 25, subject (c) as well as those listed on pages 3 through 4 of attachment "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	1	NA	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
149	CAIPA	Set WMP-14	CAIPA_Set WMP-14_026	26	CAIPA_Set WMP-14_026	<p>Per PG&E's 2023 Joint Annual Report to Shareholders states: On December 22, 2022, the Utility submitted an update to the CPUC explaining the Utility had identified a population of wood poles that had not received HTO or HFRA. Two new programs, Vegetation Management for Operational Mitigation (VMO) and Focused Tree Inspection, are likely to result in individual trees that warrant enhanced clearance under the current HTO or HFRA. These programs include enhanced clearance based on available outage data and trends, as well as site and tree specific conditions. While not called out as a uniform specific clearance, the program is expected to be applied to HTO or HFRA.</p> <p>a) Please describe the circumstances in which an individual tree would warrant enhanced clearance under the current HTO or HFRA.</p> <p>b) Please describe the circumstances in which an individual tree would warrant enhanced clearance under the current HTO or HFRA.</p> <p>c) Please describe how each of the two new programs "form clearances based on available outage data and trends, as well as site and tree specific conditions".</p>	<p>a) Please see "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for the requested information.</p> <p>b) The safety factors referenced include estimating the issues identified with the "Peak" or "Wind" records where these inspections were not properly made using the General Order. Please see pages 1 through 2 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for additional details.</p> <p>c) The changes in safety procedure include revising procedure TD-22SP41 to eliminate the option to complete Pole Test & Treat (PT&T) inspections based only on visual inspections. Please see page 3 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p> <p>d) The corrective actions implemented to remediate these issues include those identified in response to Question 25, subject (c) as well as those listed on pages 3 through 4 of attachment "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p>	Holly Wehman	4/11/2023	4/17/2023	4/17/2023	1	NA	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
150	CAIPA	Set WMP-15	CAIPA_Set WMP-15_01	1	CAIPA_Set WMP-15_01	<p>PG&E states in response to Question 1 (b) of CaliforniaPGE-2023WMP-08: PG&E will maintain clearances where EIM work occurred. PG&E will also be providing a minimum radial clearance of 12 feet throughout the system within HTO and HFRA. Two new programs, Vegetation Management for Operational Mitigation (VMO) and Focused Tree Inspection, are likely to result in individual trees that warrant enhanced clearance under the current HTO or HFRA. These programs include enhanced clearance based on available outage data and trends, as well as site and tree specific conditions. While not called out as a uniform specific clearance, the program is expected to be applied to HTO or HFRA.</p> <p>a) Please describe the circumstances in which an individual tree would warrant enhanced clearance under the current HTO or HFRA.</p> <p>b) Please describe the circumstances in which an individual tree would warrant enhanced clearance under the current HTO or HFRA.</p> <p>c) Please describe how each of the two new programs "form clearances based on available outage data and trends, as well as site and tree specific conditions".</p>	<p>a) Please see "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for the requested information.</p> <p>b) The safety factors referenced include estimating the issues identified with the "Peak" or "Wind" records where these inspections were not properly made using the General Order. Please see pages 1 through 2 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for additional details.</p> <p>c) The changes in safety procedure include revising procedure TD-22SP41 to eliminate the option to complete Pole Test & Treat (PT&T) inspections based only on visual inspections. Please see page 3 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p> <p>d) The corrective actions implemented to remediate these issues include those identified in response to Question 25, subject (c) as well as those listed on pages 3 through 4 of attachment "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
151	CAIPA	Set WMP-15	CAIPA_Set WMP-15_02	2	CAIPA_Set WMP-15_02	<p>PG&E states in response to Question 1 (c) of CaliforniaPGE-2023WMP-08 that its strategy for determining desired clearance distances going forward will be "Minimum of 12 feet clearance or enough clearance to mitigate potential impacts to facilities. If tree contacts or portion of foliage were to occur". Please describe PG&E's planned methodology for determining sufficient clearance to mitigate potential impacts in the event of tree failure as mentioned above.</p>	<p>a) Please see "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for the requested information.</p> <p>b) The safety factors referenced include estimating the issues identified with the "Peak" or "Wind" records where these inspections were not properly made using the General Order. Please see pages 1 through 2 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for additional details.</p> <p>c) The changes in safety procedure include revising procedure TD-22SP41 to eliminate the option to complete Pole Test & Treat (PT&T) inspections based only on visual inspections. Please see page 3 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p> <p>d) The corrective actions implemented to remediate these issues include those identified in response to Question 25, subject (c) as well as those listed on pages 3 through 4 of attachment "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
152	CAIPA	Set WMP-15	CAIPA_Set WMP-15_03	3	CAIPA_Set WMP-15_03	<p>PG&E states in its responses to Question 2 (b) of CaliforniaPGE-2023WMP-08: "Two new programs, Vegetation for Operational Mitigation (VMO) and Focus Tree Inspections (FTI) will identify new trees for the set of work identified in the Tree Inventory. Additionally, if any priority trees are discovered while completing the TRR scope of work, they would be added to work consistent with all other WMP programs". Please describe how PG&E intends to track these identified for each of these VMO and FTI.</p>	<p>a) Please see "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for the requested information.</p> <p>b) The safety factors referenced include estimating the issues identified with the "Peak" or "Wind" records where these inspections were not properly made using the General Order. Please see pages 1 through 2 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf" for additional details.</p> <p>c) The changes in safety procedure include revising procedure TD-22SP41 to eliminate the option to complete Pole Test & Treat (PT&T) inspections based only on visual inspections. Please see page 3 of "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p> <p>d) The corrective actions implemented to remediate these issues include those identified in response to Question 25, subject (c) as well as those listed on pages 3 through 4 of attachment "WMP-Diveover2023_DR_California_014-Q026A001.pdf".</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
153	CAIPA	Set WMP-15	CAIPA_Set WMP-15_04	4	CAIPA_Set WMP-15_04	<p>PG&E states in its responses to Question 1 (c)(ii) of CaliforniaPGE-2023WMP-08 that it will decide desired clearance distances "based on analysis of outage data and trends by ACC. Additionally, any tree which is within 100 feet will be within the MDR before next work completion cycle or a showing sign of imminent failure before next work completion cycle".</p> <p>a) Please describe how PG&E will determine desired clearance distances using analysis of outage data and trends by ACC.</p> <p>b) Please describe how PG&E will determine desired clearance distances using analysis of outage data and trends by ACC.</p> <p>c) Please describe how PG&E will determine desired clearance distances using analysis of outage data and trends by ACC.</p> <p>d) Please describe how PG&E will determine desired clearance distances using analysis of outage data and trends by ACC.</p>	<p>a) As a program being performed in addition to Routine VM, the objective of FTI is not based on a uniform or regional clearance specification or a "desired clearance". Outage analysis and trends are intended to help inform the Vegetation Management Inspection (VMI) to identify which species and failure types are increasing localized outage trends. For example, the information shared above is intended to help inform the VMI to identify which species and failure types are increasing localized outage trends. For example, the information shared above is intended to help inform the VMI to identify which species and failure types are increasing localized outage trends. For example, the information shared above is intended to help inform the VMI to identify which species and failure types are increasing localized outage trends.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
154	CAIPA	Set WMP-15	CAIPA_Set WMP-15_05	5	CAIPA_Set WMP-15_05	<p>PG&E states in its responses to Question 2 (c) of CaliforniaPGE-2023WMP-08 that it "utilizes EIM EPSS, manual outage data, historical VM outage data, and customer outage impact data" in deriving the VMOI scope of work.</p> <p>a) Please describe how PG&E has utilized each of the following data types in deriving the VMOI scope of work: EIM EPSS-enabled outage data, historical VM outage data, and customer outage impact data.</p> <p>b) Please describe how PG&E has utilized each of the following data types in deriving the VMOI scope of work: EIM EPSS-enabled outage data, historical VM outage data, and customer outage impact data.</p>	<p>a) EIM EPSS-enabled outage data was used to determine both a planned unit forecast and identify CPDs where EPSS is utilized.</p> <p>b) Historical VM outage data was used to identify CPDs where recurring VM outages took place.</p> <p>c) Customer outage impact data was used to identify customers who experienced more frequent outages.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
155	CAIPA	Set WMP-15	CAIPA_Set WMP-15_06	6	CAIPA_Set WMP-15_06	<p>PG&E states in its responses to Question 1 (c) of CaliforniaPGE-2023WMP-08 that: For FTI, Areas of Concern (AOCs) were identified through a cross-functional effort utilizing zoning-based regional and local data, including historical outage data, and other data. AOCs were identified through a cross-functional effort utilizing zoning-based regional and local data, including historical outage data, and other data. AOCs were identified through a cross-functional effort utilizing zoning-based regional and local data, including historical outage data, and other data.</p> <p>a) Please describe how PG&E has identified Areas of Concern (AOCs) for FTI.</p> <p>b) Please describe how PG&E has identified Areas of Concern (AOCs) for FTI.</p> <p>c) Please describe how PG&E has identified Areas of Concern (AOCs) for FTI.</p>	<p>a) WORM3 Consequence scores aided in quality checking the ACC polygons. Adding this to the process resulted in adding two additional ACC polygons containing 22 circular miles. WORM3 was also used to rank and prioritize the ACC for the branch.</p> <p>b) Public Safety Specialist (PSS) crew-based field assessments were not specifically developed to identify vegetation issues but often reported the outage cluster data also utilized for the project. When strongly identified existing between circuits PSS noted very high severity and overtopped with other VMI specific outage, ignition, or PPSB damage data an ACC polygon was developed. If a PSS may flag to severe circuit safety condition or did not align with VMI specific data as repetitive, ACC polygons were not developed.</p> <p>c) 30-year reentry/replacement data was provided to the ACC development team to understand historical damage and FTI-CPD coverage at the regional level. This was additional context and utilized on a limited basis to inform ACC polygons. At the recommendation of the Meteorology Team it was determined that the PPSB backlog polygons described in (c) were a better dataset for use in ACC development.</p> <p>d) PPSB backlog polygons consolidated at geographic areas impacted by PPSB 2018-2021. When strongly aligned with other VMI specific outage, ignition and PPSB damage data, ACC polygons were developed.</p> <p>e) PPSB backlog polygons were utilized to inform VMI ACC polygon development. ACC development methodology was specific to prioritizing work by Vegetation Management to reduce tree caused outage and ignitions.</p> <p>f) Vegetation caused ignition data was utilized to indicate areas where historical ignitions were attributed to tree contacts with assets. This data was broken into six classes to better inform where these ignitions led to wildfire or proved challenging to limit containment.</p> <p>g) Vegetation Caused outage data 2018-2021 was consolidated into buffered clusters by frequency. This data was further filtered for winter season and summer season. Outages were used as a proxy for potential ignitions. This was considered a strong predictor contributing dataset based on the assumption that areas experiencing higher frequency of historical outages were more likely to experience future outage without additional mitigation.</p> <p>h) Please see response 5.i.</p> <p>i) The predetermined thresholds were created to develop AOCs for 2023. This effort was intended to blend localized knowledge and best available data to identify areas that could be evaluated against existing models. This is a process intended to improve situational awareness for vegetation management. It is anticipated that AOCs will continue to evolve annually through a repeated process. Adding and removing AOCs is based on the experience and data available.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory

156	CaPA	Set WMP-15	CaPA_Set WMP-15_07	7	CaPA_Set WMP-15_07	<p>POE states in its response to Question 7 (a) of CalHorticulture-PGE-2023WMP-08 that "This Inventory Program" is planned to last 9 years. In response to Question 7 (a) of CalHorticulture-PGE-2023WMP-08, it provides a pace for the next three years of 15,000 trees in 2023, 20,000 trees in 2024, and 25,000 trees in 2025.</p> <p>POE explain why POE is forecasting it will take 9 years to work down its previously identified tree inventory. POE states the back for the development plan for the program just the year 2023?</p> <p>POE POE has current goals or targets for the program just the year 2023?</p> <p>POE clarify, based on the currently available knowledge, the ignition risk posed by the tree inventory if POE had not discontinued it at the end of 2022. How long would the EVM program have taken to work down its current tree inventory?</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
157	CaPA	Set WMP-15	CaPA_Set WMP-15_08	8	CaPA_Set WMP-15_08	<p>POE states in its response to Question 3 (b) of CalHorticulture-PGE-2023WMP-08 that "The Wildlife Data Risk Model (WDRM)" is used to identify the CPZs for the WMP program."</p> <p>POE provide the CPZs that were provided for the WMP program."</p> <p>POE was the WDRM of model utilized to prioritize the new CPZs?</p> <p>What risk treatment, or other criteria, was used in prioritizing the new CPZs?</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.3	Vegetation Management and Inspections	VM for Operational Mitigations
158	CaPA	Set WMP-15	CaPA_Set WMP-15_09	9	CaPA_Set WMP-15_09	<p>POE states in its response to Question 3 (f) of CalHorticulture-PGE-2023WMP-08 that "POE will utilize EPSS Outage/Emergency of Condition (EOP) patches to identify and generate additional tree work throughout the year. Additionally, EPSS outage data will be utilized in the scope of work development for the following year."</p> <p>POE provide the time frame or date when POE would plan to complete the additional tree work that is generated throughout the year.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.3	Vegetation Management and Inspections	VM for Operational Mitigations
159	CaPA	Set WMP-15	CaPA_Set WMP-15_10	10	CaPA_Set WMP-15_10	<p>POE states in its response to Question 4 (a) of CalHorticulture-PGE-2023WMP-08 that "Prior AOCs are prioritized using WDRM. The top 100 AOCs selected for 2023 incorporated additional resources from the VM Execution Operational Team to select appropriate regional areas to inform the program development."</p> <p>POE describe how the WDRM AOCs were prioritized using WDRM.</p> <p>WDRM scores were used to prioritize the top 100 AOCs. The top 100 AOCs were selected among the top 200 ranked AOCs. Prior AOC selection process is described in response 10.</p> <p>POE provide the list of areas were all selected from the highest ranked tranches as prioritized by WDRM. These tranches include the following: 1) San Joaquin Hills, 2) San Joaquin Hills, 3) San Joaquin Hills, 4) San Joaquin Hills, 5) San Joaquin Hills, 6) San Joaquin Hills, 7) San Joaquin Hills, 8) San Joaquin Hills, 9) San Joaquin Hills, 10) San Joaquin Hills.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2	Vegetation Management and Inspections	Focused Tree Inspections
160	CaPA	Set WMP-15	CaPA_Set WMP-15_11	11	CaPA_Set WMP-15_11	<p>POE states in its response to Question 4 (g) of CalHorticulture-PGE-2023WMP-08 that the scope of work for Focused Tree Inspection pilots is to perform a total of 300 CH on the risk assessment and optimize efficiencies. Inspections will utilize Tree Risk Assessment Qualification (TRAQ) Certified arborists. Tree risk ratings will be determined as necessary based on site and individual tree conditions. Pilots will begin in Q2 2023 and are intended to inform detailed WMP plans to determine tree mitigation, as necessary, within the above-detailed scope of work and within the FTI program."</p> <p>POE define the term "high-priority" as follows:</p> <p>POE clarify whether the scope referenced above is 300 tree miles or 300 circuit miles. Cal Arborists understand the term "tree miles" to be actual miles of conductor, such that one circuit mile of a three-phase circuit would be measured as 0.33 tree miles.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2	Vegetation Management and Inspections	Focused Tree Inspections
161	CaPA	Set WMP-15	CaPA_Set WMP-15_12	12	CaPA_Set WMP-15_12	<p>POE states in its response to Question 4 (h) of CalHorticulture-PGE-2023WMP-08 that "While inspection tools and data collection are expected to be standardized it is anticipated that regional guidance will develop historical outage data to help us identify factors specific to each Area of Concern that will be utilized after focused inspection events and prescriptions."</p> <p>POE describe how regional guidance will be developed after focused inspection events and prescriptions. If the pilots are complete? Please specify if not.</p> <p>POE please explain and provide relevant examples of how guidance would affect future AOCs.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.2.2	Vegetation Management and Inspections	Focused Tree Inspections
162	CaPA	Set WMP-15	CaPA_Set WMP-15_13	13	CaPA_Set WMP-15_13	<p>POE states in its response to Question 4 (i) of CalHorticulture-PGE-2023WMP-08 that "Phase or Fall criteria is not anticipated for the FTI program. FTI will use TRAQ Certified Arborists to perform inspections and prescribe work based on site and tree specific conditions. Some trees will be trimmed and other will be removed to address associated risk between inspection visits."</p> <p>POE provide all criteria that POE will employ to determine tree trimming and removal, including the documented "cut and tree specific conditions."</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	1	NA	8.2.2.2	Vegetation Management and Inspections	Focused Tree Inspections
163	CaPA	Set WMP-15	CaPA_Set WMP-15_14	14	CaPA_Set WMP-15_14	<p>POE states in its response to Question 4 (j) of CalHorticulture-PGE-2023WMP-08 that "POE has performed tree loading which has shown OCS is able to detect and de-energize downed conductors including splices, etc. where installed."</p> <p>POE describe the methods, scope, and findings of high-impedance load testing, including reports, etc.</p> <p>POE provide any documents generated from the aforementioned load testing, including reports, etc.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	1	NA	8.2.3	Vegetation Management and Inspections	Fall-In-Mitigation
164	CaPA	Set WMP-15	CaPA_Set WMP-15_15	15	CaPA_Set WMP-15_15	<p>POE states in its response to Question 12 of CalHorticulture-PGE-2023WMP-08 that "Should a program fail below a 95% pass rate, each back plans will be developed in partnership with VM execution to mitigate for program delivery and risk identification."</p> <p>POE describe the nature of the aforementioned "back plans."</p> <p>POE provide a list of back plans that were implemented as a result of program delivery and risk identification.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.5	Vegetation Management and Inspections	Quality Assurance/Quality Control
165	CaPA	Set WMP-15	CaPA_Set WMP-15_16	16	CaPA_Set WMP-15_16	<p>POE states in its response to Question 13 (parts a, b, and c) of CalHorticulture-PGE-2023WMP-08 that "Improved quality verticals have been established and communicated across the VM organization prior to beginning 2023 audits."</p> <p>POE state and describe the "improved quality verticals" that have been established for 2023.</p> <p>POE describe the "greater insight into overall VM work product throughout and risk identification/mitigation" that was provided by the improved quality verticals.</p> <p>POE provide the definition of the following terms that "were established and communicated across the VM organization prior to beginning 2023 audits":</p> <ul style="list-style-type: none"> A. Acceptance criteria B. Sampling methodology C. Population eligibility D. Population eligibility 	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.5.1	Vegetation Management and Inspections	Quality Assurance and Quality Verification
166	CaPA	Set WMP-15	CaPA_Set WMP-15_17	17	CaPA_Set WMP-15_17	<p>POE states in its response to Question 17(a) of CalHorticulture-PGE-2023WMP-08 that "The Routine and Second Phase POE does not currently have standards specific to high-risk species, but that routine trees will be incorporated into Focused Tree Inspections pilots in 2023. POE states in its response to question 17(b) that "Development of any standards related to high-risk species is still being determined and contingent upon completion of FTI pilots in 2023. A determination will be made specific to their program as its guidance is finalized between the pilots."</p> <p>POE does POE not have standards specific to high-risk species for routine and second phase? POE does POE plan to develop standards related to high-risk species for Areas of Concern, rather than throughout the service territory?</p> <p>POE in POE establishing the standards for high-risk species?</p> <p>What methods is POE using to establish the standards for high-risk species?</p> <p>What experts is being used for this standard?</p> <p>Is POE undertaking independent third party review, peer review, or some other method to provide independent assurance of their proposed standards?</p> <p>Without POE plan to expand standards related to high-risk species developed for its Areas of Concern for use throughout its service territory?</p> <p>Will you please describe POE's planned process for doing so.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.3	Vegetation Management and Inspections	High-Risk Species
167	CaPA	Set WMP-15	CaPA_Set WMP-15_18	18	CaPA_Set WMP-15_18	<p>POE states in its response to Question 18 of CalHorticulture-PGE-2023WMP-08 that "The Quality Management team has adopted an existing target pass rate of 95% for Focused Quality Control Active Operations Programs for the following core vegetation management programs: Routine Distribution, Second Phase Distribution, and Routine Transmission."</p> <p>POE state the basis, provide the method, and supporting documentation for the aforementioned 98% target pass rate.</p>	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	2	NA	8.2.3	Vegetation Management and Inspections	High-Risk Species
168	CaPA	Set WMP-15	CaPA_Set WMP-15_19	19	CaPA_Set WMP-15_19	<p>POE states in its response to Question 5 of CalHorticulture-PGE-2023WMP-08, POE provides the following table of actual and forecasted costs for vegetation management programs. POE provide the following table of actual and forecasted costs for vegetation management programs for VM for Operational Mitigations, and Tree Removal Inventory."</p> <p>POE explain this table includes the actual and forecasted costs for each EVM Transitional Program, including: Focused Tree Inspections, VM for Operational Mitigations, and Tree Removal Inventory.</p> <p>POE explain how POE plans to achieve the following cost reductions in vegetation management as demonstrated in the above table:</p> <ul style="list-style-type: none"> \$331,522,000 between 2022 and 2023 \$4,481,000 between 2023 and 2024 	Holly Wehman	4/11/2023	4/14/2023	4/14/2023	0	NA	8.2.5.2	Vegetation Management and Inspections	Quality Control

169	CAI/PA	Set WMP-15	CAI/PA_Set WMP-15	20	CAI/PA_Set WMP-15_020	In its response to Question 15(a) of CAI/PA/CAI-PA-2023-WMP-08, PGOE says, "We do not have a source for..." a. Do you have a source for individual trees and are available to provide this information? If so, please provide the source for individual trees. b. Do you have a source for individual trees and are available to provide this information? If so, please provide the source for individual trees. c. Do you have a source for individual trees and are available to provide this information? If so, please provide the source for individual trees. d. Do you have a source for individual trees and are available to provide this information? If so, please provide the source for individual trees.	Yehly Wehman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge-global/common/rfu/.../4/14/2023/4/14/2023	0	NA	8.2.3.4	Vegetation Management and Inspections	Fall-In-Mitigation
170	TURN	004	TURN_004	1	TURN_004_021	Following up on the response to TURN Data Request 3, Question 2, please provide PGOE's data showing the "recorded" liability improvements at locations that have been undergrounded and/or have been hardened with covered conductors that will be assessed in the study planned for completion on June 30, 2023.	Tom Long	4/12/2023	4/17/2023	4/17/2023	https://www.pge.com/pge-global/common/rfu/.../4/17/2023/4/17/2023	1	Yes	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
171	TURN	004	TURN_004	2	TURN_004_022	Regarding Table PGOE-22-35-1 (PSPS Events Lookback Analysis) on page 972 of PGOE's 2023-2025 WMP: 1. For each column with numbers, provide a verbal description of all input data and of how the numbers in each column were calculated. 2. Provide the table in its Excel format.	Tom Long	4/12/2023	4/17/2023	4/17/2023	https://www.pge.com/pge-global/common/rfu/.../4/17/2023/4/17/2023	1	NA	Appendix D	ACI PGOE-22-35 Quantify Migration Benefits of Reducing PSPS Size, Scope, and Frequency	Areas for Continued Improvement
172	TURN	004	TURN_004	3	TURN_004_023	Regarding PGOE's response to ACI PGOE-22-35, beginning on page 971 of its WMP: 1. Please identify each mitigation discussed in PGOE's current WMP as to its impact on the potential to mitigate the scale, scope, frequency, or duration of PSPS events. 2. Please explain why Table 22-35-1 only looks at the impact of two mitigations, undergrounding and MSO, and does not consider the other mitigations identified in response to subject (a). 3. Please provide the PGOE analyses similar to what is presented in Table 22-35-1 regarding the impact of PSPS scale, scope, frequency, or duration of any or all of the other mitigations identified in response to subject (a). 4. Regarding the statement on page 971: "We concluded that none of the 2022 mitigation initiatives eliminated any event." 5. Please identify each of the 2022 mitigation initiative that are referenced in this statement. 6. In the meaning of this statement that one of the 2022 mitigation initiatives reduced the scale, scope, frequency or duration of any event? If not, please explain what is meant by the statement and how it relates to the analysis presented in Table 22-35-1.	Tom Long	4/12/2023	4/17/2023	4/17/2023	https://www.pge.com/pge-global/common/rfu/.../4/17/2023/4/17/2023	0	NA	Appendix D	ACI PGOE-22-35 Quantify Migration Benefits of Reducing PSPS Size, Scope, and Frequency	Areas for Continued Improvement
173	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003_001	1	CPUC - SPD (Safety Policy Division)_003_001	1. Fill in the attached spreadsheet "Wildfire Mitigation Table DR - PGOE". The first tab is a "Discovery" which please use to complete with data provided from PGOE.	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge-global/common/rfu/.../4/19/2023/4/19/2023	1	NA	8	Wildfire Mitigation	NA
174	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003_002	2	CPUC - SPD (Safety Policy Division)_003_002	2. In PGOE_2023_WMP_R0_Section_842_A60611, SPD has observed the mitigation effectiveness of Covered Conductor 1 as the order of 49% compared to the value reported in the WMP which is 54% (page 345). Explain the discrepancy.	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge-global/common/rfu/.../4/19/2023/4/19/2023	0	NA	8.1.2.1	Grid Design and System Hardening	Covered Conductor Installation - Distribution
175	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003_003	3	CPUC - SPD (Safety Policy Division)_003_003	3. Confirm or revise PGOE's Butte County OH to US conversion factor in the 2023-2025 WMP (currently 1.57) in the CPUC based on actual and estimated US miles for 2023-2028 in the PGOE 2023 LDC Reply Brief (Doc 22) PGOE forecast 2,000 BU-LG miles (MAT 8W) and 100 Butte County US miles (MAT 5F) for 2023-2028.	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge-global/common/rfu/.../4/19/2023/4/19/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
176	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003_004	4	CPUC - SPD (Safety Policy Division)_003_004	4. Based on WSPS' initial review of the wildfire ignition and general understanding of PGOE's undergrounding program, it appears that undergrounding would have prevented only 17% of CPUC-reportable ignitions in the HFTD zone based on PGOE's undergrounding approach used or would not mitigate this ignition. SPD noted ten CPUC-reportable ignitions in PGOE territory during 2022 which were related to undergrounding. The data used in the ignition data sheet here, "Wildfire and Wildfire Safety Log (WISL)", shows WSPS is still cleaning the data and determining the best methodology to analyze the data. 5. Provide the justification for the 99% mitigation effectiveness value for undergrounding related to the Wildfire Mitigation Plan. Explain how secondary, service conductor, and underground ignitions were accounted for in the 99% mitigation effectiveness. 6. Provide the percentage of CPUC-reportable ignitions in the HFTD zone undergrounding would be expected to remediate, accounting for secondary and service conductors. 7. Provide a description of each CPUC-reportable ignition related to undergrounding that occurred in 2022 and describe how PGOE's undergrounding approach used or would not mitigate this ignition. 8. Provide general understanding that ignitions from secondary conductors and service drops are accounted for in the methodology for calculating the effectiveness for both covered conductor and EPSS, but the risk does not appear to be accounted for the same way for undergrounding. Explain the difference in the methodology for how the 99% mitigation effectiveness for undergrounding is calculated as compared to the 99% mitigation effectiveness for covered conductor and EPSS. 9. Explain how the mitigation effectiveness is applied to the ignition calculation (such as approach used in PGOE_2023_WMP_R0_Section_842_A60611) and contrast this approach to the approach used for covered conductor and EPSS. 10. Provide the number of CPUC-reportable ignitions related to HFTD in secondary and service conductors for each year starting in 2014 onward.	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge-global/common/rfu/.../4/19/2023/4/19/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
177	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003_005	5	CPUC - SPD (Safety Policy Division)_003_005	5. Regarding the LDC workplan table provided to PGOE_2023-04-27_POE_2023_WMP_R0_Appendix C ACI PGOE-22-16_C0NF risk: Why does it end at 3:30? Why does it start at 1:00? Why does it start at 1:00? Why does it end at 3:30? Why does it end at 3:30? Why does it end at 3:30? Why does it end at 3:30?	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge-global/common/rfu/.../4/19/2023/4/19/2023	0	NA	Appendix D	ACI PGOE-22-16 - Progress and Status on Undergrounding and Risk Prioritization	Areas for Continued Improvement

187	OEB	002	OEB_002	10	CEIS_002_010	<p>1. Provide an Excel sheet listing all work orders closed by PG&E in 2022 following the same format and information as Table 11 of the QDR, with the additional columns:</p> <p>a. Data the work order was closed</p> <p>b. ROPSE Priority (A, B, E, H, and F)</p> <p>c. Whether or not the fraction qualified as an "Ignition-Risk HTD/HFRA" tag</p> <p>d. Whether the fraction is Non-PWR or PWR</p> <p>e. Provide an updated Excel sheet listing all current open work orders following the same format and information as Table 11 of the QDR, with the additional columns:</p> <p>f. ROPSE Priority (A, B, E, H, and F)</p> <p>g. Whether or not the fraction qualifies as an "Ignition-Risk HTD/HFRA" tag</p> <p>h. Whether the fraction is Non-PWR or PWR</p>	<p>4. Please see the "Table 13 - Closed" tab in attachment "WMP-Discovery2023_DR_OEB_002-001A001.xlsx" for the requested information.</p> <p>Please note, this data was pulled on January 31, 2023.</p> <p>5. Please see the "Table 13 - Open" tab in attachment "WMP-Discovery2023_DR_OEB_002-001A001.xlsx" for the requested information.</p> <p>Please note, this data was pulled on February 20, 2023.</p>	Colin Long	4/19/2023	5/6/2023	5/6/2023	1	NA	8.1.7	Open Work Orders	NA
188	TURN	005	TURN_005	1	TURN_005_01	<p>1. Please provide any decision tree schematic in PG&E's possession that shows, for a given location where PG&E believes that system hardening is necessary, how PG&E decides which mitigation technique to use - i.e., undergrounding, covered conductor, remote grid installation, etc. - including without limitation the criteria that PG&E uses to select the mitigation technique for that location. Please provide a narrative explanation of what the decision tree schematic shows.</p>	<p>PG&E has used three relevant decision trees to scope work for System Hardening: (1) System Hardening, (2) Targeted Undergrounding, and (3) Fire Rebuild taking place in an FTED. Before the Targeted UG program, PG&E determined using the System Hardening decision tree attachment (WMP-Discovery2023_DR_TURN_005-001A001) the relevant decision trees (see attachment WMP-Discovery2023_DR_TURN_005-001A001) to scope work. Most of the system hardening work in 2023 was scoped using these decision trees.</p> <p>Since late 2021, PG&E has completed most of our new planned scoping using a Targeted Undergrounding decision tree (see attachment WMP-Discovery2023_DR_TURN_005-001A001) after the response is considered (if feasible). If undergrounding is ultimately determined to be infeasible, we typically proceed with overhead covered conductors.</p> <p>Since our current scoping efforts primarily utilize the Targeted undergrounding decision tree, and the tree's relevant decision tree (where appropriate), we provide additional context regarding these trees below in response to this request.</p> <p>The primary approach for selecting undergrounding risks used two risk prioritization methodologies: (1) Top 30 percent circuit segments based on the 2021 WORM v2; and (2) the WSRFE Feasibility Efficiency (WFE)/ranked circuit segments based on the 2022 WORM v3 and considering undergrounding feasibility. Both approaches used to select undergrounding projects represent approximately 70 percent of our total undergrounding circuit included in the WMP. The process, as shown on the decision tree attachment and described below, is split into four key phases:</p> <ol style="list-style-type: none"> 1. Circuit Segment Risk Ranking (orange box): First prioritize circuit segments in the locations where wildfire risk is the highest based on the latest wildfire distribution risk model (currently WORM v3). 2. Circuit Selection Prioritization Process (blue boxes): Then identify potential environmental conditions that impact feasibility of undergrounding (water crossing, rock type, gradient), and calculate wildfire feasibility efficiency (WFE) by circuit segment to prioritize undergrounding in the locations where WFE is the highest. 3. Feasibility Study (green boxes): First, we confirm the segment identified is not already completed or included in ongoing work. Then, engineering review identifies opportunities to improve efficiency and mitigate additional impacts, including adjusting the project to mitigate PFRS or EPSS impacts, determining if undergrounding is cost-effective (if so, identifying alternatives such as overhead, remote grid or typical), and confirming if there are any recent changes to the electric assets. 4. Field Scoping (orange boxes): Field scoping then takes place, which is focused on identifying impediments to the proposed project risks and determining if a route or scope change is needed. If so, an alternative route is developed. 	Tom Long	4/19/2023	4/19/2023	4/19/2023	3	NA	8.1.2	Grid Design and System Hardening	ALL
189	TURN	005	TURN_005	2	TURN_005_02	<p>2. If the response to question 1 is that PG&E has no such decision tree schematic, then please describe the process that PG&E uses to decide, for a given location, which mitigation technique to use - i.e., undergrounding, covered conductor, remote grid installation, etc. - including without limitation the criteria that PG&E uses to select the mitigation technique for that location.</p>	<p>Not applicable. PG&E has a decision tree. Please see our response to TURN_005-0001.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2	Grid Design and System Hardening	ALL
190	TURN	005	TURN_005	3	TURN_005_03	<p>3. In choosing among alternative system hardening mitigation techniques - i.e., undergrounding, covered conductor, remote grid installation, etc. - for a given location, please explain how PG&E takes into account the execution and maintenance associated with each undergrounding option that alternative. PG&E decision trees show this in 2022-2025 WMP at pages 34-34S. They also discuss PG&E's Revised 2021 WMP (revision dated 05/07/21 at pages 05-001 (Section 7.3.3.17), Section 509)), where PG&E uses the terms "recreation risk" and "technical risk."</p>	<p>During the field scoping process, the team reviews all high-priority dependencies that could extend the execution date of the project. These dependencies include, but are not limited to, the availability of construction resources, permit and mitigate that risk, and the steps we can take to work with the applicable agencies to address potential agency and permit dependencies (e.g., permit and mitigate that risk).</p> <p>Our current strategy is to plan for potential execution and execution risks by adding partners to remove dependencies. If there is a location where undergrounding is infeasible that we cannot solve through execution or other mitigation.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2	Grid Design and System Hardening	ALL
191	TURN	005	TURN_005	4	TURN_005_04	<p>4. For the undergrounding work described in PG&E's 2023-2025 WMP, please describe PG&E's policy concerning undergrounding of service connections and the removal of poles on which service connections are attached. To the extent that the determination varies by project, please describe the criteria that PG&E uses to decide whether PG&E undergrounds service connections in a given location.</p>	<p>Our UG-based undergrounding projects focus on primary distribution lines. The highest priority distribution lines have a high level of risk. There is a degree of risk anywhere there are energized overhead facilities, historically we have been overhead lines.</p> <p>There are a few areas where undergrounding is not the preferred option. This is because of the high voltage secondary distribution lines, service connections, and high voltage transmission lines.</p> <p>In areas that we are not undergrounding low voltage secondary lines, service connections, and high voltage transmission lines, we are not undergrounding low voltage secondary lines, service connections, and high voltage transmission lines. In these special cases, the poles attached to the secondary lines will be removed.</p> <p>We will maintain the poles attached to the secondary lines until they are removed. We will maintain the poles attached to the secondary lines until they are removed. We will maintain the poles attached to the secondary lines until they are removed.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
192	TURN	005	TURN_005	5	TURN_005_05	<p>5. For the undergrounding work described in PG&E's 2023-2025 WMP, please describe PG&E's policy concerning undergrounding of secondary distribution lines (as opposed to primary lines) and the removal of poles on which secondary lines are attached. To the extent that the determination varies by project, please describe the criteria that PG&E uses to decide whether PG&E undergrounds secondary lines in a given location.</p>	<p>Please see response to TURN_005-0004, which includes our policy as it relates to secondary distribution lines.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
193	TURN	005	TURN_005	6	TURN_005_06	<p>6. For the distribution circuits on which PG&E plans System Hardening (undergrounding) (as opposed to Rebuild undergrounding) (as that term is used in PG&E's WMP (see, e.g., Table PG&E-A-1.2-2 on page 34)), please provide PG&E's best estimate of the percentage of existing poles in the affected circuits (including poles supporting primary lines, secondary lines, and services) that will be removed as a result of the planned System Hardening undergrounding mileage in 2023-2025. Please explain how PG&E made this calculation and provide all trace and assumptions.</p>	<p>PG&E does not currently track the existing poles that will be removed by undergrounded circuits. The analysis would require information on the following:</p> <ul style="list-style-type: none"> - Determining the poles that will be removed. - Determining the poles that are not removed. - Determining the poles that are not removed and will remain after undergrounding. <p>PG&E has a best estimate of the percentage of existing poles that will be removed. PG&E has a best estimate of the percentage of existing poles that will be removed. PG&E has a best estimate of the percentage of existing poles that will be removed.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
194	TURN	005	TURN_005	7	TURN_005_07	<p>7. WMP request for the values for 2023-2025 in the column for Estimated System Hardening Undergrounding Miles in Table PG&E-A-1.2-2 on page 34 of PG&E's 2023-2025 WMP.</p> <p>8. For each year, please provide PG&E's estimate of the overhead circuit miles that will be replaced and explain how this estimate was determined.</p> <p>9. For the figures provided in response to question 7, please provide an estimated breakdown of the overhead circuit miles replaced by: primary lines, secondary lines, and services.</p>	<p>PG&E has a best estimate of the percentage of existing poles that will be removed. PG&E has a best estimate of the percentage of existing poles that will be removed. PG&E has a best estimate of the percentage of existing poles that will be removed.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
195	TURN	005	TURN_005	8	TURN_005_08	<p>8. WMP request for the values for 2023-2025 in the column for Estimated Butte County Rebuild Miles in Table PG&E-A-1.2-2 on page 34 of PG&E's 2023-2025 WMP.</p> <p>9. For each year, please provide PG&E's estimate of the overhead circuit miles that will be replaced and explain how this estimate was determined.</p> <p>10. For the figures provided in response to question 7, please provide an estimated breakdown of the overhead circuit miles replaced by: primary lines, secondary lines, and services.</p>	<p>PG&E has a best estimate of the percentage of existing poles that will be removed. PG&E has a best estimate of the percentage of existing poles that will be removed. PG&E has a best estimate of the percentage of existing poles that will be removed.</p>	Tom Long	4/19/2023	4/19/2023	4/19/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
196	CAIPA	Set WMP-16	CAIPA_Set WMP-16	1	CAIPA_Set WMP-16_01	<p>Regarding PG&E's SCADA Underlying (UD) Switches:</p> <p>a) Please explain PG&E's operating procedures for operating a SCADA UD switch to energize and de-energize a circuit or circuit segment.</p> <p>b) Please provide PG&E's written procedures or other documentation related to your response to part (a).</p> <p>c) Please explain in detail PG&E's operating procedures, from start to finish, for the following operation: after opening a normally closed switch, the switch is returned to its normally closed position during switching.</p> <p>d) Please explain in detail PG&E's operating procedures, from start to finish, for the following operation: after opening a normally open switch, the switch is returned to its normally open position during switching.</p>	<p>The confidential attachments are being provided pursuant to the accompanying confidentiality declaration.</p> <p>RT SCADA with load on SCADA devices before and after de-energizing. Energizing with a SCADA UD switch will have SCADA data protective device (SDPD) ready to trip. The ground relay will be checked to verify it is in a closed command will be given in RT SCADA to energize the switch, and then the load will be taken once closed.</p> <p>Returning relay will then be set to its normal state and SDPD ready to trip.</p> <p>If the response to question 7, please provide an estimated breakdown of the overhead circuit miles replaced by: primary lines, secondary lines, and services.</p>	Holly Wetman	4/19/2023	4/21/2023	4/21/2023	2	NA	8.1.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
197	CAIPA	Set WMP-16	CAIPA_Set WMP-16	2	CAIPA_Set WMP-16_02	<p>Regarding PG&E's Load Break Devices:</p> <p>a) Please explain PG&E's operating procedures for operating a load break elbow in a vault to energize or de-energize a circuit or circuit segment.</p> <p>b) Please provide PG&E's written procedures or other documentation related to your response to part (a).</p> <p>c) Please explain in detail PG&E's operating procedures, from start to finish, for the following operation: after closing a load break elbow that is normally in an open position, the circuit segment is returned to its normally open position during switching.</p> <p>d) Please explain in detail PG&E's operating procedures, from start to finish, for the following operation: after closing a circuit segment via a junction box that is normally in an open position, the circuit segment is returned to its normally closed position during switching.</p>	<p>The confidential attachments are being provided pursuant to the accompanying confidentiality declaration.</p> <p>RT SCADA with load on SCADA devices before and after de-energizing. Energizing with a SCADA UD switch will have SCADA data protective device (SDPD) ready to trip. The ground relay will be checked to verify it is in a closed command will be given in RT SCADA to energize the switch, and then the load will be taken once closed.</p> <p>Returning relay will then be set to its normal state and SDPD ready to trip.</p> <p>If the response to question 7, please provide an estimated breakdown of the overhead circuit miles replaced by: primary lines, secondary lines, and services.</p>	Holly Wetman	4/19/2023	4/21/2023	4/21/2023	0	NA	8.1.2.10.3	Grid Design and System Hardening	Motor Switch Operator Switch Replacement
198	CAIPA	Set WMP-16	CAIPA_Set WMP-16	3	CAIPA_Set WMP-16_03	<p>Regarding PG&E's Junction Boxes:</p> <p>a) Please explain PG&E's operating procedures for operating a junction box in a vault to energize or de-energize a circuit or circuit segment.</p> <p>b) Please provide PG&E's written procedures or other documentation related to your response to part (a).</p> <p>c) Please explain in detail PG&E's operating procedures, from start to finish, for the following operation: after closing a circuit segment via a junction box that is normally in an open position, the circuit segment is returned to its normally open position during switching.</p> <p>d) Please explain in detail PG&E's operating procedures, from start to finish, for the following operation: after closing a circuit segment via a junction box that is normally in a closed position, the circuit segment is returned to its normally closed position during switching.</p>	<p>The confidential attachments are being provided pursuant to the accompanying confidentiality declaration.</p> <p>RT SCADA with load on SCADA devices before and after de-energizing. Energizing with a SCADA UD switch will have SCADA data protective device (SDPD) ready to trip. The ground relay will be checked to verify it is in a closed command will be given in RT SCADA to energize the switch, and then the load will be taken once closed.</p> <p>Returning relay will then be set to its normal state and SDPD ready to trip.</p> <p>If the response to question 7, please provide an estimated breakdown of the overhead circuit miles replaced by: primary lines, secondary lines, and services.</p>	Holly Wetman	4/19/2023	4/21/2023	4/21/2023	0	NA	8.1.2.10	Grid Design and System Hardening	Other Grid Topology Improvements to Mitigate Risk of System

204	CaPA	Set WMP-16	CaPA_Set WMP-16	9	CaPA_Set WMP-16_G0	<p>5.1.2.10 - Other Grid Topology Improvements to Minimize Risk of Ignitions</p> <p>5.1.2.10.1 - Directed Conductor Detection Device</p> <p>5.1.2.10.2 - PG&E WMP Assets: "Installation of DCC on existing, new, and retrofitted recloser controllers is required to reduce the number of ignitions due to high impedance line-to-ground faults by quickly detecting and de-energizing the fault, which is the primary existing gap in EPSS protection on primary overhead distribution conductor. Approximately half of the CPUC-reportable ignitions in HTFD that occurred in 2022 while EPSS was operational were the result of high impedance faults."</p> <p>1) Explain the existing gap on EPSS.</p> <p>2) Detail how DCC retrofits will mitigate the gap to encompass all high impedance faults.</p> <p>3) List the advantages of having both programs working simultaneously.</p> <p>4) What percentage of high-impedance faults does PG&E articulate could be mitigated by EPSS alone?</p> <p>5) What percentage of high-impedance faults does PG&E articulate could be mitigated by DCC alone?</p> <p>6) What percentage of high-impedance faults does PG&E articulate could be mitigated by the combination of EPSS and DCC?</p>	Holly Wehman	4/18/2023	4/21/2023	4/21/2023	0	NA	8.1.2.10	Grid Design and System Hardening	Other Grid Topology Improvements to Minimize Risk of Ignitions
205	CaPA	Set WMP-16	CaPA_Set WMP-16	10	CaPA_Set WMP-16_O10	<p>Provide an Excel sheet listing each circuit (in its own row) that had circuit outages that occurred from 2020 to 2022 in any HTFD area. A circuit outage is when the destination circuit breaker trips and de-energizes the entire circuit due to a fault. For each circuit with an outage, the Excel sheet should list each Circuit Outage as a row. Please provide the following additional information (in columns):</p> <p>a) ID number of the circuit affected</p> <p>b) The date of the outage</p> <p>c) Cause of outage</p> <p>d) For all equipment failure outages, please state the specific type of failure (i.e., OH transformer failure, overhead cross arm, US transformer failure, cable failure, saline failure, etc.)</p> <p>e) The outage location in statute</p> <p>f) The total number of customers impacted</p> <p>g) "NA" indicates that there are no completed projects for that circuit</p> <p>h) If all or part of the circuit is currently undergoing, provide the date that OH to LG conversion was completed</p> <p>i) If all or part of the circuit is in scope of a planned undergrounding project, the forecast completion date of the OH to LG conversion project</p>	Holly Wehman	4/18/2023	4/21/2023	4/21/2023	1	NA	QDR	NA	NA
206	CaPA	Set WMP-16	CaPA_Set WMP-16	11	CaPA_Set WMP-16_O11	<p>Regarding PG&E's Average Peak Load for LG Projects: For the purposes of this question, if any portion of a circuit will be undergrounded as part of an OH to LG conversion project, the circuit should be included in the average peak load to circuit capacity in percent from 2018 to 2023 for the circuits with OH to LG conversion completed in 2020.</p> <p>a) Provide the average peak load to circuit capacity in percent from 2018 to 2023 for the circuits with OH to LG conversion completed in 2020.</p> <p>b) Provide the average peak load to circuit capacity in percent from 2019 to 2021 for the circuits with OH to LG conversion completed in 2021.</p> <p>c) Provide the average peak load to circuit capacity in percent from 2020 to 2022 for the circuits that will be undergrounded in 2023.</p> <p>d) Provide the average peak load to circuit capacity in percent from 2020 to 2022 for the circuits that will be undergrounded in 2024.</p> <p>e) Provide the average peak load to circuit capacity in percent from 2020 to 2022 for all adjacent circuits to the circuits that have OH to LG conversion projects in 2023.</p> <p>f) Provide the average peak load to circuit capacity in percent from 2020 to 2022 for all adjacent circuits to the circuits that have OH to LG conversion projects in 2024.</p> <p>EMD OF</p>	Holly Wehman	4/18/2023	4/26/2023	4/26/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and Equipment
207	MORA	Data Request No. 2	MORA_Data Request No. 2	1	MORA_Data Request No. 2_O1	<p>With regard to PG&E's response to CaPA_Set WMP-16_O14: PG&E states that one of the significant changes to the grid required by REFLC is "the replacement of old, direct bury underground cable". Please explain the inapplicability of "old, direct bury underground cable" REFLC.</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
208	MORA	Data Request No. 2	MORA_Data Request No. 2	2	MORA_Data Request No. 2_O2	<p>With regard to PG&E's response to CaPA_Set WMP-16_O14: PG&E states that one of the significant changes to the grid required by REFLC is "the replacement of old, direct bury underground cable". Does PG&E have any recently undergrounded segments that are also "direct bury"?</p> <p>If so, would these be incompatible with REFLC?</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
209	MORA	Data Request No. 2	MORA_Data Request No. 2	3	MORA_Data Request No. 2_O3	<p>With regard to PG&E's response to CaPA_Set WMP-16_O14: PG&E states that one of the significant changes to the grid required by REFLC is "the replacement of old, direct bury underground cable". Does PG&E have undergrounding projects include "direct bury" and if so, would that make these segments incompatible with REFLC?</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	0	NA	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
210	MORA	Data Request No. 2	MORA_Data Request No. 2	4	MORA_Data Request No. 2_O4	<p>Please provide non-confidential versions of the following documents: WMP-Disclosure2023_DR_OES_001-0007A600CNF.pdf</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	1	NA	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
211	MORA	Data Request No. 2	MORA_Data Request No. 2	5	MORA_Data Request No. 2_O5	<p>Please provide non-confidential versions of the following documents: WMP-Disclosure2023_DR_OES_001-0007A600CNF.pdf</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	1	NA	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
212	MORA	Data Request No. 2	MORA_Data Request No. 2	6	MORA_Data Request No. 2_O6	<p>Please provide non-confidential versions of the following documents: WMP-Disclosure2023_DR_OES_001-0007A600CNF.pdf</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	1	NA	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
213	MORA	Data Request No. 2	MORA_Data Request No. 2	7	MORA_Data Request No. 2_O7	<p>The method of providing a geospatial file with the location of 2022 outages on EPSS enabled circuits would require the creation of a new dataset and therefore the geospatial representation of outage location that would be provided in this response to this date request involves the identification of Critical Energy Infrastructure Information (CEII), which we are required by law to maintain as confidential and cannot produce without the necessary privacy agreement.</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
214	MORA	Data Request No. 2	MORA_Data Request No. 2	8	MORA_Data Request No. 2_O8	<p>Please provide a GIS file of 2022 ignitions occurring on circuits where EPSS was enabled.</p>	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	1	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
215	OES	003	OES_003	1	OES_003_O1	<p>Regarding Activities that Exceed GO 186</p> <p>On page 624, PG&E states "is currently working with internal and external stakeholders, including CADES, to identify and implement activities that exceed compliance requirements in CPUC General Order (GO) 186, Standards for Operation, Reliability, and Safety During Emergencies and Disasters."</p> <p>1. List and describe the referenced activities.</p> <p>2. Explain why you have satisfied activity exceeds GO 186.</p> <p>3. The table below provides our current plans beyond the objectives in Table B-33 and Table B-34 of our WMP. Columns include the objective, the objective ID, the objective title, and the objective description.</p> <p>4. "Disaster Preparedness, EMER-3012M"</p> <p>5. "Extreme Weather Annex, EMER-3008M"</p> <p>6. "Infectious Disease and Pandemic Response Annex, EMER-3103M"</p> <p>7. "Nuclear Annex"</p> <p>8. "Electric, EMER-3002M"</p> <p>9. "Emergency Communications, EMER-3008M"</p> <p>10. "Information Technology, EMER-3007M"</p> <p>11. "Hazardous Materials Annex, EMER-3008M"</p> <p>12. "Information Technology, EMER-3007M"</p> <p>13. "Natural Gas Annex, EMER-3008M"</p> <p>14. "Aviation Services Annex, EMER-3010M"</p> <p>15. "Aviation Services Annex, EMER-3010M"</p> <p>16. "Aviation Services Annex, EMER-3010M"</p> <p>17. "Aviation Services Annex, EMER-3010M"</p> <p>18. "Aviation Services Annex, EMER-3010M"</p> <p>19. "Aviation Services Annex, EMER-3010M"</p> <p>20. "Aviation Services Annex, EMER-3010M"</p> <p>21. "Aviation Services Annex, EMER-3010M"</p> <p>22. "Aviation Services Annex, EMER-3010M"</p> <p>23. "Aviation Services Annex, EMER-3010M"</p> <p>24. "Aviation Services Annex, EMER-3010M"</p> <p>25. "Aviation Services Annex, EMER-3010M"</p> <p>26. "Aviation Services Annex, EMER-3010M"</p> <p>27. "Aviation Services Annex, EMER-3010M"</p> <p>28. "Aviation Services Annex, EMER-3010M"</p> <p>29. "Aviation Services Annex, EMER-3010M"</p> <p>30. "Aviation Services Annex, EMER-3010M"</p> <p>31. "Aviation Services Annex, EMER-3010M"</p> <p>32. "Aviation Services Annex, EMER-3010M"</p> <p>33. "Aviation Services Annex, EMER-3010M"</p> <p>34. "Aviation Services Annex, EMER-3010M"</p> <p>35. "Aviation Services Annex, EMER-3010M"</p> <p>36. "Aviation Services Annex, EMER-3010M"</p> <p>37. "Aviation Services Annex, EMER-3010M"</p> <p>38. "Aviation Services Annex, EMER-3010M"</p> <p>39. "Aviation Services Annex, EMER-3010M"</p> <p>40. "Aviation Services Annex, EMER-3010M"</p> <p>41. "Aviation Services Annex, EMER-3010M"</p> <p>42. "Aviation Services Annex, EMER-3010M"</p> <p>43. "Aviation Services Annex, EMER-3010M"</p> <p>44. "Aviation Services Annex, EMER-3010M"</p> <p>45. "Aviation Services Annex, EMER-3010M"</p> <p>46. "Aviation Services Annex, EMER-3010M"</p> <p>47. "Aviation Services Annex, EMER-3010M"</p> <p>48. "Aviation Services Annex, EMER-3010M"</p> <p>49. "Aviation Services Annex, EMER-3010M"</p> <p>50. "Aviation Services Annex, EMER-3010M"</p> <p>51. "Aviation Services Annex, EMER-3010M"</p> <p>52. "Aviation Services Annex, EMER-3010M"</p> <p>53. "Aviation Services Annex, EMER-3010M"</p> <p>54. "Aviation Services Annex, EMER-3010M"</p> <p>55. "Aviation Services Annex, EMER-3010M"</p> <p>56. "Aviation Services Annex, EMER-3010M"</p> <p>57. "Aviation Services Annex, EMER-3010M"</p> <p>58. "Aviation Services Annex, EMER-3010M"</p> <p>59. "Aviation Services Annex, EMER-3010M"</p> <p>60. "Aviation Services Annex, EMER-3010M"</p> <p>61. "Aviation Services Annex, EMER-3010M"</p> <p>62. "Aviation Services Annex, EMER-3010M"</p> <p>63. "Aviation Services Annex, EMER-3010M"</p> <p>64. "Aviation Services Annex, EMER-3010M"</p> <p>65. "Aviation Services Annex, EMER-3010M"</p> <p>66. "Aviation Services Annex, EMER-3010M"</p> <p>67. "Aviation Services Annex, EMER-3010M"</p> <p>68. "Aviation Services Annex, EMER-3010M"</p> <p>69. "Aviation Services Annex, EMER-3010M"</p> <p>70. "Aviation Services Annex, EMER-3010M"</p> <p>71. "Aviation Services Annex, EMER-3010M"</p> <p>72. "Aviation Services Annex, EMER-3010M"</p> <p>73. "Aviation Services Annex, EMER-3010M"</p> <p>74. "Aviation Services Annex, EMER-3010M"</p> <p>75. "Aviation Services Annex, EMER-3010M"</p> <p>76. "Aviation Services Annex, EMER-3010M"</p> <p>77. "Aviation Services Annex, EMER-3010M"</p> <p>78. "Aviation Services Annex, EMER-3010M"</p> <p>79. "Aviation Services Annex, EMER-3010M"</p> <p>80. "Aviation Services Annex, EMER-3010M"</p> <p>81. "Aviation Services Annex, EMER-3010M"</p> <p>82. "Aviation Services Annex, EMER-3010M"</p> <p>83. "Aviation Services Annex, EMER-3010M"</p> <p>84. "Aviation Services Annex, EMER-3010M"</p> <p>85. "Aviation Services Annex, EMER-3010M"</p> <p>86. "Aviation Services Annex, EMER-3010M"</p> <p>87. "Aviation Services Annex, EMER-3010M"</p> <p>88. "Aviation Services Annex, EMER-3010M"</p> <p>89. "Aviation Services Annex, EMER-3010M"</p> <p>90. "Aviation Services Annex, EMER-3010M"</p> <p>91. "Aviation Services Annex, EMER-3010M"</p> <p>92. "Aviation Services Annex, EMER-3010M"</p> <p>93. "Aviation Services Annex, EMER-3010M"</p> <p>94. "Aviation Services Annex, EMER-3010M"</p> <p>95. "Aviation Services Annex, EMER-3010M"</p> <p>96. "Aviation Services Annex, EMER-3010M"</p> <p>97. "Aviation Services Annex, EMER-3010M"</p> <p>98. "Aviation Services Annex, EMER-3010M"</p> <p>99. "Aviation Services Annex, EMER-3010M"</p> <p>100. "Aviation Services Annex, EMER-3010M"</p>	Cole Lang	4/21/2023	4/26/2023	4/26/2023	0	NA	8.4.1.1	Emergency Preparedness	Objectives
216	OES	003	OES_003	2	OES_003_O2	<p>Regarding Emergency Preparedness Plans Beyond Stated Objectives</p> <p>On page 624, PG&E states that there are "current plans for wildfire-related activities beyond the objectives in Table B-33 and Table B-34."</p> <p>1. List and describe the "plans" beyond the objectives.</p> <p>2. Explain why you have beyond the objectives are not presented as WMP Table B-33 and B-34.</p>	Cole Lang	4/21/2023	4/26/2023	4/26/2023	0	NA	8.4.1.1	Emergency Preparedness	Objectives
217	OES	003	OES_003	3	OES_003_O3	<p>Regarding After Action Reports</p> <p>6. Provide After Action Reports (or similar post-event reports) for all wildfire-related emergencies in 2021 and 2022.</p> <p>7. Does PG&E have internal After Action Reports (or similar post-event reports) for both actual and potential PSPS events that differ from reports filed with the CPUC? If so, provide these internal reports for events in 2021 and 2022.</p>	Cole Lang	4/21/2023	4/26/2023	4/26/2023	4	NA	8.4	Emergency Preparedness	NA

218	OEIS	003	OEIS_003_04	4	OEIS_003_04	Regarding Support for Medical Baseline Customers a. How does PG&E support Medical Baseline (MBL) customers during wildfire emergencies?	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_public/communications/mbc-support-during-wildfire-emergencies https://www.pge.com/page_public/communications/mbc-support-during-wildfire-emergencies https://www.pge.com/page_public/communications/mbc-support-during-wildfire-emergencies	0	NA	8.4.6	Emergency Preparedness	Customer Support in Wildfire and PPSR Emergencies
219	OEIS	003	OEIS_003_05	5	OEIS_003_05	Regarding Emergency Operations Customer Surveys a. Provide an example of each customer survey sent in 2021 and 2022 regarding emergency operations and any reports analyzing those surveys' results.	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_public/communications/emergency-operations-surveys https://www.pge.com/page_public/communications/emergency-operations-surveys https://www.pge.com/page_public/communications/emergency-operations-surveys	1	NA	8.4.4	Emergency Preparedness	Public Emergency Communication Strategy
220	OEIS	003	OEIS_003_06	6	OEIS_003_06	Regarding PG&E's Areas of Concern a. Provide a GIS layer of PG&E's Areas of Concern (AOC) with the following attributes for each AOC polygon: 1. Name of AOC 2. Number of overhead circuit miles in the AOC that are in scope for Focused Tree Inspections 3. Cumulative probability of ignition caused by vegetation coupled with consequence of ignition as given by WDRM (v) (where v = 0) 4. Average probability of ignition caused by vegetation coupled with consequence of ignition as given by WDRM (v) (where v = 0) b. Cumulative Overall Tally Risk as defined by the 2023-2025 WMP Technical Guidelines, Appendix B c. Cumulative Ignition Risk as defined by the 2023-2025 WMP Technical Guidelines, Appendix B d. Cumulative PPSR Risk as defined by the 2023-2025 WMP Technical Guidelines, Appendix B e. Cumulative Contact from Vegetation (based on ignition as defined by the 2023-2025 WMP Technical Guidelines, Appendix B) f. Has PG&E used any vegetation-related data sources to identify the density/percentage of nonnative trees to create the AOC? (e.g., LIDAR, satellite) If so, list the data source(s) and the date the data were collected. (e.g., distribution LIDAR from PG&E in 2019) g. Has PG&E used any tree mortality data sets to create the AOC? If so, list the data set(s) and the date the data were collected. h. Determine the prioritization of inspection among the AOC? If so, list the data set(s) and the date the data were collected. i. Yes, PG&E utilized the Second Patrol VM review of tree mortality populations at a divisional level in October 2022. The development team was expected to have strong local knowledge of regional tree mortality trends and utilize that knowledge to develop AOC polygons. j. Yes, as part of normal practice, we considered enhancing the TAT by incorporating additional elements of the ISA Form in 2022. k. At the time, the TRAQ form and not be digitized for the Focused Tree Inspection Program (FTI). It is the current plan that FTI inspections will be performed by 100% TRAQ certified inspectors and the TRAQ form will be used as a guide. l. We will utilize the TRAQ form for tree risk assessments which considers local weather patterns. Inspection will also be informed by historical vegetation caused outage trends within the area of concern. m. Yes, we did informally compare the outcomes of the TAT and the ISA form. The comparison included a field testing of a sample of locations and trees for validation purposes. The study and analysis effort was not finalized. n. As part of the TAT improvement efforts in 2022, our subject matter experts met on a recurring basis with counterparts from SCE and SOG&E to share experiences, methodology and other ideas regarding hazard tree assessment. o. Please see below for Logic and Methodology of the TAT that was last used by the EMV program and the program closed at the end of 2022. Please see attachment "WMP-Discovery2023_DR_OEIS_003-0006A0020.pdf" for the white paper describing the basis for the development of the TAT as well as the capabilities and data sources. The Primary Data Assessment is a question and results of the TAT are on file and are listed below. If the result is "No", the tree will be removed. 1. Tree will be removed if: 1. Yes 2. No - STOP TAT, TAT NOT REQUIRED 3. No - tree already removed- ABATE 4. Is the tree completely blocked from falling towards facilities? Some trees are tall enough to strike, but cannot because the path is blocked. CONSIDER that other trees can reduce the likelihood of a tree falling toward facilities, but only in extreme cases to the: completely and reliably block the path to facilities 1. Yes- DO NOT ABATE. 2. No 3. Is the tree leaning severely (>25 degrees)? 1. No 2. Toward Facilities- ABATE 3. Away from Facilities- DO NOT ABATE 4. Parallel to Facilities 5. Near Buildings The confidential material is being provided pursuant to the accompanying confidentiality declaration. Please see requested attachments: i. WMP-Discovery2023_DR_California_003-0001.pdf ii. WMP-Discovery2023_DR_California_003-0002.pdf iii. WMP-Discovery2023_DR_California_003-0003.pdf iv. WMP-Discovery2023_DR_California_003-0004.pdf v. WMP-Discovery2023_DR_California_003-0005.pdf vi. WMP-Discovery2023_DR_California_003-0006.pdf vii. WMP-Discovery2023_DR_California_003-0007.pdf viii. WMP-Discovery2023_DR_California_003-0008.pdf ix. WMP-Discovery2023_DR_California_003-0009.pdf x. WMP-Discovery2023_DR_California_003-0010.pdf xi. WMP-Discovery2023_DR_California_003-0011.pdf xii. WMP-Discovery2023_DR_California_003-0012.pdf xiii. WMP-Discovery2023_DR_California_003-0013.pdf xiv. WMP-Discovery2023_DR_California_003-0014.pdf xv. WMP-Discovery2023_DR_California_003-0015.pdf xvi. WMP-Discovery2023_DR_California_003-0016.pdf	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_public/communications/vegetation-management https://www.pge.com/page_public/communications/vegetation-management https://www.pge.com/page_public/communications/vegetation-management	3	NA	8.2	Vegetation Management and Inspections	NA
221	OEIS	003	OEIS_003_07	7	OEIS_003_07	Regarding Focused Tree Inspections a. During the decision process to discontinue use of the Tree Assessment Tool (TAT) and adopt the ISA Basic Tree Risk Assessment Form (ISA Form), did PG&E consider incorporating elements from the ISA Form into the TAT? b. Is PG&E collecting a digital record of each ISA Form prepared by inspectors, or O&M or another system? c. How does PG&E plan to incorporate known localized risk factors (e.g., wind, outage rates by species) into tree risk assessment? d. Did PG&E perform any analysis or study that compared the outcomes of the TAT and the ISA checklist to the field? If so, provide the analysis or study. e. Has PG&E benchmarked and/or discussed the latest version of TAT and the associated risk assessment procedure and the new tree risk assessment procedure using the ISA checklist with other utilities, including but not limited to SCE and the Tree Risk Calculator? If so, provide a summary of that benchmarking/discussion. f. Provide the logic and any documentation of methodologies, capabilities, and data sources for the most recent version of the TAT. Include a list of the factors considered in TAT scoring methodology.	Colin Lang	4/21/2023	4/27/2023	4/27/2023	https://www.pge.com/page_public/communications/vegetation-management https://www.pge.com/page_public/communications/vegetation-management https://www.pge.com/page_public/communications/vegetation-management	1	NA	8.2	Vegetation Management and Inspections	NA
222	OEIS	003	OEIS_003_08	8	OEIS_003_08	Regarding Confidential Stakeholder Data Requests a. Provide PG&E's confidential responses and attachments to the following Data Requests: i. WMP-Discovery2023_California_003-0001 ii. WMP-Discovery2023_California_003-0002 iii. WMP-Discovery2023_California_003-0003 iv. WMP-Discovery2023_California_003-0004 v. WMP-Discovery2023_California_003-0005 vi. WMP-Discovery2023_California_003-0006 vii. WMP-Discovery2023_California_003-0007 viii. WMP-Discovery2023_California_003-0008 ix. WMP-Discovery2023_California_003-0009 x. WMP-Discovery2023_California_003-0010 xi. WMP-Discovery2023_California_003-0011 xii. WMP-Discovery2023_California_003-0012 xiii. WMP-Discovery2023_California_003-0013 xiv. WMP-Discovery2023_California_003-0014 xv. WMP-Discovery2023_California_003-0015 xvi. WMP-Discovery2023_California_003-0016	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_public/communications/vegetation-management https://www.pge.com/page_public/communications/vegetation-management https://www.pge.com/page_public/communications/vegetation-management	0	NA	7	Wildfire Mitigation Strategy Development	NA
223	OEIS	003	OEIS_003_09	9	OEIS_003_09	Regarding PG&E's Asset Inspection Program a. Provide the inspection checklist used for both PG&E's patrols and detailed inspections. b. If PG&E utilizes its inspections specifically to inspect wildfire risk specific items, identify which items within the checklist the applies to, particularly if such differs from standard O&M inspections. c. On average, how many detailed inspections are completed by inspectors per day?	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_public/communications/asset-inspection https://www.pge.com/page_public/communications/asset-inspection https://www.pge.com/page_public/communications/asset-inspection	5	NA	8.1.3	Asset Inspections	NA

224	OEIS	003	OEIS_003	10	OEIS_003_010	<p>As outlined in Section 8.1.1 Asset Management and Inspection Enterprise</p> <p>Response to POAEE 2023-0022 WMP, POAEE uses several asset inventory databases. Geographic Information System (GIS) is the primary system of record for electric asset inventory (Asset Registry), spatial location, electrical connectivity, and attribute data. Asset Registry data is generally stored in GIS databases that are specific to Electric Distribution and Electric Transmission, as known as Electric Distribution Geographic Information System (EDGIS), and Electric Transmission Geographic Information System (ETGIS). The asset member attributes captured as fields in the Asset Registry systems vary by asset type. Not all fields are considered critical or mandatory.</p> <p>In Q4 of 2021, POAEE initiated an Asset Registry Data Quality (ARQD) program with the objective of identifying all Critical Data Elements (CDEs), generally aligned with attributes for the asset types that are managed in the Asset Registry systems. The initial focus of the ARQD program was in support of the Transmission Overhead and Distribution Overhead assets that represent approximately 80% of asset types. The ARQD program has been expanded to include all asset types and includes a list of the 869 Critical Data Elements (CDEs) that have been identified and are being tracked as of May 9, 2023 under the ARQD Program, organized by Asset Family, Asset Type, Asset Component, and Asset Class (CDE). Column 1 indicates alignment with Energy WMP-Discovery2_DR_OEIS_003-G010 Page 2</p> <p>Table 03 (Asset Inventory Data Report) is applicable, and Column 1 identifies if there is a mapping to an attribute in the OEIS GIS reports. Please see the response to question 2023-0022 for more information on the collection of all Electric asset inventory attributes. We would be happy to meet and confer to better understand the request and timing.</p> <p>b. POAEE currently manages the following primary equipment types (asset types) within its Electric asset inventory (Asset Registry) systems. Please note that there may be multiple sub-types (sub-components) under any one primary Asset Type. The asset types highlighted in AMBERS are included in the ARQD program and represented in the data tables provided in response to questions a and c. Asset Family Asset Type (Equipment Type)</p> <p>Substation, Network Network Protection</p>	Colo Lang	4/21/2023	5/10/2023	5/10/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	2	NA	8.1.5	Asset Management and Inspection Enterprise System(s)	NA
225	OEIS	003	OEIS_003	11	OEIS_003_011	<p>Regarding POAEE's Response to PHMP_2023-POAEE-002-207</p> <p>a. POAEE states that a Critical Attribute is defined as "a condition that could lead to either an ignition point or wire down situation that could result in a potential fire ignition." Provide all supporting documentation for procedures POAEE uses to determine whether something is a Critical Attribute. If such procedures do not exist, POAEE must provide the following:</p> <p>1. A description of POAEE's process for how it determines what qualifies as a Critical Attribute.</p> <p>2. A list of criteria POAEE uses to qualify an asset as a Critical Attribute.</p> <p>3. What does POAEE mean by "as defined by Asset Strategy?"</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	0	NA	Appendix D	Areas for Continued Improvement	ACI POAEE-22-21 Asset Inspection Quality Assurance and Quality Control ACI POAEE-22-08 Better Application of Specific Lessons Learned from Utility-Caused Fires
226	OEIS	003	OEIS_003	12	OEIS_003_012	<p>Regarding POAEE's Response to PHMP_2023-POAEE-002-209</p> <p>a. POAEE states that it is still performing targeted equipment repairs relating to EPSS. In the a program separate from that described within Section 8.1.7 of its WMP if it, provide the following:</p> <p>1. Description and procedures in which POAEE uses to decide when and where it will perform EPSS-related targeted equipment repairs.</p> <p>2. How POAEE responds to address failed EPSS-related targeted equipment repairs (particularly in relation to the program described in Section 8.1.7).</p> <p>3. The scale of such EPSS-related targeted equipment repairs (i.e. number of work orders, number of CPDs included in this program).</p> <p>4. In the attachment "WMP-Discovery2_DR_OEIS_003-G008b0202 and" targeted equipment repairs are not included as part of the additional mitigations being completed. Why were those not included if POAEE is still using this material?</p> <p>5. Provide a GIS file with the locations of CPDs subject to additional reliability mitigations based on EPSS impacts.</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	1	NA	Appendix D	Areas for Continued Improvement	ACI POAEE-22-21 Update on EPSS Reliability Study
227	OEIS	003	OEIS_003	13	OEIS_003_013	<p>Regarding POAEE's Response to PHMP_2023-POAEE-002-208</p> <p>a. Provide an Enhanced Ignition Analysis (EIA) reports completed for instances in which the qualifier was an EPSS protected facility.</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	1	NA	Appendix D	Areas for Continued Improvement	ACI POAEE-22-08 Better Application of Specific Lessons Learned from Utility-Caused Fires
228	OEIS	003	OEIS_003	14	OEIS_003_014	<p>Regarding POAEE's Fault Rerouter Replacements</p> <p>a. Provide the numbers of fault rerouters POAEE has replaced by year since 2020.</p> <p>b. Provide POAEE's targets for fault rerouter replacements in 2023 and 2024, as applicable.</p> <p>c. Provide the number of fault rerouter devices within POAEE's HTD.</p> <p>d. Provide the number of fault rerouter devices as needed replacement within POAEE's HTD.</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	0	NA	NA	NA	NA
229	OEIS	003	OEIS_003	15	OEIS_003_015	<p>Regarding POAEE's V4 of its Wireline Distribution Risk Model (WDRM)</p> <p>a. What is POAEE's status for review and approval of V4?</p> <p>b. When does POAEE intend to use V4 and to influence its underground plan? Include comparison on details of how the model affects POAEE's underground plan.</p> <p>c. Provide a list of the differences and improvements being made to V4 in comparison to V3.</p> <p>d. Is V4 undergoing third-party review for V4 and V3? If so, provide a status update on the review, including expected completion date for the related report.</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	0	NA	6.2.1	Risk Methodology and Assessment	Risk and Risk Component Identification
230	OEIS	003	OEIS_003	16	OEIS_003_016	<p>Regarding POAEE's response to OEIS Data Request 2 Question 5 Attachment 1</p> <p>a. How did POAEE determine a mitigation effectiveness of 11.8% for down conductor detection (DCD)?</p> <p>b. In Table 8.4, POAEE has indicated 2023, 2024 and 2025 targets for DCD. Additionally, in response to Callout/Notes Data Request 10 Question 1, POAEE states that 21,000 miles will be covered by DCD in 2023. However, within the attachment, POAEE only enumerates goals of approximately 27.3k, 1.4k, and 0 miles in 2023, 2024, and 2025 respectively. Explain this discrepancy.</p> <p>c. Include the number of miles DCD covered in 2022, as well as how many additional miles will be covered based on POAEE's targets for 2023, 2024, and 2025 broken down by year.</p> <p>d. How did POAEE determine a mitigation effectiveness of 65% for EPSS?</p> <p>e. Why is partial voltage detection (PVD) not included within POAEE's mitigations within the attachment? If it were, what would the mitigation effectiveness be for including PVD?</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	0	NA	8.1.2.10	Grid Design and System Hardening	Downed Conductor Detection Devices
231	OEIS	003	OEIS_003	17	OEIS_003_017	<p>Regarding undrafted items in 8.4.8</p> <p>POAEE discusses "red tagger" customers, "inverter" communities, and "impactor" customers (including cities, counties, and tribal governments) in Section 8.4.6; however, definitions of such terms are not provided.</p> <p>a. Provide a definition, as it pertains to both wildfire and PSPS events in the context of Section 8.4.6, and the criteria for these groups being identified as such.</p> <p>b. "Red tagger" customers</p> <p>c. "Inverter" communities</p> <p>d. "Impactor" customers</p>	Colo Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report https://www.pge.com/page_pgeba/communications/asset-inventory-data-quality-report	0	NA	8.4.6	Emergency Preparedness	Customer Support in Wildfire and PSPS Emergencies

232	CAFA	Set WMP-17	CAFA_Set WMP-17	1	CAFA_Set WMP-17_01	<p>~BEGIN CONFIDENTIAL~</p> <p>Table 1 - Projects not pursued for Undergrounding in first 2100 miles</p> <p>POSE WORM V3 (risk critical protection zones (CPZ) based on risk measured against 17 risk models to create a "suitability risk score" for each CPZ in Table 1 above, selected CPZs that POSE has decided not to pursue Undergrounding in its first 2100 miles of UG projects are compared by:</p> <ul style="list-style-type: none"> - Cumulative risk score for the CPZ in WORM V3 - Total CPZ length in miles measured by projecting the feature class in WORM V3 to a UTM projection and calculating geometry in GIS - A calculated "risk per mile" or "average risk" value derived from the two previous values - Whether the CPZ has experienced outages due to PSPS or EPSS in the past three years - POSE 2023 WMP's decision to which program the CPZ belongs (crossed referenced against Question 8 on POSE-2023WMP-04_VM_Infrastructure_Sit_questions for projects in the 2023-2026 timeframe) - POSE 2023 WMP's risk rank for each CPZ (crossed referenced against Question 8 on "POSE-2023WMP-04_VM_Infrastructure_Sit_questions" for projects in the 2023-2026 timeframe) - POSE 2023 WMP's Willingness to Accept Risk (WAF) score for each CPZ (crossed referenced against Question 19 on "POSE-2023WMP-04_VM_Infrastructure_Sit_questions" for projects in the 2023-2026 timeframe) - POSE 2023 WMP's Willingness to Accept Risk (WAF) score for each CPZ (crossed referenced against Question 19 on "POSE-2023WMP-04_VM_Infrastructure_Sit_questions" for projects in the 2023-2026 timeframe) <p>Please explain why these selected CPZs in Table 1, with large average risk profiles in WORM V3 and some with relatively concerns from PSPS or EPSS outages, are not being considered potential projects for Undergrounding in the first 2,100 miles.</p> <p>1. Please identify all factors in the selection of CPZ 1E1 DOARDD PH 21019752* for "BASE SH" (base system-hardening) other than Undergrounding in POSE's 2023 WMP project selection.</p> <p>2. Please identify all factors in the selection of CPZ 1E1 DOARDD PH 21019752* for "BASE SH" (base system-hardening) other than Undergrounding in POSE's 2023 WMP project selection.</p> <p>3. Please identify all factors that resulted in CPZ 1E1 DOARDD PH 21019752* not being selected for any WMP system hardening program (including Base SH, Community Resilience, Fire Retard, Fire Resilience, Targeted UG, etc.)</p> <p>4. Please identify all factors that resulted in CPZ 1E1 DOARDD PH 21019752* not being selected for any WMP system hardening program (including Base SH, Community Resilience, Fire Retard, Fire Resilience, Targeted UG, etc.)</p> <p>5. Please identify all factors that resulted in CPZ 1E1 DOARDD PH 21019752* not being selected for any WMP system hardening program (including Base SH, Community Resilience, Fire Retard, Fire Resilience, Targeted UG, etc.)</p> <p>6. Please identify all factors that resulted in CPZ 1E1 DOARDD PH 21019752* not being selected for any WMP system hardening program (including Base SH, Community Resilience, Fire Retard, Fire Resilience, Targeted UG, etc.)</p>	<p>Upon review, POSE respectfully finds that the CPZ mitigations presented in Table 1 are incorrect. As a result of the message errors in the Table, the Calculated Risk/Risk/Risk figures are incorrect as well. The also note that we do not use the term "cumulative risk" in this question and interpret the question as involving "composite risk" scores. Any difference between these two terms is not our response.</p> <p>The information used to develop the quoted miles from this analysis, WMP-Discovery22_DR_Calculates_GIS, does not represent the total CH miles contained within each circuit segment, but the total projected UG miles from the circuit segment. These "totals" can include multiple circuit segments and represent the UG miles planned to be installed. The total CH miles removed used to calculate the risk value. Each of these segments were bundled with other high-risk segments and brought forward to be worked concurrently. The bundling of multiple circuit segments was done for effectiveness and will provide a larger benefit in terms of reduced PSPS and EPSS impacts as well. Therefore, the "totals" presented in this question are not intended to be used to compare risk profiles between circuit segments. The bundled project (which includes multiple circuit segments) is not comparing a consistent number and denominator. The 2100 miles of UG miles removed used to calculate the risk value. Each of these segments were bundled with other high-risk segments and brought forward to be worked concurrently. The bundling of multiple circuit segments was done for effectiveness and will provide a larger benefit in terms of reduced PSPS/EPSS impacts as well. Therefore, the metrics presented here in terms of risk points for a single circuit segment do not represent the total risk value for the entire project. For the available miles to be scored leveraging V3, we utilized a selection strategy to include underground efforts and cost efficiency measures such as bundling to facilitate improved asset, execution timelines, and a balance of work.</p> <p>The following is a list of some specific reasons why each circuit segment referenced in this question was not included in the 2,100 mile workplan including:</p> <ul style="list-style-type: none"> - Circuit segments: Chatham 11031940, Bear Valley 21050CB, Kaweah 1101972, Phenix 17019000, Columbia Hill 1101CB, and Apple Hill 210272 had a lower Willingness to Accept Risk (WAF) score due to expected high undergrounding efficiency and/or bundling with nearby segments, are other locations with higher WAF scores to prioritize in the earlier years. - In addition, Apple Hill 210272 was not included due to concerns with outages with higher WAF scores previously already planned in our first tranche on this same circuit. - S Dorado PH 21019752 is already included with some undergrounding along Sky Park Rd. The fact that a portion of the circuit is already undergrounded is not considered for the WORM V3 risk model as a general rule of GIS modeling. We are selecting locations in 2022 and 2023 based on the Willingness to Accept Risk (WAF) analysis, which leverages WORM V3 risk data, to prioritize for project selection. As part of the WAF analysis, for operational efficiency, individual Circuit Protection Zones (CPZ) were bundled together for project selection and design. - Once bundled together with adjacent CPZs that are also identified for targeted undergrounding, the combined bundled WFE score is used to select projects. In that process, it is possible that an individual CPZ with a larger average risk profile, is combined with another adjacent CPZ within the 10-year undergrounding plan scope that may result in a lower combined WFE score that drives the bundled project to be lower than other projects that are selected for project development. - We believe this CPZ bundling approach is appropriate not only to improve field operational efficiency but also because bundling adjacent CPZs: <ul style="list-style-type: none"> - Provides continuity with other projects to eliminate re-work, temporary facilities, and allows for a more complete design solution. - Allows for near-term PSPS and EPSS benefits by bundling nearby segments together. <p>CONFIDENTIAL - Provided Pursuant to Confidentiality Declaration ("WMP-Discovery22_DR_Calculates_GIS") WMP-Discovery22_DR_Calculates_GIS was developed as proposed to multiple projects being developed and worked on separate timelines.</p> <p>Lately, our workplan as presented in the 2023 WMP was developed using numerous factors that could cause a particular circuit segment to be included in the 2023 WMP workplan including:</p> <ol style="list-style-type: none"> Due to the typically long timeframe required to develop and construct an underground project, 2023 WORM V3 risk data via the WFE only initially informed the early years in the 2023-2026 workplan, with much of the portfolio being informed by 2021 WORM V3. There continues to be carry over work from previous workplans that must be completed. If a project had been selected in a prior period it will be worked to completion. The WFE selection strategy utilizing WORM V3 takes various cost and schedule optimization inputs into its selection methodology including: <ul style="list-style-type: none"> - Area saturation - Underground efficiency and long-term permitting risks - Circuit segment bundling - Resource readiness and availability - Previously hardened facilities 	Matthew Tait	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
233	CAFA	Set WMP-17	CAFA_Set WMP-17	2	CAFA_Set WMP-17_02	<p>~BEGIN CONFIDENTIAL~</p> <p>In general, identify all factors POSE considers when deciding that a CPZ with a large average risk profile or large total risk in WORM V3 should not be prioritized in POSE's 2023 WMP project selection.</p>	<p>CONFIDENTIAL - Provided Pursuant to Confidentiality Declaration ("WMP-Discovery22_DR_Calculates_GIS") WMP-Discovery22_DR_Calculates_GIS was developed as proposed to multiple projects being developed and worked on separate timelines.</p> <p>Lately, our workplan as presented in the 2023 WMP was developed using numerous factors that could cause a particular circuit segment to be included in the 2023 WMP workplan including:</p> <ol style="list-style-type: none"> Due to the typically long timeframe required to develop and construct an underground project, 2023 WORM V3 risk data via the WFE only initially informed the early years in the 2023-2026 workplan, with much of the portfolio being informed by 2021 WORM V3. There continues to be carry over work from previous workplans that must be completed. If a project had been selected in a prior period it will be worked to completion. The WFE selection strategy utilizing WORM V3 takes various cost and schedule optimization inputs into its selection methodology including: <ul style="list-style-type: none"> - Area saturation - Underground efficiency and long-term permitting risks - Circuit segment bundling - Resource readiness and availability - Previously hardened facilities 	Matthew Tait	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
234	CAFA	Set WMP-17	CAFA_Set WMP-17	3	CAFA_Set WMP-17_03	<p>~BEGIN CONFIDENTIAL~</p> <p>In Table 2 above, selected CPZs that POSE has decided to pursue Undergrounding in its first 2100 miles of UG projects are compared by:</p> <ul style="list-style-type: none"> - Cumulative risk score for the CPZ in WORM V3 - The total risk length of Undergrounding, which POSE queried for each UG project in Confidential response to Question 1 "WMP-Discovery22_DR_Calculates_GIS" - A calculated "risk per mile" or "average risk" value derived from the two previous values - Whether the CPZ has experienced outages due to PSPS or EPSS in the past three years - POSE 2023 WMP's decision to which program the CPZ belongs (crossed referenced against Question 8 on POSE-2023WMP-04_VM_Infrastructure_Sit_questions for projects in the 2023-2026 timeframe) - POSE 2023 WMP's risk rank for each CPZ (crossed referenced against Question 8 on "POSE-2023WMP-04_VM_Infrastructure_Sit_questions" for projects in the 2023-2026 timeframe) - POSE 2023 WMP's Willingness to Accept Risk (WAF) score for each CPZ (crossed referenced against Question 19 on "POSE-2023WMP-04_VM_Infrastructure_Sit_questions" for projects in the 2023-2026 timeframe) - POSE 2023 WMP's Willingness to Accept Risk (WAF) score for each CPZ (crossed referenced against Question 19 on "POSE-2023WMP-04_VM_Infrastructure_Sit_questions" for projects in the 2023-2026 timeframe) <p>Please explain why these selected CPZs in Table 2, with small total risk profiles and small average risk profiles in WORM V3, are being considered as potential projects for Undergrounding.</p> <p>1. Please provide reasons why POSE did not opt for alternative to underground CPZ 1NE GROVE 11021488* given the CPZ is comparable long with both a low average and small cumulative risk profile. "Alternative to underground" include other means by which to reduce risk such as use of Covered Conductors or a hybrid USGH approach</p> <p>2. Please provide reasons why POSE did not opt for alternative to underground CPZ STANSLAUB 17021888* given that the CPZ is comparable long with both a low average and small cumulative risk profile. "Alternative to underground" include other means by which to reduce risk such as use of Covered Conductors or a hybrid USGH approach</p> <p>3. Please identify all factors under consideration that resulted in priority given to CPZ STANSLAUB 17021888* with a cumulative risk score of 2.4 and distance to underground of 1.19 miles in POSE's 2023 WMP for mitigation over other CPZs such as "CUMARREST 11031047" with a cumulative risk score of 9.19 and distance to underground ~13 miles.</p> <p>4. "BEAR VALLEY 210202" with a cumulative risk score of 7.40 and distance to underground ~19 miles.</p> <p>5. "KESWICK 11019717" with a cumulative risk score of 0.28 and distance to underground ~21 miles.</p>	<p>As I have reviewed, we respectfully find that the CPZ mitigations presented in Table 2 are incorrect. As a result of the message errors in the Table, the Calculated Risk/Risk/Risk figures are incorrect as well. The also note that we do not use the term "cumulative risk" in this question and interpret the question as involving "composite risk" scores. Any difference between these two terms is not our response.</p> <p>The information used to develop the quoted miles from this analysis, WMP-Discovery22_DR_Calculates_GIS, does not represent the total CH miles contained within each circuit segment, but the total projected UG miles from the circuit segment. These "totals" can include multiple circuit segments and represent the UG miles planned to be installed. The total CH miles removed used to calculate the risk value. Each of these segments were bundled with other high-risk segments and brought forward to be worked concurrently. The bundling of multiple circuit segments was done for effectiveness and will provide a larger benefit in terms of reduced PSPS and EPSS impacts as well. Therefore, the metrics presented here in terms of risk points for a single circuit segment do not represent the total risk value for the entire project. For the available miles to be scored leveraging V3, we utilized a selection strategy to include underground efforts and cost efficiency measures such as bundling to facilitate improved asset, execution timelines, and a balance of work.</p> <p>The following is a list of some specific reasons why each circuit segment referenced in this question was not included in the 2,100 mile workplan including:</p> <ul style="list-style-type: none"> - Circuit segments: Apple Hill 210272 had a lower Willingness to Accept Risk (WAF) score due to expected high undergrounding efficiency and/or bundling with nearby segments, are other locations with higher WAF scores to prioritize in the earlier years. - In addition, Apple Hill 210272 was not included due to concerns with outages with higher WAF scores previously already planned in our first tranche on this same circuit. - S Dorado PH 21019752 is already included with some undergrounding along Sky Park Rd. The fact that a portion of the circuit is already undergrounded is not considered for the WORM V3 risk model as a general rule of GIS modeling. We are selecting locations in 2022 and 2023 based on the Willingness to Accept Risk (WAF) analysis, which leverages WORM V3 risk data, to prioritize for project selection. As part of the WFE analysis, for operational efficiency, individual Circuit Protection Zones (CPZ) were bundled together for project selection and design. - Once bundled together with adjacent CPZs that are also identified for targeted undergrounding, the combined bundled WFE score is used to select projects. In that process, it is possible that an individual CPZ with a larger average risk profile, is combined with another adjacent CPZ within the 10-year undergrounding plan scope that may result in a lower combined WFE score that drives the bundled project to be selected for project development. - We believe this CPZ bundling approach is appropriate not only to improve field operational efficiency but also because bundling adjacent CPZs: <ul style="list-style-type: none"> - Provides continuity with other projects to eliminate re-work, temporary facilities, and allows for a more complete design solution. - Allows for near-term PSPS and EPSS benefits by bundling nearby segments together. <p>CONFIDENTIAL - Provided Pursuant to Confidentiality Declaration ("WMP-Discovery22_DR_Calculates_GIS") WMP-Discovery22_DR_Calculates_GIS was developed as proposed to multiple projects being developed and worked on separate timelines.</p> <p>Lately, our workplan as presented in the 2023 WMP was developed using numerous factors that could cause a particular circuit segment to be included in the 2023 WMP workplan including:</p> <ol style="list-style-type: none"> Due to the typically long timeframe required to develop and construct an underground project, 2023 WORM V3 risk data via the WFE only initially informed the early years in the 2023-2026 workplan, with much of the portfolio being informed by 2021 WORM V3. There continues to be carry over work from previous workplans that must be completed. If a project had been selected in a prior period it will be worked to completion. The WFE selection strategy utilizing WORM V3 takes various cost and schedule optimization inputs into its selection methodology including: <ul style="list-style-type: none"> - Area saturation - Underground efficiency and long-term permitting risks - Circuit segment bundling - Resource readiness and availability - Previously hardened facilities 	Matthew Tait	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
235	CAFA	Set WMP-17	CAFA_Set WMP-17	4	CAFA_Set WMP-17_04	<p>~BEGIN CONFIDENTIAL~</p> <p>In general, identify all factors POSE considers when deciding that a CPZ with small total risk profiles and small average risk profiles in WORM V3 should be prioritized in POSE's 2023 WMP project selection.</p>	<p>CONFIDENTIAL - Provided Pursuant to Confidentiality Declaration ("WMP-Discovery22_DR_Calculates_GIS") WMP-Discovery22_DR_Calculates_GIS was developed as proposed to multiple projects being developed and worked on separate timelines.</p> <p>Lately, our workplan as presented in the 2023 WMP was developed using numerous factors that could cause a particular circuit segment to be included in the 2023 WMP workplan including:</p> <ol style="list-style-type: none"> Due to the typically long timeframe required to develop and construct an underground project, 2023 WORM V3 risk data via the WFE only initially informed the early years in the 2023-2026 workplan, with much of the portfolio being informed by 2021 WORM V3. There continues to be carry over work from previous workplans that must be completed. If a project had been selected in a prior period it will be worked to completion. The WFE selection strategy utilizing WORM V3 takes various cost and schedule optimization inputs into its selection methodology including: <ul style="list-style-type: none"> - Area saturation - Underground efficiency and long-term permitting risks - Circuit segment bundling - Resource readiness and availability - Previously hardened facilities 	Matthew Tait	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
236	TURN	006	TURN_006	1	TURN_006_01	<p>Regarding the System Hardening Decision Tree provided as Attachment 3 to the response to TURN data request 5.1, please define the following acronym used in the Decision Tree:</p> <ol style="list-style-type: none"> FSO FSO WDCP WDCP WDCP ESDP 	<p>A FSO = Public Safety Specialist. POSE team members with extensive, local wildlife operations experience.</p> <p>FSO = Field Safety Officer or Field Safety Officer (FSO) or other designations.</p> <p>WDCP = Field Safety Officer/Decision Meeting. Meeting to scope potential undergrounding project sites held in office as opposed to field.</p> <p>ESDP = Economic Analysis Software Program. Program used by POSE to evaluate project economics.</p> <p>WDCP = Wildlife Decision Committee. A group of POSE and Public Safety Specialist members who meet to review and coordinate wildlife decision making.</p> <p>WDCP = Wildlife Decision Committee. A group of POSE and Public Safety Specialist members who meet to review and coordinate wildlife decision making.</p> <p>WDCP = Wildlife Decision Committee. A group of POSE and Public Safety Specialist members who meet to review and coordinate wildlife decision making.</p> <p>WDCP = Wildlife Decision Committee. A group of POSE and Public Safety Specialist members who meet to review and coordinate wildlife decision making.</p> <p>WDCP = Wildlife Decision Committee. A group of POSE and Public Safety Specialist members who meet to review and coordinate wildlife decision making.</p>	Tom Long	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
237	TURN	006	TURN_006	2	TURN_006_02	<p>Regarding the System Hardening Decision Tree provided as Attachment 3 to the response to TURN data request 5.1 and discussed in that response:</p> <p>1. Does POSE intend to use this Decision Tree for future projects during the 2023-2025 period for selecting which system hardening mitigation to utilize or given location?</p> <p>2. If the answer to 1a "yes" is appropriate, please explain each and every circumstance under which a FSO may use the Decision Tree for future projects.</p>	<p>The System Hardening Decision Tree was used to scope base system hardening projects in the workplan from 2023-2025. Projects were selected using the WORM V3, version 2. Each of this work plan is appropriate for the UG program announcement in late 2023. This System Hardening Decision Tree is not and will not be used for newly issued work.</p>	Tom Long	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
238	TURN	006	TURN_006	3	TURN_006_03	<p>Regarding the System Hardening Decision Tree provided as Attachment 3 to the response to TURN data request 5.1 and discussed in that response:</p> <p>1. Please provide a time range in months for each of the "Year Phases" listed in the box in the lower left corner. How does POSE intend to use the words "short-term", "medium-term", and "long-term" in the Decision Tree?</p>	<p>Undergrounding Decision Tree - The WORM V3 model in this data is identifying the list of circuit segments where wildlife risk is the highest. This data is updated regularly on an annual basis.</p> <p>Undergrounding Decision Tree - The data in this report is identifying the projects that are eligible for undergrounding and new sites are identified in parallel, but require multiple rounds of the analysis and alternate between this data set 2-3 months, but the 1st decisions are identified within the new data. The decision tree is iterative, and having many more modifications to it, it can take 1-2 months following release of the risk data and alternate Circuit Design and System Hardening.</p> <p>Undergrounding Decision Tree - The data in this report is identifying the projects that are eligible for undergrounding and new sites are identified in parallel, but require multiple rounds of the analysis and alternate between this data set 2-3 months, but the 1st decisions are identified within the new data. The decision tree is iterative, and having many more modifications to it, it can take 1-2 months following release of the risk data and alternate Circuit Design and System Hardening.</p> <p>Undergrounding Decision Tree - The data in this report is identifying the projects that are eligible for undergrounding and new sites are identified in parallel, but require multiple rounds of the analysis and alternate between this data set 2-3 months, but the 1st decisions are identified within the new data. The decision tree is iterative, and having many more modifications to it, it can take 1-2 months following release of the risk data and alternate Circuit Design and System Hardening.</p> <p>Undergrounding Decision Tree - The data in this report is identifying the projects that are eligible for undergrounding and new sites are identified in parallel, but require multiple rounds of the analysis and alternate between this data set 2-3 months, but the 1st decisions are identified within the new data. The decision tree is iterative, and having many more modifications to it, it can take 1-2 months following release of the risk data and alternate Circuit Design and System Hardening.</p>	Tom Long	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/legal/globe/global/anonymous/submit/anonymous-pose-discovery22-dr-calculates-gis/	0	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution

239	TURN	006	TURN_006	4	TURN_006_04	<p>Regarding the Fire Retardant Decision Tree provided in Attachment 2 to the response to TURN data request 5 and provided as per response:</p> <p>a. Please define the following acronym used in the Decision Tree: PH, EASOP, OEC, DG, SG</p> <p>b. Please describe the following acronym used in the Decision Tree for future fire related projects during the 2023-2026 period for selecting which system hardening mitigation to use for a given location?</p> <p>c. Please describe the following acronym used in the Decision Tree for future fire related projects: please explain each and every circumstance under which PG&E intends to use the Decision Tree for future fire related projects.</p>	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%20Fire%20Retardant%20Decision%20Tree%20-%202023-2026%20-%2004.pdf	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
240	TURN	006	TURN_006	5	TURN_006_05	<p>Regarding the response to TURN data request 5-4, please explain the following terms used in the last paragraph of the response:</p> <p>a. Gray services</p> <p>b. "Breakaway" connectors</p> <p>c. "Breakaway" connectors</p>	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%20Fire%20Retardant%20Decision%20Tree%20-%202023-2026%20-%2005.pdf	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
241	TURN	006	TURN_006	6	TURN_006_06	<p>Regarding the response to TURN data request 5-6:</p> <p>a. Please explain what is meant by the word "topped" in the phrase: "Determining the poles that will be topped"?</p> <p>b. Please explain to offer a more robust approximation of the percentage of existing poles to be topped?</p> <p>c. Please explain to offer a more robust approximation of the percentage of existing poles to be topped?</p> <p>d. Please explain to offer a more robust approximation of the percentage of existing poles to be topped?</p> <p>e. Please explain to offer a more robust approximation of the percentage of existing poles to be topped?</p>	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%20Fire%20Retardant%20Decision%20Tree%20-%202023-2026%20-%2006.pdf	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
242	TURN	007	TURN_007	1	TURN_007_01	<p>1. Regarding the 2023-2026 Undergrounding Workplan referenced on page 910 of the WMP (R1) and provided in Excel format in response to TURN Data Request 2-4:</p> <p>a. Please explain how, if at all, either of the Simplified Wildlife Risk Spend Efficiency (SWRSE) and Wildlife Feasibility Efficiency (WFE) values discussed in 1.066 of the WMP (R1) were used in developing this workplan.</p> <p>b. Please explain what measures (PG&E) used to prioritize projects in this workplan and how such measures (PG&E) were used.</p> <p>c. Please add to the Excel spreadsheet columns showing the SWRSE and WFE for each actual circuit segment.</p> <p>d. Complete the Workplan with Table 7-2 of the WMP. Please explain how the HFTD miles in Table 7-2 for a given circuit segment relate to the Planned UG miles in Column V through AA of the Undergrounding Workplan. For example, the second highest risk actual circuit segment in Table 7-2, Borner Nook 110102B, is shown to have 17.60 HFTD miles, but the Undergrounding Workplan shows projects for 2023-2026 totaling only 0.81 miles. Please explain all the reasons why the miles in the Undergrounding Workplan would differ from the miles in Table 7-2 for a given circuit segment. Please also specifically explain for the Borner Nook 110101 circuit segment, why the planned undergrounding mileage only addresses a small portion of the mileage identified in Table 7-2.</p>	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2001.pdf	1	Yes	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
243	TURN	007	TURN_007	2	TURN_007_02	<p>Regarding Table 7-2 in the WMP:</p> <p>a. The WMP calculations from Table 7-2 of the WMP, please explain how the HFTD miles in Table 7-2 for a given circuit segment relate to the Planned UG miles in Column V through AA of the Undergrounding Workplan. For example, the second highest risk actual circuit segment in Table 7-2, Borner Nook 110102B, is shown to have 17.60 HFTD miles, but the Undergrounding Workplan shows projects for 2023-2026 totaling only 0.81 miles. Please explain all the reasons why the miles in the Undergrounding Workplan would differ from the miles in Table 7-2 for a given circuit segment. Please also specifically explain for the Borner Nook 110101 circuit segment, why the planned undergrounding mileage only addresses a small portion of the mileage identified in Table 7-2.</p> <p>b. Please explain how, if at all, either of the Simplified Wildlife Risk Spend Efficiency (SWRSE) and Wildlife Feasibility Efficiency (WFE) values discussed in 1.066 of the WMP (R1) were used in developing this workplan.</p> <p>c. Please explain what measures (PG&E) used to prioritize projects in this workplan and how such measures (PG&E) were used.</p> <p>d. Please add to the Excel spreadsheet columns showing the SWRSE and WFE for each actual circuit segment.</p> <p>e. Complete the Workplan with Table 7-2 of the WMP. Please explain how the HFTD miles in Table 7-2 for a given circuit segment relate to the Planned UG miles in Column V through AA of the Undergrounding Workplan. For example, the second highest risk actual circuit segment in Table 7-2, Borner Nook 110102B, is shown to have 17.60 HFTD miles, but the Undergrounding Workplan shows projects for 2023-2026 totaling only 0.81 miles. Please explain all the reasons why the miles in the Undergrounding Workplan would differ from the miles in Table 7-2 for a given circuit segment. Please also specifically explain for the Borner Nook 110101 circuit segment, why the planned undergrounding mileage only addresses a small portion of the mileage identified in Table 7-2.</p>	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2002.pdf	1	Yes	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
244	TURN	007	TURN_007	3	TURN_007_03	<p>Regarding the System Hardening Workplan provided as Attachment 1 to the response to TURN data request 2-2 (see Table 7-2 in the WMP):</p> <p>a. The first tab in this Excel workbook is named "SH Workplan_2023-2026_Conf", which suggests that this workbook is confidential. Please explain to whom this workbook was disclosed and when this 2023-2026 workplan was disclosed to the public for the period 2023-2026. Please provide the most up-to-date version of the workplan for the period 2023-2026. Indicate the date of the workplan that was provided.</p> <p>b. It appears that some of the circuit segments listed as high risk in Table 7-2 of the WMP in the 2023-2026 undergrounding workplan that referenced on page 910 of the WMP (R1), e.g., Indus 110438 and Borner Nook 110101 (only Borner Nook 110102 is shown), are not listed in this workplan. Please explain why this is the case.</p> <p>c. Are there discussions in the notes of the circuit segments between the workbooks, and Table 7-2 and the 2023-2026 Undergrounding Workplan that reference on page 910 of the WMP (R1), e.g., Indus 110438 and Borner Nook 110101 (only Borner Nook 110102 is shown), are not listed in this workplan. Please explain why this is the case.</p> <p>d. Are there discussions in the notes of the circuit segments between the workbooks, and Table 7-2 and the 2023-2026 Undergrounding Workplan that reference on page 910 of the WMP (R1), e.g., Indus 110438 and Borner Nook 110101 (only Borner Nook 110102 is shown), are not listed in this workplan. Please explain why this is the case.</p>	Tom Long	4/21/2023	4/27/2023	4/27/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2003.pdf	1	Yes	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
245	TURN	007	TURN_007	4	TURN_007_04	<p>Regarding Attachment 2023-03-27_POE_2023_WMP_R1_Section 6.4.2.4(040), which is referenced on page 910 of the WMP (R1):</p> <p>a. Please provide a version of this Excel workbook that includes the same information for all of PG&E's HFTD circuit segments, as an example of those segments for which PG&E has such information.</p> <p>b. If PG&E has comparable information for its identified HFTD segments, please provide that information.</p> <p>c. Has PG&E calculated RSEs at the circuit segment level for any of the various mitigations shown in this workbook? If so, which mitigations?</p> <p>d. Please show calculated RSEs, preferably as additional columns in the workbook(s) provided in response to "a" and "b".</p> <p>e. Please explain how these values were determined.</p> <p>f. Why are the values for 2023-2026 much lower than the values for 2022?</p> <p>g. Why do the values differ slightly between on- and off-FTD areas?</p> <p>h. Are the values shown the values that are being used PG&E's process for selecting among different wildfire mitigation techniques (e.g., undergrounding vs. covered conductors) for the listed circuit segments.</p>	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2004.pdf	0	NA	6.4.2	Risk Methodology and Assessment	Risk-Informed Prioritization
246	CI&PA	Set WMP-18	CI&PA_Set WMP-18	1	CI&PA_Set WMP-18_01	<p>PG&E states in response to Question 1(a) of California's POE-2023WMP-15:</p> <p>Investigation Management for Operational Mitigation (IOMM) will be grown/added to HFTD and HFRAs. There are instances where a circuit segment may exist in an off-FTD/HFRAs and IOMM would complete work on the whole circuit segment including the areas outside HFTD/HFRAs. Forecasted tree inspections are planned for HFTD areas in the plan developed for 2023.</p> <p>a. How does PG&E calculate RSEs at the circuit segment level to mean that Forecasted Tree Inspections will take place only in HFTD areas (and will not include the HFRAs, or IOMM WRI) in 2023?</p> <p>b. If Forecasted Tree Inspections take place outside of the HFTD after the year 2023?</p> <p>c. How does PG&E calculate RSEs at the circuit segment level to mean that Forecasted Tree Inspections will take place only in HFTD areas (and will not include the HFRAs, or IOMM WRI) in 2023?</p> <p>d. If Forecasted Tree Inspections take place outside of the HFTD after the year 2023?</p> <p>e. How does PG&E calculate RSEs at the circuit segment level to mean that Forecasted Tree Inspections will take place only in HFTD areas (and will not include the HFRAs, or IOMM WRI) in 2023?</p> <p>f. If Forecasted Tree Inspections take place outside of the HFTD after the year 2023?</p>	Holly Wehman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2005.pdf	0	NA	6.2.2.6	Vegetation Management and Inspections	Discarded Programs
247	CI&PA	Set WMP-18	CI&PA_Set WMP-18	2	CI&PA_Set WMP-18_02	<p>PG&E states in response to Question 3 of California's POE-2023WMP-15 that "PG&E intends to track work completed for work under IOMM/FTD/FTL using the OnVIM tool."</p> <p>a. Please provide the following regarding the OnVIM tool:</p> <p>i. How the tool works (i.e., what mechanisms or procedures it use to achieve outputs)</p> <p>ii. When the tool was developed</p> <p>iii) When PG&E was begun utilizing the tool.</p>	Holly Wehman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2006.pdf	0	NA	6.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
248	CI&PA	Set WMP-18	CI&PA_Set WMP-18	3	CI&PA_Set WMP-18_03	<p>PG&E states in response to Question 3(b) of California's POE-2023WMP-15: "WMP EPPS-established data sets used to determine both planned and forecast and identify CPDs within EPPS (W/ Outage tool and plan). Please explain what "planned work" referred to in the above instance."</p>	Holly Wehman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/gea/gea_public/Common/Files/Attachment%20-%202023-2026%20UG%20Workplan%20-%2007.pdf	0	NA	6.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory

249	CaPA	CaPA_Set WMP-18	CaPA_Set WMP-18	4	CaPA_Set WMP-18_04	<p>a) Nine years was selected as the starting point based on a realistically achievable average pace of approximately 33,000 trees removed per year (33,000 x 9 = 297,000) with the pace and duration of the program to be re-evaluated as needed based on the lessons learned from the initial years of the program. As of August 29, 2022, when the Tree Removal Inventory (TRI) program was being formalized, it was estimated that approximately 250,000 trees would be removed by the end of the calendar year 2022. The cost of the program is estimated at \$4,000 per tree based on a work prescription of removal were identified as needing re-inspection due to having Tree Assessment Tool (TAT) ratings below the "Acceptable" category. Due to the extent of clearance needed to achieve EMV overhead clearance requirements despite having no other significant deficits. Given that the re-inspection was likely to lower the population to some extent, the pace was set to complete approximately 257,000 trees. Additionally, over the course of one year all trees would still be inspected twice per year, once by the Routine annual inspection and once during the Second Patrol cycle, which would allow for mitigation of any trees with worsened conditions prior to the initiation of any grant grant segment into an annual TRF scope of work.</p> <p>b) Different durations were considered to complete the work, however, nine years was selected as the starting point. The pace may be adjusted based on the amount and composition of the work, and the success rate of consistent re-inspection.</p> <p>c) We do not currently intend for the Tree Inventory Program to continue for more than nine years.</p>	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	8.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
250	CaPA	Set WMP-18	CaPA_Set WMP-18	5	CaPA_Set WMP-18_05	<p>a) In response to question 193(i)(i) of CalAbates/PAGE-2023WMP-18, POAE states: The difference in projected vegetation management costs of \$2,481,000 between 2023 and 2024 is due to several factors, (1) reducing unit costs through efficiencies over the rate case period through targeted programmatic adjustments that refine processes and improve resource efficiency, (2) reducing the amount of Routine VM work conducted each year commensurate with the amount of undergirding miles completed, and (3) reducing unit costs through efficiencies over the rate case period through targeted programmatic adjustments that refine processes and improve resource efficiency.</p> <p>b) For each individual program identified in the quote above as mentioned in the quote above:</p> <p>i. Provide the following information about anticipated VM cost reductions from undergirding in the below table:</p> <p>Year</p> <p>Number of Undergirding Miles to be Completed</p> <p>Planned reduction in Number of Routine VM Miles</p> <p>Amount of Routine VM Cost Savings from Undergirding (BSE)</p> <p>2023</p> <p>2024</p> <p>2025</p> <p>2026</p> <p>2027</p> <p>2028</p> <p>2029</p> <p>2030</p> <p>See response above for 2023. See response above for 2024.</p> <p>2023: 652 Miles Planned for 2023</p> <p>2024: 652 Miles Planned for 2024</p> <p>2025: 652 Miles Planned for 2025</p> <p>2026: 652 Miles Planned for 2026</p> <p>2027: 652 Miles Planned for 2027</p> <p>2028: 652 Miles Planned for 2028</p> <p>2029: 652 Miles Planned for 2029</p> <p>2030: 652 Miles Planned for 2030</p> <p>See response above for 2023. See response above for 2024.</p>	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	8.2.5.2	Vegetation Management and Inspections	Quality Control
250	CaPA	Set WMP-18	CaPA_Set WMP-18	5 SUPP	CaPA_Set WMP-18_05 SUPP	<p>a) In response to question 193(i)(i) of CalAbates/PAGE-2023WMP-18, POAE states: The difference in projected vegetation management costs of \$2,481,000 between 2023 and 2024 is due to several factors, (1) reducing unit costs through efficiencies over the rate case period through targeted programmatic adjustments that refine processes and improve resource efficiency, (2) reducing the amount of Routine VM work conducted each year commensurate with the amount of undergirding miles completed, and (3) reducing unit costs through efficiencies over the rate case period through targeted programmatic adjustments that refine processes and improve resource efficiency.</p> <p>b) For each individual program identified in the quote above as mentioned in the quote above:</p> <p>i. Provide the following information about anticipated VM cost reductions from undergirding in the below table:</p> <p>Year</p> <p>Number of Undergirding Miles to be Completed</p> <p>Planned reduction in Number of Routine VM Miles</p> <p>Amount of Routine VM Cost Savings from Undergirding (BSE)</p> <p>2023</p> <p>2024</p> <p>2025</p> <p>2026</p> <p>2027</p> <p>2028</p> <p>2029</p> <p>2030</p> <p>See response above for 2023. See response above for 2024.</p> <p>2023: 652 Miles Planned for 2023</p> <p>2024: 652 Miles Planned for 2024</p> <p>2025: 652 Miles Planned for 2025</p> <p>2026: 652 Miles Planned for 2026</p> <p>2027: 652 Miles Planned for 2027</p> <p>2028: 652 Miles Planned for 2028</p> <p>2029: 652 Miles Planned for 2029</p> <p>2030: 652 Miles Planned for 2030</p> <p>See response above for 2023. See response above for 2024.</p>	Holly Wehrman	4/24/2023	4/28/2023	4/28/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	8.2.5.2	Vegetation Management and Inspections	Quality Control
251	CaPA	Set WMP-18	CaPA_Set WMP-18	6	CaPA_Set WMP-18_06	<p>a) POAE anticipates reducing costs on EMV Transitional, Routine, Tree Mortality, and VC pole clearing programs by 1) the EMV transitional programs and Vegetation Management for Operational Mitigation (VMOM), Tree Removal Inventory (TRI), and Focused Tree Inspections (FTI); 2) to maximize reduction of unit costs efficiently and effectively, the VM program conducted to 2022 the transitional programs will be incorporated into the 2023 workplan, we anticipate a significant decrease in VM spend due to this. As POAE continues the effort to streamlined distribution lines, we anticipate a reduction in costs related to this work, we are evaluating additional operational mitigations, including partial voltage detection, demand conductor detection, and transformer corner, each of which we anticipate further reduce the risk of catastrophic wildfires.</p> <p>b) We have been working with ISOE to identify opportunities to grow our internal inspection resources. We had approximately 150 internal resources in 2022 and have plans to hire an additional 150 resources in 2023, there is a steady increase in internal resources. We anticipate that this will create an internal team with the ability to efficiently inspect vegetation around POAE distribution and transmission lines. In 2023 we are consolidating from 24 separate work orders into 14 to build a stable and predictable workforce. We are also implementing controls for sub contracting and reorganized work and resources. This will provide a better experience for our customers by limiting project start and delivery times.</p> <p>c) For each individual program identified in the quote above as mentioned in the quote above:</p> <p>i. Provide the following information about anticipated VM cost reductions from undergirding in the below table:</p> <p>Year</p> <p>Number of Undergirding Miles to be Completed</p> <p>Planned reduction in Number of Routine VM Miles</p> <p>Amount of Routine VM Cost Savings from Undergirding (BSE)</p> <p>2023</p> <p>2024</p> <p>2025</p> <p>2026</p> <p>2027</p> <p>2028</p> <p>2029</p> <p>2030</p> <p>See response above for 2023. See response above for 2024.</p> <p>2023: 652 Miles Planned for 2023</p> <p>2024: 652 Miles Planned for 2024</p> <p>2025: 652 Miles Planned for 2025</p> <p>2026: 652 Miles Planned for 2026</p> <p>2027: 652 Miles Planned for 2027</p> <p>2028: 652 Miles Planned for 2028</p> <p>2029: 652 Miles Planned for 2029</p> <p>2030: 652 Miles Planned for 2030</p> <p>See response above for 2023. See response above for 2024.</p>	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	8.2.5.2	Vegetation Management and Inspections	Quality Control
252	CaPA	Set WMP-18	CaPA_Set WMP-18	7	CaPA_Set WMP-18_07	<p>Please provide the following information regarding actual and projected costs for each WMP initiative under Chapter 8.2 (Vegetation Management and Inspections). Each initiative should be a row in the table below.</p> <p>WMP Initiative Name</p> <p>2022 Capital Expenditure (Actual)</p> <p>2023 Capital Expenditure (Forecast)</p> <p>2024 Capital Expenditure (Forecast)</p> <p>2022 Operating Expense (Actual)</p> <p>2023 Operating Expense (Forecast)</p> <p>2024 Operating Expense (Forecast)</p>	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	8.2	Vegetation Management and Inspections	NA
253	TURN	008	TURN_008	1	TURN_008_01	<p>Our most recent calculation of RSEs for Undergirding is shared in our 2023 QRC Supplemental Filing from February 2022. The most granular level at which we calculated RSEs is at the branch level. This is summarized in attachment "WMP-Discovery2023_DR_TURN_008-000A0001". The RSE results are summarized in the RSE Results tab with the RSE scores 2023-2026 shown in cells H11:H11.</p> <p>Briefly, to more granular level assessments, WMP guidelines require risk reduction not RSE based on 2023-2025 workplans. These risk reduction values are provided in worksheet "2023-25_POE_2023_WMP_POE_Section 4.4" and provided with this response as "WMP-Discovery2023_DR_TURN_008-000A0002".</p>	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	2	NA	7.2	Wildfire Mitigation Strategy Development	Risk Impact of Mitigation Initiatives
254	TURN	008	TURN_008	2	TURN_008_02	<p>Our most recent calculation of RSEs for Covered Conductor is shared in our 2023 QRC Supplemental Filing in February 2022. The most granular level at which we calculated RSEs is at the branch level. This is summarized in attachment "WMP-Discovery2023_DR_TURN_008-000A0001". The RSE results are summarized in the RSE Results tab with the RSE scores 2023-2026 shown in cells H11:H11.</p> <p>Briefly, to more granular level assessments, WMP guidelines require risk reduction not RSE based on 2023-2025 workplans. These risk reduction values are provided in worksheet "2023-25_POE_2023_WMP_POE_Section 4.4" and provided with this response as "WMP-Discovery2023_DR_TURN_008-000A0002".</p>	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	7.2.2	Wildfire Mitigation Strategy Development	Risk Impact of Mitigation Initiatives
255	TURN	008	TURN_008	3	TURN_008_03	<p>Regarding the Undergirding Decision Tree provided in response to Data Request 6.1, Attachment 1, there is an error in the alternative responses to the question at the far right: "Will a road or project scope change mitigate implementation?" It appears that the "Yes" and "No" alternatives should be flipped. If there is an error, please provide a corrected Decision Tree.</p>	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	0	NA	8.1.2	Grid Design and System Handing	ALL
256	TURN	008	TURN_008	4	TURN_008_04	<p>The first paragraph of the response to TURN data request 5.4 states that, historically, POAE has observed more frequent ignitions and larger wildfires associated with the overhead primary distribution powerlines, compared to lower voltage secondary distribution lines, service connections and high voltage transmission lines.</p> <p>a. Please provide, in the Excel format, the data on which this statement was based, and provide an expansion of what POAE believes the data show.</p> <p>b. Please provide data, from 2015 to the present, allowing for each of primary distribution overhead lines, secondary distribution overhead lines, service connections, and high voltage transmission lines.</p> <p>1. Number of ignitions</p> <p>a. Number of ignitions normalized by mileage</p> <p>b. Size (e.g., acres) of fires resulting from ignitions, and</p> <p>c. Number of structures destroyed by fires resulting from ignitions.</p> <p>d. Number of structures destroyed by fires resulting from ignitions.</p> <p>2. Number of ignitions - See worksheet b.1.</p> <p>3. Number of ignitions normalized by mileage - See worksheet b.2.</p> <p>4. Size (e.g., acres) of fires resulting from ignitions - See worksheet b.3.</p> <p>5. Number of structures destroyed by fires resulting from ignitions - See worksheet b.4.</p>	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports https://www.sos.ca.gov/page/public-comment-reports	1	NA	8.1.2	Grid Design and System Handing	Undergirding of Electric Lines and/or Equipment - Distribution

266	CaPA	Set WMP-19	CaPA_Set WMP-19	8	CaPA_Set WMP-19_Q8	<p>a) "Ignition Risk" notifications are maintenance tags that have been determined to have some form of ignition risk as a result of the non-compliance identified on the tag (e.g., conductor or steel support steel deficiency). The used a combination of wildfire risk models to calculate the wildfire risk for such notification.</p> <p>Each notification contains one or multiple FSA (Facility-Derived-Action) codes) for documenting the associated issue. A team of subject matter experts from Asset Strategy, Wildfire Risk Management, and Standards/Work Methods reviewed each combination of FSA and translated them into the following categories:</p> <ul style="list-style-type: none"> No - No ignition risk. The FSA has no probability of ignition. Yes - Ignition risk, and that risk is associated with the risk model (example: Conductor composite model report structure equipment failure model, vegetation composite model). Then the associated wildfire risk score is calculated for the line based on the assigned risk model. Any notification with a greater than zero wildfire risk score is considered an ignition risk notification. <p>Each notification contains one or multiple FSA (Facility-Derived-Action) codes) for documenting the associated issue. A team of subject matter experts from Asset Strategy, Wildfire Risk Management, and Standards/Work Methods reviewed each combination of FSA and translated them into the following categories:</p> <ul style="list-style-type: none"> No - No ignition risk. The FSA has no probability of ignition. Yes - Ignition risk, and that risk is associated with the risk model (example: Conductor composite model report structure equipment failure model, vegetation composite model). Then the associated wildfire risk score is calculated for the line based on the assigned risk model. Any notification with a greater than zero wildfire risk score is considered an ignition risk notification. <p>If Yes, there are circumstances where a tag is a "non-ignition risk tag" and still poses other public safety hazards? If the answer to part (a) is yes, please list each such circumstance.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	8.1.7.2	Open Work Orders	Open Work Orders - Distribution Tags
267	CaPA	Set WMP-19	CaPA_Set WMP-19	9	CaPA_Set WMP-19_Q9	<p>a) We assess the need to position weather stations in canyons, but not specifically in response to this report. The external report did not provide specific guidance on canyons and other localized locations. Therefore, we continue to evaluate the need for additional weather stations during each year of the program and install weather stations where appropriate.</p> <p>b) Please see the response above. The siting of new weather station locations is a routine part of the program and not a unique assessment that can be provided.</p> <p>c) Yes. This is part of our routine program.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-10 - Justification of Weather Station Network Density
268	CaPA	Set WMP-19	CaPA_Set WMP-19	10	CaPA_Set WMP-19_Q10	<p>a) The statement referenced was to simply point out that the System Hardening Program is made up of a suite of mitigation options including Covered Conductor, Remote CRG, Removal, and Under-ground. The costs associated with the overhead hardware projects were bundled into similar categories for the full overhead hardening portion of our System Hardening program. There are no additional costs associated with overhead hardening that were included in Table 22-11.3.</p> <p>b) Not applicable.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-11 - Covered Conductor Effectiveness Lessons Learned
269	CaPA	Set WMP-19	CaPA_Set WMP-19	11	CaPA_Set WMP-19_Q11	<p>a) There is no threshold in SWRE that we use to determine that covered conductor is a more suitable mitigation than undergrounding. SWRE only provides values of undergrounding which have higher risk used offshore in wildfire work and compared to other locations and is used to select risks for undergrounding. Regarding the decision between covered conductor and undergrounding, the greatest consideration of the amount of risk reduction the mitigation provides is important. By undergrounding, the amount of residual risk is virtually removed, while covered conductor does not fully mitigate the risk.</p> <p>b) We are not currently a threshold of SWRE that we use to determine that undergrounding is a suitable mitigation. In these early stages of our assessment system, we are looking at undergrounding miles in the highest risk areas as defined in Section 8.1.2.2 of the 2023-2025 WMP, which include the high risk areas, and we are using SWRE as a tool to help us make decisions on where to use covered conductor. We are working with Public Safety Specialists.</p> <p>c) We are exploring the potential use of a threshold based on the cost benefit of the investment. The SWRE is one of the first steps in identifying risks for undergrounding. When we apply a location for the SWRE, we are also looking at the SWRE as part of a larger tool for undergrounding.</p> <p>d) SWRE is one of the first steps in identifying risks for undergrounding. When we apply a location for the SWRE, we are also looking at the SWRE as part of a larger tool for undergrounding. When we apply a location for the SWRE, we are also looking at the SWRE as part of a larger tool for undergrounding.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-14 - Review Process of Prioritizing Wildfire Mitigation
270	CaPA	Set WMP-19	CaPA_Set WMP-19	12	CaPA_Set WMP-19_Q12	<p>a) The delay was due to the job being intensively inspected using our legacy inspection system, which did not release inspection records until the inspection project was closed, enabling the downstream corrective action notifications to be created. In the legacy inspection system, inspection projects were created with a file volume of poles (generally between 200 and 450 poles) and the project was not closed until the entire pole volume was inspected. Due to access issues and other constraints, it was not unusual for projects to remain open for multiple months.</p> <p>b) We did not take any immediate action on this pole between November 18, 2019 and January 14, 2020.</p> <p>c) As discussed in subject (a), this was intensively inspected using our legacy inspection system, which did not release the inspection records until the inspection project was closed. As a result, our work management system was unable to track the progress of the corrective action notification creation. As it was not our intent to acknowledge the inspection date, we did not release the inspection records until the inspection project was closed.</p> <p>d) Based on our guidance documents, Priority E was appropriate at the time of the inspection and corrective action notification creation. As a result of this event investigation, we acknowledged a gap in assessing the intrusive inspection results and adding the present remaining strength to inform corrective action notification priority. We are actively reviewing the guidance documents and inspection application to improve our processes.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	8.1.3.2.3	Asset Inspections	Intrusive Pole Inspections
271	CaPA	Set WMP-19	CaPA_Set WMP-19	13	CaPA_Set WMP-19_Q13	<p>a) The confidential attachment is being provided pursuant to the accompanying confidentiality declaration.</p> <p>b) Please reference "WMP-Disclosure023_DR_California01-01A-0436410CONF.pdf" for our internal PG&E presentation from May 2022.</p> <p>c) Specifically, the references are found in Slide number 16. We adjust that "report to useful file" refers to projected average based on industry benchmarking information. Actual conditions of the assets based on their physical environment, weather conditions, inspection results, etc. may adjust that useful file. The percentage was provided above. As a high value, where we may need to focus on location or asset remaining effects.</p> <p>d) Please reference "WMP-Disclosure023_DR_California01-01A-0436410CONF.pdf" included as part (a) and (b).</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	1	NA	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening - Transmission Conductor and Distribution
272	CaPA	Set WMP-19	CaPA_Set WMP-19	14	CaPA_Set WMP-19_Q14	<p>a) We are still evaluating REFLC technology in the EPIC15 demonstration project including field testing and getting operational experience. We expect to have final results by the end of 2023. Decisions about further deployment of REFLC will be made after completion of the demonstration project with consideration for all wildfire risk mitigation available.</p> <p>b) Not applicable.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	8.1.8.1.3.1	Grid Design, Operations, and Maintenance	8.1.8.1.3.1 Rapid Earth Fault Current Limit
273	CaPA	Set WMP-19	CaPA_Set WMP-19	15	CaPA_Set WMP-19_Q15	<p>a) PG&E is actively analyzing the effectiveness of Covered Conductor (CC), in combination with EPSS and DDDPV. In addition, we are actively analyzing the effectiveness of Bare Conductor (BC), in combination with EPSS and DDDPV. PG&E is in the initial phase of these two studies and intends to use the results to compare the effectiveness of CC and BC.</p> <p>b) As noted in the response to subject a), we have not done this analysis previously, but it is underway. One reason that this analysis has not been completed to date is the evolution of our combined gridlines, 2022 was the first year of monosole application of EPSS, while DDDPV was in development and refinement phases in 2022, such that we were still developing the knowledge, experience, and data regarding how these tools would work to mitigate wildfire risk.</p> <p>c) We have recently (Q1 2023) begun performing this analysis. At this time, a completion date has not been confirmed but is anticipated to be completed in 2023.</p> <p>d) In alignment with the response to subject (a), we do not yet have results from an analysis or study as requested, so there are no reports, workbooks, or other work products at this time. We anticipate completing these two studies by the end of 2023. This analysis will also inform our filing of the SB884 10-Year Undergrounding Plan.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	8.1.2	Grid Design and System Hardening	Various
274	CaPA	Set WMP-19	CaPA_Set WMP-19	16	CaPA_Set WMP-19_Q16	<p>a) We have not performed a similar analysis of covered conductor (CC) with the same methodology as used in Table 7 (b) we applicable.</p> <p>b) We did not conduct a similar estimate of the combined effectiveness of covered conductor, asset inspections, and several VM programs because Figure 6, Table 6, and Table 7 in the Joint IOU Covered Conductor Working Group Report were preliminary work and some assessments of the values for Table 6 and Table 7 were resulted by the grid and utility for illustrative purposes only.</p> <p>c) As stated on pages 17 and 18 of the Alternatives section of the Joint IOU Covered Conductor Working Group Report, the framework in Figure 6 and Table 6 would need an alternative methodology of inspection management and inspections were separate from CC assets. Table 7 relies on data from Table 6 (page 19) and is a result of page 18 that some data were wrong. Our preliminary work on the effectiveness of the combined effectiveness of the CC and inspections was separate from CC assets. As such, we did not have the data to support the results for Table 6. Table 7 are also for illustrative purposes.</p> <p>d) As noted on page 17, "all utilities deploy CC and when CC is installed all utilities conduct vegetation management mitigations and asset inspection mitigations." After alignment across all utilities is reached on the preliminary framework for assessing alternative technologies, we will determine if a study is needed to estimate the effectiveness of the CC program separate from asset inspections and vegetation management programs.</p>	Holly Weisman	4/25/2023	4/28/2023	4/28/2023	0	NA	Appendix D	Area for Continued Improvement	ACI PG&E-22-11 - Covered Conductor Effectiveness Lessons Learned
275	CaPA	Set WMP-20	CaPA_Set WMP-20	1	CaPA_Set WMP-20_Q1	<p>a) Describe PG&E's standard process for retiring an asset from service.</p> <p>b) Describe how PG&E requires the retirement of an asset from service.</p>	Holly Weisman	4/26/2023	5/3/2023	5/3/2023	1	NA	8.1.5	Asset Management and Inspection Enterprise Systems	NA
276	CaPA	Set WMP-20	CaPA_Set WMP-20	2	CaPA_Set WMP-20_Q2	<p>a) In 2022, as part of a WMP system hardening activities, did PG&E retire from service (i.e., replace, remove, deenergize, or decommission) any assets that had not been fully operational at the time of retirement?</p> <p>b) Please describe how PG&E required the retirement of assets during 2022 system hardening activities?</p>	Holly Weisman	4/26/2023	5/3/2023	5/3/2023	0	NA	8.1.2	Grid Design and System Hardening	All

277	CAIPA	Set WMP-20	CAIPA_Set WMP-20	3	CAIPA_Set WMP-20_03	<p>a) In 2023, as part of its WMP system hardening activities, does PG&E intend to retire from service (i.e., replace, remove, destroy, or decommission) any assets that are not fully depreciated at the time of retirement?</p> <p>b) Please describe how PG&E will record the retirement of assets during 2023 system hardening activities.</p>	<p>Not applicable. The assets to be replaced as part of WMP system hardening activities in 2023 follow group depreciation and retirement accounting. As such, there is no unrecorded value of the assets that will be retired. Please refer to our response to Question 005, Subpart (a) for additional information regarding the retirement of assets during 2023 system hardening activities. (Please see the response to Question 005, Subpart (a) for additional information regarding the tracking of PG&E's retired assets. Please also see Question 005, Subpart (a) for information regarding group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC).)</p>	Holly Wehman	4/26/2023	5/3/2023	5/3/2023	0	NA	8.1.2	Grid Design and System Hardening	AI
278	CAIPA	Set WMP-20	CAIPA_Set WMP-20	4	CAIPA_Set WMP-20_04	<p>What is PG&E's standard practice for tracking assets that are retired from service before they are fully depreciated?</p>	<p>Please see the response to Question 005, Subpart (a) for information regarding the tracking of PG&E's retired assets. Please also see Question 005, Subpart (a) for information regarding group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC).</p>	Holly Wehman	4/26/2023	5/3/2023	5/3/2023	0	NA	8.1.5	Asset Management and Inspection Enterprise System(s)	NA
279	CAIPA	Set WMP-20	CAIPA_Set WMP-20	5	CAIPA_Set WMP-20_05	<p>a) If PG&E retires from service an asset that has not been fully depreciated, does it recognize the remaining unrecorded value of the asset from its rate base?</p> <p>b) How does PG&E determine the remaining unrecorded value of an asset at the time the asset is retired from service?</p> <p>c) Please describe any scenarios in which PG&E would value from service an asset that has not been fully depreciated, but would keep the remaining unrecorded value of the asset in its rate base.</p>	<p>At the premise of the question is incorrect: PG&E follows group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC). Group depreciation accounting refers to the well-established regulatory accounting method for large groups of homogeneous assets. The premise of group depreciation accounting provides (which may be referred to as "asset accounting" or "group depreciation") that assets retired are deemed fully depreciated at the time of their retirement, and hence their value is not being forecast to zero. As such, there is no unrecorded value of WMP assets retired. PG&E follows group depreciation practices, which are based on the average service life of elements of that asset equipment. The average age takes into account the ages of assets wherever they retire (and removed from service), and computes the average. The average itself is a recognition that some retirements occur before the average service life and others after.</p> <p>PG&E complies with the requirements of the FERC Code of Federal Regulations (CFR) Uniform System of Accounts when retiring assets. Title 18, Part 101 of the CFR states in its Electric Plant Instruction, section 10E(2)(c), that when depreciation is to be retired, the book cost of the unit retired is credited to the plant account and debited to the accumulated provision for depreciation. There is no change in rate base when assets are retired.</p> <p>The Commission's Standard Practice 1.4, Determination of Straight-Line Depreciable Life (Depreciation Accounts) (SP 1.4), issued January 3, 1993, provides the same accounting treatment for retirements. (SP 1.4, p. 5, Ch. 1, § 4.) Adjusted depreciation expense is calculated with the understanding that unrecorded depreciation expense due to earlier retirements is made up by depreciation expense on other units which reduce the average service life of an account. As later explained in the Commission's SP 1.4, in group accounting all units having like mortality characteristics or all units of an account are considered together. Accounts for the group are based on composite or weighted average values of usage and service life expectancy. The resulting values are applied to the surviving unit balances each year at each accounting period. A deficiency due to early retirement of assets will be made up through depreciation of other units.</p> <p>At the premise of the question is incorrect: PG&E follows group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC). As such, there is no unrecorded value of WMP retired assets in rate base or required costs. Please see the response to Question 005, Subpart (a), in its related question.</p>	Holly Wehman	4/26/2023	5/3/2023	5/3/2023	0	NA	8.1.5	Asset Management and Inspection Enterprise System(s)	NA
280	CAIPA	Set WMP-20	CAIPA_Set WMP-20	6	CAIPA_Set WMP-20_06	<p>a) As of the date of this data request, does PG&E's rate base currently include any portion of the value of any assets that are no longer in service?</p> <p>b) If the answer to part (a) is yes, please explain why.</p> <p>c) If the answer to part (a) is no, be certain to include that ensure PG&E's rate base does not currently include any portion of the value of assets that are no longer in service.</p>	<p>At the premise of the question is incorrect: PG&E follows group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC). As such, there is no unrecorded value of WMP retired assets in rate base or required costs. Please see the response to Question 005, Subpart (a), in its related question.</p>	Holly Wehman	4/26/2023	5/3/2023	5/3/2023	0	NA	8.1.5	Asset Management and Inspection Enterprise System(s)	NA
281	CAIPA	Set WMP-20	CAIPA_Set WMP-20	7	CAIPA_Set WMP-20_07	<p>a) Please see the response to Question 001, Subpart (a) and (b). When an asset is retired from service, PG&E has an on-call process to document work completed in the field. These activities, such as scabbled for reapplying the system of record and the retired asset is also removed from our GIS system and archived within SAP. Please see also the response to Question 005, Subpart (a), in its related question.</p> <p>b) Please see the response to Question 001, Subpart (a) and (b). When an asset is retired from service, PG&E has an on-call process to document work completed in the field. These activities, such as scabbled for reapplying the system of record and the retired asset is also removed from our GIS system and archived within SAP. Please see also the response to Question 005, Subpart (a), in its related question.</p> <p>c) Please describe any scenarios in which PG&E would value from service an asset that has not been fully depreciated, but would keep the remaining unrecorded value of the asset from its rate base?</p>	<p>At the premise of the question is incorrect: PG&E follows group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC). As such, there is no unrecorded value of WMP retired assets in rate base or required costs. Please see the response to Question 005, Subpart (a), in its related question.</p>	Holly Wehman	4/26/2023	5/3/2023	5/3/2023	0	NA	8.1	Grid Design, Operations, and Maintenance	Distribution Pole and Replacements Traditional Overhead Seriesing Transformers
282	TURN	000	TURN_000	1	TURN_000_01	<p>1. Regarding the 2023-2028 Undergrounding Workplan referenced on page 910 of the WMP (R1) and provided in Excel format in response to TURN Data Request 2-4</p> <p>2. For each undergrounding project listed in this document, please provide the RESE calculated in accordance with the CPUC's S-MAP Settlement (see page 242 of set of PG&E's WMP-R1) not SWRISE or WFE) as PG&E calculated for the undergrounding project. Please provide all inputs and calculations for these RESE values, in Excel format.</p> <p>3. For each undergrounding project listed in this document, please provide the RESE calculated in accordance with the CPUC's S-MAP Settlement (see page 242 of set of PG&E's WMP-R1) that PG&E calculated for any alternative mitigation for the project location, including but not limited to covered conductor. Please provide all inputs and calculations for these RESE values, in Excel format.</p>	<p>At the premise of the question is incorrect: PG&E follows group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC). As such, there is no unrecorded value of WMP retired assets in rate base or required costs. Please see the response to Question 005, Subpart (a), in its related question.</p>	Tom Long	4/26/2023	5/1/2023	5/1/2023	0	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-22-18 - Progress and Update on Undergrounding and Risk Prioritization
283	MORA	Data Request No. 3	MORA_Data Request No. 3	1	MORA_Data Request No. 3_01	<p>Please provide for Asset Port data for Camera, Fuse, Support Structure, and Weather Station.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
284	MORA	Data Request No. 3	MORA_Data Request No. 3	2	MORA_Data Request No. 3_02	<p>Provide Asset Line data for Transmission Line (as permitted as non-confidential), Primary Distribution Line, and Secondary Distribution Line.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
285	MORA	Data Request No. 3	MORA_Data Request No. 3_03	3	MORA_Data Request No. 3_03	<p>Provide PPSF Event data, including Event Log, Event Line, Event Polygon data. Please exclude customer meter data. Provide all PPSF Event Asset Damage data including photos.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
286	MORA	Data Request No. 3	MORA_Data Request No. 3_04	4	MORA_Data Request No. 3_04	<p>Provide Risk Event Point data, including Wire Down, Ignition, Transmission unexplained outage (as classified non-confidential), Distribution Unexplained Outage, Distribution Vegetation Caused Unexplained Outage, Risk Event Asset Log.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
287	MORA	Data Request No. 3	MORA_Data Request No. 3_05	5	MORA_Data Request No. 3_05	<p>Under Initiatives, please provide Grid Hardening data, including Hardening Log, Hardening Point, and Hardening Line data. In addition, please provide all other Initiatives data.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
288	MORA	Data Request No. 3	MORA_Data Request No. 3_06	6	MORA_Data Request No. 3_06	<p>Under Initiatives, please provide Other Initiative data for point, line, polygon features and the Other Initiative Log.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
289	MORA	Data Request No. 3	MORA_Data Request No. 3_07	7	MORA_Data Request No. 3_07	<p>Under Other Requested Data, please provide Red Flag Warning Day polygon data.</p>	The attachments have been reloaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	0	NA	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
290	CAIPA	Set WMP-21	CAIPA_Set WMP-21	1	CAIPA_Set WMP-21_01	<p>Per Table 8-12 Vegetation Management Implementation Objectives, PG&E's Focused Tree Inspection (FTI) Program is currently under development. By the end of 2025, PG&E plans to "Fully Implement ADC cross-sectional team to implement guidelines across all AOCs." 4. PG&E states in response to question 11 of data request California/PG&E-WMP-15 that its FTI pilot of 300 overhead miles is "designed to avoid the benefits needed to support and inform future work plans. Please provide an anticipated schedule for PG&E's rollout of the Focused Tree Inspection Program in the table below (adding rows as needed), including, at a minimum, when and how PG&E will execute the pilot, analyze data collected from those pilots, and translate said data into a fully realized Focused Tree Inspection Program. Stop in implementing the Focused Tree Inspections Program.</p>	<p>Please see the table below for the Focused Tree Inspection Program schedule: PG&E is still developing the procedure for this program. We intend to use Oct of 2023 to analyze the results of the pilots to inform our 2024 FTI plan.</p> <p>Stop in implementing the Focused Tree Inspections Program Beginning Date Completion Date</p> <p>Exclude FTI Pilot</p> <p>Table 8-12: Vegetation Management Implementation Objectives</p> <p>8-12.1.1: Evaluate how mid-cycle inspections accuracy can adjust with FTI 9/13/2023 11/30/2023</p> <p>8-12.1.2: Update new relevant procedures and processes 8/1/2023 10/31/2023</p> <p>8-12.1.3: Implement guidelines across all AOCs in HFR 10/31/2024 12/31/2024</p> <p>8-12.1.4: Evaluate feasibility of developing a mid-year historical dataset 6/1/2023 3/1/2024</p>	Holly Wehman	4/27/2023	5/2/2023	9/20/2023	0	NA	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections

Item ID	Category	Request ID	Response ID	Request Description	Response Description	Requester	Request Date	Response Date	Resolution Status	Resolution Date	Resolution Method	Resolution Description		
291	CaPA	Set WMP-21	CaPA_Set WMP-21	2	CaPA_Set WMP-21_Q2	Holy Wellman	4/27/2023	5/9/2023	5/9/2023	1	NA	QDR	NA	NA
292	CaPA	Set WMP-21	CaPA_Set WMP-21	3	CaPA_Set WMP-21_Q3	Holy Wellman	4/27/2023	5/2/2023	5/2/2023	3	NA	QDR	NA	NA
293	CaPA	Set WMP-21	CaPA_Set WMP-21	4	CaPA_Set WMP-21_Q4	Holy Wellman	4/27/2023	5/2/2023	5/2/2023	0	NA	9.2.1	Public Safety Power Shutoff	Risk Thresholds is w/ PE, PF, etc.) and Decision-Making Process That Determine the Need for a PSPS.
294	MORA	Data Request No. 4	MORA_Data Request No. 4_C1	1	MORA_Data Request No. 4_C1	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	1	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
295	MORA	Data Request No. 4	MORA_Data Request No. 4_C2	0	MORA_Data Request No. 4_C2	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
296	MORA	Data Request No. 4	MORA_Data Request No. 4_C3	3	MORA_Data Request No. 4_C3	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	1	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
297	MORA	Data Request No. 4	MORA_Data Request No. 4_C4	4	MORA_Data Request No. 4_C4	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
298	MORA	Data Request No. 4	MORA_Data Request No. 4_C5	5	MORA_Data Request No. 4_C5	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
299	MORA	Data Request No. 4	MORA_Data Request No. 4_C6	6	MORA_Data Request No. 4_C6	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
300	MORA	Data Request No. 4	MORA_Data Request No. 4_C7	7	MORA_Data Request No. 4_C7	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFDT Proposed Updates to HFDT
301	MORA	Data Request No. 4	MORA_Data Request No. 4_C8	8	MORA_Data Request No. 4_C8	Joseph Mitchell	4/29/2023	5/3/2023	5/3/2023	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
302	TURN	010	TURN_010	1	TURN_010_Q1	Tom Long	4/29/2023	5/3/2023	5/3/2023	0	NA	8.1.8.2.2	Grid Design, Operations, and Maintenance	Undergrounding

312	TURN	011	TURN_011	4	TURN_011_04	<p>4. Regarding Attachment 2023-04-06_PGE_2023_WMP_Sect 6.4.2_A6001, an earlier version of which is referenced on page 18, 16, 17 of the WMP 011:</p> <p>a. Please add a column to the spreadsheet and provide the unique circuit segment identifier requested in 1(b)(1) above and 2(a) and 3 above.</p> <p>b. In Excel, please provide all supporting data and property link cells in this spreadsheet to support the "Integrated Risk" calculations in Tab "Data_RF" (columns L, O, and R) for underpinning. Many of these links to documents in PGE's internal server are non-functional.</p> <p>c. Please define and explain the following column headings on the "Data_RF" tab:</p> <ul style="list-style-type: none"> "Weighted composite for system_hardware_wdfrisk_risk_miles" "HTO mileage (please include whether this is overhead or underground mileage)" Baseline wildfire risk (and please indicate if this is the same as the WDRM3 index) "HTO mileage" (if not overhead circuit miles, please add a column to the spreadsheet that provides overhead circuit miles for each circuit segment) Please define and explain the following column headings on the "Data_RF" tab: "Weighted composite for system_hardware_wdfrisk_risk_miles" "HTO mileage (please include whether this is overhead or underground mileage)" Baseline wildfire risk (and please indicate if this is the same as the WDRM3 index) "HTO mileage" (if not overhead circuit miles, please add a column to the spreadsheet that provides overhead circuit miles for each circuit segment) Please define and explain the following column headings on the "Data_RF" tab: "Weighted composite for system_hardware_wdfrisk_risk_miles" "HTO mileage (please include whether this is overhead or underground mileage)" Baseline wildfire risk (and please indicate if this is the same as the WDRM3 index) "HTO mileage" (if not overhead circuit miles, please add a column to the spreadsheet that provides overhead circuit miles for each circuit segment) <p>d. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>e. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>f. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>g. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>h. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>i. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>j. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>k. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>l. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>m. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>n. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>o. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>p. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>q. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>r. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>s. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>t. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>u. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>v. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>w. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>x. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>y. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p> <p>z. If not overhead, please provide a corrected calculation, and an explanation of the percentage of total wildfire risk mitigated by undergrounding indicated by these calculations.</p>	Tom Long	5/1/2023	5/8/2023	5/8/2023	https://www.pge.com/cgi-bin/epgs/commmon/offerinfo/offerinfo.jsp?offerid=20230717&tab=011_04	1	NA	6.4.2	Risk Methodology and Assessment	Typ Risk-Creating Circuit Segments
313	CaPA	Set WMP-22	CaPA_Set WMP-22	1	CaPA_Set WMP-22_01	<p>During the April 27, 2023, Q&A portion of the Grid Operation, Design, and Maintenance session of the WMP workshop held on April 27, 2023, PGE estimated that, during the season (May through November) in 2022, EPSS was enabled on approximately 45,600 circuit miles.</p> <p>a) In the above estimate correct? If not, please provide an estimate of the percentage of circuit miles that EPSS was enabled during the season in 2022.</p> <p>b) Does PGE have a forecast of the percentage of circuit days on which EPSS will be enabled during the season in 2023? If so, please provide it.</p> <p>c) Please define "circuit days."</p>	Holy Wellman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/cgi-bin/epgs/commmon/offerinfo/offerinfo.jsp?offerid=2023050201	0	8.1.8.1.1	Grid Design and System Handing	Protective Equipment and Device Settings	
314	CaPA	Set WMP-22	CaPA_Set WMP-22	2	CaPA_Set WMP-22_02	<p>During the Q&A portion of the Grid Operation, Design, and Maintenance session of the WMP workshop held on April 27, 2023, a caller raised concerns about the feasibility of undergrounding in rocky and steep terrain and in wetlands. In response, PGE stated that it was evaluating both and techniques to perform undergrounding in those areas.</p> <p>a) Please list and describe the current obstacles to undergrounding in rocky and steep terrain.</p> <p>b) What tools and techniques is PGE evaluating to improve the feasibility of undergrounding in rocky and steep terrain?</p> <p>c) Please state whether the unit cost provided in response to part (c) is based on mileage of overhead circuits removed or mileage of underground circuits installed.</p> <p>d) Regarding the unit cost given in response to part (c) of this question, when does PGE expect to be able to reduce the unit cost to less than \$1.0 million per mile?</p> <p>e) Of the WMP undergrounding projects that PGE plans to execute in 2023-2024, do any involve installing a significant amount (greater than 5 miles) of underground conductor in rocky and steep terrain?</p> <p>f) If the answer to part (f) is yes, please list each such project.</p>	Holy Wellman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/cgi-bin/epgs/commmon/offerinfo/offerinfo.jsp?offerid=2023050202	0	NA	8.1.2.2	Grid Design and System Handing	Undergrounding of Electric Lines and/or Equipment - Distribution
315	CaPA	Set WMP-22	CaPA_Set WMP-22	3	CaPA_Set WMP-22_03	<p>During the Q&A portion of the Grid Operation, Design, and Maintenance session of the WMP workshop held on April 27, 2023, a caller raised concerns about the feasibility of undergrounding in rocky and steep terrain and in wetlands. In response, PGE stated that it was evaluating both and techniques to perform undergrounding in those areas.</p> <p>a) Please list and describe the current obstacles to undergrounding in wetlands.</p> <p>b) What tools and techniques is PGE evaluating to improve the feasibility of undergrounding in wetlands?</p> <p>c) Please state whether the unit cost provided in response to part (c) is based on mileage of overhead circuits removed or mileage of underground circuits installed.</p> <p>d) Regarding the unit cost given in response to part (c) of this question, when does PGE expect to be able to reduce the unit cost to less than \$1.0 million per mile?</p> <p>e) Of the WMP undergrounding projects that PGE plans to execute in 2023-2024, do any involve installing a significant amount (greater than 5 miles) of underground conductor in wetlands?</p> <p>f) If the answer to part (f) is yes, please list each such project.</p>	Holy Wellman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/cgi-bin/epgs/commmon/offerinfo/offerinfo.jsp?offerid=2023050203	0	NA	8.1.2.2	Grid Design and System Handing	Undergrounding of Electric Lines and/or Equipment - Distribution
316	CaPA	Set WMP-22	CaPA_Set WMP-22	4	CaPA_Set WMP-22_04	<p>Table PGE-22-11.1 on page 903 of PGE's WMP states that the unit cost of covered conductor was \$825,698 in 2022. PGE's response to data request CA/Advocates-PGE-2022WMP-10, question 10 confirms that there are no additional costs associated with handling that was excluded from Table 22-11.1. In response to data request CA/Advocates-PGE-2022WMP-08, question 10, PGE stated that the actual 2022 record-to-date unit cost of covered conductor was \$251,041,000 and that PGE installed 335 miles. This results in \$851,860 per mile of covered conductor in 2022.</p> <p>a) Why is PGE's forecast of covered conductor unit cost in 2025 nearly double the actual unit cost in 2022? Please state the basis of your unit cost forecast of \$1.878 million per mile in 2025.</p> <p>b) Provide any workpapers or analyses that you used to develop your unit cost forecast of \$1.878 million per mile in 2025.</p>	Holy Wellman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/cgi-bin/epgs/commmon/offerinfo/offerinfo.jsp?offerid=2023050204	0	NA	8.1.2.1	Grid Design and System Handing	Covered Conductor Installation - Distribution

317	CuPA	Set WMP-22	CuPA_Set WMP-22_05	5	CuPA_Set WMP-22_05	<p>POAE is answering CalADocs-POE-2022WMP-19, Question 5, subject 1, a part of its original response. Although there is not a specific attribute to GIS to distinguish covered and bare conductors, we were able to utilize the conductor type codes to differentiate between covered and bare conductors.</p> <p>At POAE reference POE's revision to CalADocs-POE-2022WMP-19, Question 5, where POAE has provided the volume of circuit miles of distribution covered conductor lines from January 2022 to the POE currently does not plan to add a specific attribute to GIS because we are unable to utilize the conductor type codes to differentiate between covered and bare conductors.</p> <p>(A) Most residential outages typically involve a fault condition. POAE assumes that all distribution outages can potentially result in an ignition, regardless of other prevailing conditions. Therefore, POAE is measuring the reduced effectiveness of WMP-Disclosure0223_DR_CalADocs_022-GO10AN2.pdf CC by comparing the outages on the circuit segments with CCs to outages on CC segments with WMP conductors.</p> <p>POAE has further validated its effectiveness study by looking at ignition caused CC segments with WMP conductors in the Joint IOU Covered Conductor Report. After data was gathered for possible fault conditions of CC in a controlled lab environment, POAE's analysis of ignitions has further refined the existing results of the full lab failure mode. This is reflected in POAE's contribution of the Covered Conductor Revealed Effectiveness section 001-002 of the 2023-2025 Wildfire Mitigation Plan, Revision 1, and the Joint IOU Covered Conductor Report. As stated in the Joint IOU Covered Conductor Report, the number of ignitions observed on the CC lines do not provide statistically significant data for calculating effectiveness with respect to ignitions.</p> <p>(B) As discussed in the Joint IOU Covered Conductor Report, in 2023, the utilities will continue to work towards developing consistent methods to measure the effectiveness of CC for better comparability. The utilities also plan to discuss outage data, creation identification and reporting. These efforts will require O&E, dissemination and updates to systems, workflows, and reporting across the utilities.</p> <p>(C) The expected life of newly installed Covered Conductor (CC) is not identical to the newly installed Bare Conductor (BC) because the failure modes are different between the two conductor types. At this time, POAE does not have a useful life expectancy for covered conductor due to ongoing evaluation of OI exposures and the possibility of accelerated corrosion from water intrusion to the protective jacket. These failure modes were documented in POAE's Covered Conductor Testing. The Joint IOU effort is continuing to evaluate POAE's existing results and the impact of the expected useful life of newly installed covered conductor.</p> <p>(D) POAE uses the same inspection methods for CC and BC. As noted in the 2023 WMP Joint IOU CC Report, most inspection practices for BC also apply to CC. In addition, in 2023, POAE updated the Detailed Circuit Inspection Checklist to include prompts for identifying failure modes that are unique to CC, such as CC wire jacket end cuts and internal conductor exposure, CC exposure and bare, and dead-end cover mis-align on CC construction. POAE is unable to evaluate field results, discussed in response to subject (A), to answer an additional question to inspection methods are required.</p> <p>(E) POAE's current ACP POE-22-01 in the 2023-2025 WMP, due to POAE's PPSFS modeling approach, POAE would not manually apply our PPSFS criteria (such as wind speed) to circuit-segments to account for covered conductor or any other program that reduces the probability of catastrophic outcomes. Our Catastrophic Fire Probability model (discussed in Section 9) is a risk-based assessment of the probability of ignitions given an outage that is based on the probability of catastrophic fires (Fire Potential Index). Thus, we would not adjust the threshold at which PPSFS is executed (such as a scope for PPSFS at the same risk threshold), but any program or external factor that results in a beneficial outcome would reduce the probability of ignitions and therefore decrease the chance of activating the PPSFS threshold.</p> <p>(F) We increase our outage data each year into our Outage Producing Winds (OPW) and Ignition Probability Weather (IPW) machine learning models. These updates account for any updated wind to outage to ignition responses in local areas of the grid. We are also exploring if adding covered conductor as a factor of the IPW model to future iterations provides benefits (see Objective 5A-D).</p> <p>(G) See the discussion in question 19.</p>	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/10/2023</p> <p>5/10/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	0	NA	8.1, 2.1	Circuit Design and System Handring	Covered Conductor Installation - Distribution
318	CuPA	Set WMP-22	CuPA_Set WMP-22_08	6	CuPA_Set WMP-22_08	<p>(A) Given the best information now available to POAE, is the expected useful life of newly installed covered conductor identical to that of newly installed bare overhead conductor?</p> <p>(B) Does POAE expect that asset management and maintenance needs for covered overhead conductor are identical to those of bare overhead conductor?</p> <p>(C) How does POAE currently validate to estimate of the effectiveness of covered conductor in its system?</p> <p>(D) How does POAE plan to validate to estimate of the effectiveness of covered conductor in its system over the 2023-2025 WMP period?</p>	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/03/2023</p> <p>5/03/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	0	NA	8.1, 2.1	Circuit Design and System Handring	Covered Conductor Installation - Distribution
319	CuPA	Set WMP-22	CuPA_Set WMP-22_07	7	CuPA_Set WMP-22_07	<p>Table 8-7.2 on page 448 of POAE's WMP uses the term "Critical pass rate." Please define this term.</p>	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/03/2023</p> <p>5/03/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	1	NA	8.1, 2.1	Circuit Design and System Handring	Quality Control
320	CuPA	Set WMP-22	CuPA_Set WMP-22_08	8	CuPA_Set WMP-22_08	<p>In response to data request CalADocs-POE-2022WMP-05, question 3, POAE provided the number of distribution transformers that failed QC review. Out of 52,884 inspections that underwent desktop quality control, 4,976 (9.4%) failed. Out of 1,199 inspections that underwent field quality control, 402 (34%) failed.</p> <p>The above numbers represent a pass rate of 90.6% for desktop quality and 65.3% for field quality control. Lines 8-7.2 on page 448 of POAE's WMP use a "critical pass rate" of 85.3% for the distribution desktop audit, and 79.3% for distribution field audits.</p> <p>(A) If the field figures in the table above are inaccurate, please provide corrected figures.</p> <p>(B) Please explain the apparent discrepancy between the failed inspection numbers provided in response to data request CalADocs-POE-2022WMP-05, question 3, and the critical pass rate provided in Table 8-7.2 on page 448 of POAE's WMP?</p>	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/03/2023</p> <p>5/03/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	0	NA	8.1, 6.2	Circuit Design and System Handring	Quality Control
321	CuPA	Set WMP-22	CuPA_Set WMP-22_09	9	CuPA_Set WMP-22_09	<p>In response to data request CalADocs-POE-2022WMP-08, question 6, POAE provided a list of incidents in 2022 where the actions of a VM contractor caused a safety risk to workers or the public.</p> <p>Please list out the significant CalADocs-POE-2022WMP-23_AJ0101 risk with the number of miles worked by each VM contractor in 2022 for each VM program.</p> <p>Please list the tasks of contractors and programs come from columns L and G, respectively, of the attachment to POAE's responses to CalADocs-POE-2022WMP-06, question 6. Please make any additions that are necessary for completeness and accuracy.</p>	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/03/2023</p> <p>5/03/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	1	NA	8.2	Vegetation Management and Inspections	various
322	CuPA	Set WMP-22	CuPA_Set WMP-22_10	10	CuPA_Set WMP-22_10	<p>In response to data request CalADocs-POE-2022WMP-02, question 1, POAE provided its 2022 Quality Vegetation Distribution Audit report (WMP-Disclosure0223_DR_CalADocs_022-GO10AN2CONF.pdf).</p> <p>(A) For each of the 15 "zero tolerance & high-risk findings" identified on page 4 of the above report, what actions has POAE taken to mitigate these non-conformances in the future?</p> <p>(B) For each of the 15 "zero tolerance & high-risk findings" identified on page 4 of the above report, describe what actions has POAE addressed the non-conformances to mitigate wildfire risk.</p> <p>(C) For each category of the "Top three Critical attribute findings" identified on page 4 of the above report, what actions has POAE taken to mitigate these non-conformances in the future?</p> <p>(D) For each category of the "Top three non-Critical attribute findings" identified on page 4 of the above report, describe what actions has POAE taken to mitigate these non-conformances in the future?</p> <p>(E) Please describe all actions POAE has taken to reduce the rate of critical attribute non-conformances in future distribution system inspections.</p> <p>(F) Please compare and contrast the 2022 Quality Vegetation Distribution Audit mentioned above and the QA program for system inspections that POAE plans to implement (section 1.6.1.1 POAE's WMP).</p> <p>(G) Explain/Describe Conductor (Potential Fire Hazard) - Based on page 4 of the report.</p> <p>(H) Zero Tolerance - Heat Hot Core (WMO) - Misused Inspections: (1) Unusual conductor dead-end (10) High-Risk - (5) Exposed/terminated conductors (potential fire hazard); (3) Wrong pole inspected; (2) PCB transformers; (1) Fire. To mitigate the non-conformances in the future, below are some of the actions taken by POAE for the zero-tolerance findings:</p> <ul style="list-style-type: none"> Misused Inspections - POAE performs quality reviews and dispatches any missed assets for urgent inspections. POAE provides annual reporting to the CPUC on any and all late or missed OIG65 inspections. POAE's conductor dead-end - Based on page 4 of WMP-Disclosure0223_DR_CalADocs_022-GO10AN2CONF.pdf, the guidance for the field employees is to visually check for excessively corroded or damaged conductors and dead-end hardware which has a potential for fall, drop, or cause an ignition. If observed, create EC Notification to replace conductor or dead-end hardware. "Exposed/Terminated Conductor (Potential Fire Hazard)" - Based on page 4 of WMP-Disclosure0223_DR_CalADocs_022-GO10AN2CONF.pdf, the guidance for the field employees is to visually check all conductors (primary/secondary/tertiary), associated attachments and dead-ends for damage from the structure being inspected to mid-span in all directions or the weather-head or to the conductor's termination point if observed, create EC notification to repair or replace the conductor. Additionally, if the conductor has 40% or more of structure damage, a company representative stands by until a crew arrives to complete the work. "Wrong Pole Inspected" - If the field employees inspected a wrong pole or made an error during pole inspection, they have 48 hours to re-submit the inspection for the pole in report again. If beyond 48 hours, field employees must reach out to the Systems Inspection Team to have them re-inspect the pole and perform a re-inspection again. <ul style="list-style-type: none"> - PCB Transformer Insulation - Based on the TD-2505 EPHM Manual Assessments and Notification section for information about addressing off of the field, the guidance for the field employees is that if you observe a stain or leak THEN (1) Look for exposure or contamination. Field employees can refer to the PCB Spill Risk Category Response Matrix to determine the appropriate action and priority. Field employees must comply with the spill matrix table for how to handle oil conditions. Field employees should use the oil "indicators" language from the oil spill matrix table to describe the oil condition in the comments of the EC notification. 	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/12/2023</p> <p>5/12/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	2	NA	8.1, 6.1	Circuit Design and System Handring	Quality Assurance and Quality Control
323	CuPA	Set WMP-22	CuPA_Set WMP-22_11	11	CuPA_Set WMP-22_11	<p>Table POAE-8.1.2-3 on page 340 of POAE's WMP lists the number of underground miles to be performed in "Top 20 percent Risk-Ranked Circuit Segments" in 2023, 2024, 2025, and 2026. The table notes: "The 2023 risk rank list for segments is based on the 2021 WORM v2. The 2024-2026 risk rank for segments is based on the 2022 WORM v3."</p> <p>(A) How many "Top 20 percent Risk-Ranked Circuit Segments" for each year from 2023-2026?</p> <p>(B) How many circuit miles are contained within the "Top 20 percent Risk-Ranked Circuit Segments" for each year from 2023-2026?</p> <p>(C) How many circuit segments are contained within the "Top 20 percent Risk-Ranked Circuit Segments" for each year from 2023-2026?</p> <p>(D) Does the phrase "Top 20 percent Risk-Ranked Circuit Segments" refer to the top 20 percent of circuit segments across POAE's entire service territory, across the FTD, or within a geographic area? Please explain your answer.</p>	<p>Holly Welmen</p> <p>5/20/23</p> <p>5/03/2023</p> <p>5/03/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	0	NA	8.1, 2	Circuit Design and System Handring	Undergrounding of Electric - Distribution
324	CuPA	Set WMP-23	CuPA_Set WMP-23_01	1	CuPA_Set WMP-23_01	<p>POAE states in its WMP p. 751: "Based on our updated 2021 PPSFS Protocols, none of the circuits below would not have been de-energized three or more times in any calendar year from 2019 to 2022. These circuits are noted below as "reliability with PPSFS Protocols." Please explain in detail how circuit ID 124461196 (prior name: Brunswick 1196) would have been mitigated by PPSFS Protocols.</p>	<p>Holly Welmen</p> <p>5/9/2023</p> <p>5/8/2023</p> <p>5/9/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	0	NA	9.2	Public Safety Power Shutoff	Protocols on PPSFS
325	CuPA	Set WMP-23	CuPA_Set WMP-23_02	2	CuPA_Set WMP-23_02	<p>Regarding POAE's October 26-29, 2019, Post-PPSFS Event Report4, please explain in detail how POAE's updated 2021 PPSFS Protocols, as mentioned in Question 1, would have mitigated customers served by each of the affected circuits during PPSFS de-energization event.</p>	<p>Holly Welmen</p> <p>5/9/2023</p> <p>5/8/2023</p> <p>5/9/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	0	NA	9.2	Public Safety Power Shutoff	Protocols on PPSFS
326	CuPA	Set WMP-23	CuPA_Set WMP-23_03	3	CuPA_Set WMP-23_03	<p>Regarding POAE's AFN Panel, Appendix C "Program/Assistance Participation by Ormaiz Teut", A.4, please provide the demographics (especially racial/ethnic breakdown and income distribution) for each census tract that received benefits of the following programs:</p> <ol style="list-style-type: none"> Self-Generation Incentive Program (SGIP) Generator and Battery Rebate Program (GBRP) 	<p>Holly Welmen</p> <p>5/9/2023</p> <p>5/8/2023</p> <p>5/9/2023</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p> <p>https://www.pge.com/page_public/customer-service/communications/press-releases/2023/05/2023-wmp-joint-iou-report</p>	3	NA	8.5, 3	Community Outreach and Engagement	Engagement with Access and Functional Needs Population

327	OES	004	OES_004	1	OES_004_01	<p>Regarding Ignition Probability Weather Model</p> <p>a. POE's WMP 3 data to IPW framework analyzes positive and negative changes in grid performance and liability year-over-year and applies a three-weighted approach to weigh more recent years of learned performance more heavily in the final model output. To 700.</p> <p>b. What metrics are used to analyze the year-over-year changes in grid performance and liability?</p> <p>c. Provide a description (i.e., changes in event, ignition, and outage numbers and locations of changes) POE has observed in grid performance based on implementing system hardware mitigation, including the amount of time it took to observe any statistical changes that would account for changes in PSPS decision-making.</p> <p>d. How is a year-over-year weather variation accounted for in the analysis of year-over-year changes in grid performance and liability?</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	0	NA	9.2.1	Public Safety Power Shutoff	Risk Thresholds (e.g., WS, FPI, etc.) and Decision-Making Process That Determine the Need for a PSPS
328	OES	004	OES_004	2	OES_004_02	<p>Regarding EPSS in IPW Model</p> <p>POE discusses its Ignition Probability Weather (IPW) Model on p. 705 of its WMP.</p> <p>a. How does the IPW Model analyze and consider outages from EPSS (i.e., differentiating analysis completed)?</p> <p>b. How does the IPW Model account for EPSS-enabled outages?</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	0	NA	9.2.1	Public Safety Power Shutoff	Risk Thresholds (e.g., WS, FPI, etc.) and Decision-Making Process That Determine the Need for a PSPS
329	OES	004	OES_004	3	OES_004_03	<p>Regarding After Action Reports for Emergency Preparedness</p> <p>Provide the most recent After Action Report from emergency training exercises for the following exercises:</p> <p>a. Table 8-30 Personnel Training</p> <p>b. EPSS Emergency Preparedness Training Program</p> <p>c. PSPS Restoration Process</p> <p>d. PSPS Escalation for Distribution Control Center (DCC) Operators</p> <p>e. Table PSM&E-40-External Contractor Training</p> <p>f. TD-1464</p> <p>g. Table 4-1 Internal DR, Simulation, and Tabletop Exercise Program</p> <p>h. Operations Based Wildfire FE</p> <p>i. Operations Based PSPS FSE</p> <p>j. Table 8-42 External DR, Simulation, and Tabletop Exercise Program</p> <p>k. Operations Based Wildfire FE</p> <p>l. Operations Based PSPS FSE</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	2	NA	8.4.2.2.2	Emergency Preparedness	Personal Training
330	OES	004	OES_004	4	OES_004_04	<p>Regarding Customer Group in PSPS Objective PS-05</p> <p>In PSPS objective PS-05, POE states that it will focus on a group of customers "not limited to AFN, MEL, and self-identified vulnerable populations."</p> <p>a. How does POE define the group of customers it is focusing on?</p> <p>b. What is the size of this group of customers that POE is focusing on?</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	0	NA	8.5.3	Community Outreach and Engagement	Engagement With Access and Functional Needs Populations
331	OES	004	OES_004	5	OES_004_05	<p>Regarding Areas of Concern and Focused Tree Inspections (FTI)</p> <p>a. How are POE's address on from ground-based trees (those not previously dead, dying, or declining) in non-Areas of Concern?</p> <p>b. In WMP 2023-POE-03, Question 7, POE indicated that ISA TRAO form is not digitized and will be used as a guide for FTI. During FTI, what information is inputted into OnView? Provide a copy of the form(s) within OnView inspection or required to input during FTI.</p> <p>c. During FTI, are all overripe trees within the AOC inspected?</p> <p>d. If not, what inspectors are required to perform a Level 1 and Level 2 inspection on each overripe tree?</p> <p>e. If not, what overripe trees are inspected and how is the level of inspection determined?</p> <p>f. How many critical miles within POE's AOCs were treated under the EWM program?</p> <p>g. On page 58 of POE's WMP 6 states, "Our Operations Mitigation include programs such as Enhanced Powerline Safety Settings (EPSS) and Focused Tree Inspections." FTI is not described as an "operational mitigation" in the WMP. Clarify this statement.</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	1	NA	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
332	OES	004	OES_004	6	OES_004_06	<p>Regarding Enhanced Vegetation Management</p> <p>a. Populate the following table with information regarding EVM.</p> <p>Year</p> <p>FTD Miles Completed</p> <p>Inspected Drive Potential Trees</p> <p>Trees Worked</p> <p>Average Trees Per Mile</p> <p>% of Miles in Top 20% of Risk</p> <p>2019</p> <p>2020</p> <p>2021</p> <p>2022</p> <p>Total</p> <p>b. Provide a GIS layer of the features showing where EVM work was completed.</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	1	NA	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
332	OES	004	OES_004	6REV	OES_004_06REV	<p>Regarding Enhanced Vegetation Management</p> <p>a. Populate the following table with information regarding EVM.</p> <p>Year</p> <p>FTD Miles Completed</p> <p>Inspected Drive Potential Trees</p> <p>Trees Worked</p> <p>Average Trees Per Mile</p> <p>% of Miles in Top 20% of Risk</p> <p>2019</p> <p>2020</p> <p>2021</p> <p>2022</p> <p>Total</p> <p>b. Provide a GIS layer of the features showing where EVM work was completed.</p>	Colin Lang	5/4/2023	5/15/2023	5/15/2023	0	NA	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
333	OES	004	OES_004	7	OES_004_07	<p>07- Regarding Vegetation-Caused Outages</p> <p>a. Populate the following table of vegetation-caused outages by mode of failure in the HFTD between 2015 and 2022 broken out by year. POE may add additional rows (i.e., mode of failure) if needed.</p> <p>VEGETATION CAUSED OUTAGE MODE OF FAILURE</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>2018</p> <p>2019</p> <p>2020</p> <p>2021</p> <p>2022</p> <p>Total</p> <p>b. Provide a GIS layer of the features showing where EVM work was completed.</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	1	NA	Appendix D	Area for Continued Improvement	ACI POE 03-28 - Progression of Effectiveness of Enhanced Clearance Joint Study

334	OBIS	004	004	004	004	8	CEIS_004_08	<p>Regarding Vegetation Hazards Mitigated by PSPS</p> <p>Does PG&E have data on vegetation hazards mitigated by PSPS? If so, please provide the following table of vegetation hazards mitigated by means of failure in the FPD between 2015 and 2022, broken out by year. PG&E may add additional rows (e.g., mode of failure) if needed.</p> <p>MODE OF FAILURE FOR VEGETATION HAZARDS MITIGATED BY PSPS</p> <p>2015 2016 2017 2018 2019 2020 2021 2022</p> <p>Branch (include < 12ft) Branch (within saddle, 4-12ft) Branch (> 4ft) Branch (include, distance Unknown) Branch (overhanging) Dead Tree Tree Fall (necrotic stem defect) Tree Fall (uplift defect) Tree Fall (uplift) Tree Clow into Other/Unknown TOTAL</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	0	NA	9.2.2	Public Safety Power Shutoff	Method Used to Compare and Evaluate the Relative Consequences of PSPS and Wildfires
335	OBIS	004	004	004	004	9	CEIS_004_09	<p>Regarding Coordination with Other Utilities on PSPS Wind Thresholds</p> <p>In its response to ACI PG&E-23-31, PG&E states: "In collaboration with the joint IOU team, PG&E has performed an effectiveness study to evaluate how covered conductors can reduce ignition risk compared to an uncoordinated approach." It is the collaboration referenced in the Covered Conductor Effectiveness Study (Table 8-83, Line 17)</p> <p>1. List PG&E's utility, if any, collaboration efforts with the investor-owned utilities at evaluating the effect of covered conductor on PSPS risk.</p> <p>2. Has PG&E specifically discussed raising of PSPS wind thresholds in any of its covered conductor collaboration efforts?</p> <p>3. List the collaboration efforts, if any, where adjusting PSPS wind thresholds for covered conductor was discussed.</p> <p>4. Provide a list of PG&E's circuits that are fully hardened with covered conductor.</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-23-31 – PSPS Wind Threshold Change Evaluations
336	OBIS	004	004	004	004	10	CEIS_004_10	<p>Regarding Tree Falls and PSPS</p> <p>Based on PG&E's review of potential ignition events during a PSPS event, vegetation-related hazards pose the highest risk for ignition. Please reference Table 5 and Table 6 of the Quarterly Data Report PG&E submits to the OEIS. Have all of the ignition events included those that pose the highest risk for ignition?</p> <p>PG&E has incorporated the wildfire potential and vegetation tags into its PSPS guidance (Catastrophic Fire Probability (CFP)) for the 2023-2025 WMP. Please reference WMP-Discovery2023_DR_CDIS_004-Q000A01001 for a list of historical OH covered conductor projects as well as a list of forecasted projects to harden covered conductors.</p>	Colin Lang	5/4/2023	5/9/2023	5/9/2023	0	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-23-31 – PSPS Wind Threshold Change Evaluations
337	OBIS	004	004	004	004	11	CEIS_004_11	<p>Regarding RSE (Risk-by-down) information required by the WMP Guidelines</p> <p>The 2023-2025 WMP Guidelines make specific requests for RSE, optimization of risk reduction and cost, and coordination decisions:</p> <p>7.1.4 Identifying and Evaluating Mitigation Initiatives</p> <p>(a) The procedure for identifying and evaluating mitigation initiatives (comparable to 2018 S&M Settlement Agreement, row 38), including the use of risk by-down estimates (e.g., risk-avoid efficiency) and evaluating the benefits and drawbacks of mitigation.</p> <p>7.1.4.2 Mitigation Initiative Prioritization</p> <p>(i) Explain how the electrical corporation is identifying its resources to maximize risk reduction. Describe how the proposed initiatives are an efficient use of electrical corporation resources and focus on achieving the greatest risk reduction for the most efficient use of funds and workforce resources.</p> <p>(ii) The electrical corporation must describe how it prioritizes mitigation initiatives to reduce both wildfire and PSPS risk.</p> <p>(iii) A high-level schematic showing the procedures and evaluation criteria used to evaluate potential mitigation initiatives. As a minimum, the schematic must demonstrate the roles of quantitative risk assessment, resource allocation, evaluation of other performance objectives (e.g., cost, timing) identified by the electrical corporation, and RSE alignment.</p> <p>PG&E does provide a graph of HFRM WORM as System Hardening Byproduct, Figure 6.6.1.1, but the detail provided does not allow an evaluation of RSE, or its conversion from section 7 and if it also missing important components of RSE. In particular, a detailed description of RSE (the risk-by-down process) is needed to reconcile with the information provided in tables 7.2 and 7.4. Please complete the following, including a list file as applicable:</p> <p>a. Provide RSE (Risk by-down) information in a new RSE table as follows, ranked in descending order of RSE. Mitigation (reference Section 2, Table 7.3-1) includes Tracking ID, WMP Category, Circuit Segments Impacted (reference Table 7-2), Estimated Risk Reduction, Estimated Cost, RSE (Risk Reduction/Cost)</p> <p>b. Update Table 7.4 to cross-reference the new RSE table. This can be completed by adding an index number to each Mitigation Initiative, where the index number is the RSE rank of the initiative from the RSE table.</p> <p>c. Add a separate spreadsheet of the RSE table information to the public safety power shutoff data.</p>	Colin Lang	5/4/2023	5/19/2023	5/19/2023	1	NA	7.1.4	Wildfire Mitigation Strategy Development	Identifying and Evaluating Mitigation Initiatives
338	OBIS	004	004	004	004	12	CEIS_004_12	<p>Regarding the PG&E framework for PSPS risk</p> <p>The actions that relate to models PSPS-L, PSPS-C, PSPS-V and PSPS-R do not sufficiently describe the calculations that ultimately result in a PSPS Risk Score. The Guidelines for section 6.2 Risk Analysis Framework require detailed discussion of likelihood, consequence, exposure potential and vulnerability for Public Safety Power Shutoffs (PSPS) Risk.</p> <p>6.1.1 Overview The electrical corporation must provide a brief narrative describing its methodology for quantifying its overall safety risk of wildfire and Public Safety Power Shutoff (PSPS).</p> <p>6.2.2.1 Likelihood The electrical corporation must discuss how it calculates the likelihood that its equipment (through normal operation or failure) will result in a catastrophic wildfire and the resulting likelihood of losing a PSPS.</p> <p>6.2.2.2 Consequence The electrical corporation must discuss how it calculates the consequences of a fire originating from an equipment and the consequence of implementing a PSPS event.</p> <p>In order to understand PG&E's likelihood calculations that ultimately result in the PSPS Risk Score, please provide the following, including via Excel file as applicable:</p> <p>Regarding PSPS Likelihood</p> <p>(i) Provide details on the inputs to the PSPS-L model and calculation.</p> <p>(ii) Is the LORF framework (depicted in Figure 6-2.1) used to calculate likelihood of a PSPS event?</p> <p>(iii) The PSPS Likelihood section briefly discusses applying current PSPS programs against historical climatological data and informed by FPI and IPW models, and refers to the WTRM data flow in Figure 6.2.2.3.</p> <p>(iv) Explain how PSPS programs, FPI and IPW models and the WTRM data flow are combined to produce the likelihood of a PSPS event.</p> <p>(v) In particular, how the historical backcast is used to predict future likelihood of a PSPS event.</p> <p>Regarding PSPS Consequence</p> <p>(i) Provide details on the inputs to the PSPS-C model.</p> <p>(ii) Provide explanation on the PSPS Consequence schematic, Figure 6.2.1-3.</p> <p>(iii) How is Enterprise PSPS Consequence Risk Score calculated?</p> <p>(iv) Describe the output of the PSPS likelihood (provide an example of "12-year customer distribution").</p> <p>(v) How does Customer Classification and Weighting affect the results?</p> <p>(vi) Provide more detailed schematic of the CORE Process Steps (Figure 6.2.2-5) to illustrate model flow.</p> <p>(vii) Please provide a PSPS Consequence section with a similar level of detail as the Wildfire Consequence section, including figures and tables for transparency (using common row loc).</p>	Colin Lang	5/4/2023	5/16/2023	5/16/2023	0	NA	6.2	Risk Methodology and Assessment	Risk Analysis Framework
339	OBIS	004	004	004	004	13	CEIS_004_13	<p>Regarding PG&E's Asset Tracking Database</p> <p>While PG&E provided information in the 2023-2025 WMP's Appendix F on its overall progress in Asset Inventory Data Clasp, it is not clear what PG&E's progress is in the high-risk electric distribution assets, such as primary conductors and poles, that are not in the Asset Registry and therefore not included in the WMP's initiatives. In regards to PG&E's plans and progress on the Asset Registry Data Quality Program (ARDCQ), please provide the following, including via Excel file as applicable:</p> <p>a. Create a list of plans for identifying and correcting missing electric distribution asset types in High Fire Risk Districts (HFRD).</p> <p>b. Create a list of plans and timelines on the known gaps on the hard-to-find risk-oriented asset types (Footnote 217 pg. 966) in the HFRD. The content provided should address specific actions being taken and the metrics to address the gaps in the historical data on service poles and primary conductor risk-oriented asset types located in the HFRD.</p> <p>c. Does the Asset Data Quality Remediation initiative (pg. 966) include a discrete project aimed at addressing specific gaps in the high-risk electric distribution asset types in the HFRD?</p> <p>d. On pg. 966, it states that in 2022, "over 200 Critical Data Elements (CDE)" were identified. Did this number include any poles and/or primary conductors in HFRD?</p> <p>e. Does the ARDCQ Program explicitly address the assets found in the Asset Registry?</p> <p>f. In the data shown in Appendix F-5.1 – PG&E-23-31 Progress on Filig Asset Inventory Data Clasp' include electric assets in PG&E's entire service territory? If so, please provide a breakdown of the number of assets in the HFRD.</p> <p>g. What is the Data Quality Program (Table 23-3-2) is responsible for finding the missing high-risk asset types in the HFRD?</p> <p>h. What is PG&E's estimated number of poles and primary conductors that are missing from the "Asset Count" in Table 23-3-1 "Current Filig Ratio" of the poles and primary conductors that are missing, how many are in the HFRD?</p> <p>TABLE PG&E-23-31 - CURRENT FILIG RATES 188</p> <p>ID Asset Family Asset Component Asset Count-All Asset Data Quality</p>	Colin Lang	5/4/2023	5/23/2023	5/23/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-23-31 – Progress on Filig Asset Inventory Data Clasp

340	OEBIS	004	OEBIS_004	14	OEBIS_004_014	<p>Regarding POE's Use of Downed Conductor Detection (DCD) and Partial Voltage Detection (PVD)</p> <ol style="list-style-type: none"> Provide any analysis completed on reliability impacts due to DCD, including: <ul style="list-style-type: none"> The number of outages that occurred due to DCD in 2022 and 2023 The number of outages broken down by cause based on ignition drivers listed in Table 6 of the ODR of the 2022 O4 Quarterly Data Report The number of outages that occurred due to PVD in 2022 and 2023 Criteria used for PVD evaluation (if applicable) The number of total customer minutes interrupted from DCD outages Any mitigations POE is using to reduce reliability impacts from PVD implementation, including lessons learned from any piloting <p>Provide any analysis completed on reliability impacts due to PVD, including:</p> <ol style="list-style-type: none"> The number of outages that occurred due to PVD in 2022 and 2023 The number of outages broken down by cause based on ignition drivers listed in Table 6 of the ODR of the 2022 O4 Quarterly Data Report Criteria used for PVD evaluation (if applicable) The number of total customer minutes interrupted from PVD outages Any mitigations POE is using to reduce reliability impacts from PVD implementation, including lessons learned from any piloting <ol style="list-style-type: none"> When evaluating outages due to EPSS, are DCD and PVD outages included as part of that evaluation? If so, what is the number of additional outages caused by PVD and DCD respectively in 2022? If not, how does POE account for and track any associated reliability and safety impacts from DCD and PVD implementation, and how does that inform changes to the two programs? 	Colin Lang	5/4/2023	5/9/2023	5/9/2023	0	NA	8.1.2.10.1	Grid Design and System Hardening	Downed Conductor Detection Devices
341	OEBIS	004	OEBIS_004	15	OEBIS_004_015	<p>Regarding Feasibility Constraints</p> <p>POE must provide an explanation of how, if at all, feasibility constraints impact the decision-making of its Wildlife Governance Steering Committee in selecting a portfolio of mitigation measures that deviates from the risk informed prioritization. This includes:</p> <ol style="list-style-type: none"> A threshold or explanation of decision-making as processed by the Wildlife Governance Steering Committee, where feasibility constraints are accurately The correlation between use V3 risk outages and WFE The correlation between WFE and reliability Any associated shifts in prioritization due to implementing feasibility constraints A list of any projects not included within US scope due to feasibility constraints 	Colin Lang	5/4/2023	5/9/2023	5/9/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI POAE-22-34 - Review Process of Prioritizing Wildlife Mitigations
342	OEBIS	004	OEBIS_004	16	OEBIS_004_016	<p>Regarding Effectiveness of EPSS</p> <ol style="list-style-type: none"> Provide the formulae and calculations used by POE to determine the effectiveness of EPSS Provide analysis demonstrating adequate overlap between EPSS risk and wildfire risk to ensure POE's mitigations are directly addressing wildfire risk opposed to reliability Provide POE's rationale for assessing EPSS-derived mitigation measures, including ratios and work hours shifted around from wildfire risk mitigations. This should also include asset management related mitigations. 	Colin Lang	5/4/2023	5/9/2023	5/9/2023	2	NA	8.1.8.1.1	Grid Design, Operations, and Maintenance	Protective Equipment and Device Settings
343	OEBIS	004	OEBIS_004	17	OEBIS_004_017	<p>Regarding POE's Undergirding Program</p> <ol style="list-style-type: none"> Provide the cumulative V2 and V3 risk scores of the 2022 WMP vs 2023 WMP undergirding scope for 2023-2028. This should not include nor account for feasibility Provide the analysis on the remaining risk of the miles no longer scoped for undergirding, including: <ul style="list-style-type: none"> Interim mitigation being put into place if scoped for undergirding in the future The number of miles scoped for the future (past 2028) Alternative mitigation being used if no longer scoped for undergirding 	Colin Lang	5/4/2023	5/9/2023	5/10/2023	2	NA	8.1.2.2	Grid Design and System Hardening	Undergirding of Electric Lines and/or Equipment - Distribution
344	TURN	012	TURN_012	1	TURN_012_011	<ol style="list-style-type: none"> Please confirm that the Simplified Wildlife Risk Speed Efficiency (SWRSE) and Wildlife Feasibility Expenditure (WFE) measures discussed on page 984 of POE's WMP Are only calculated by POE for undergirding projects, and Can't be used to compare the cost-effectiveness of undergirding projects with any other projects. If POE does not unequivocally agree with "a" and "b" above, please explain why it does not. 	Tom Long	5/9/2023	5/11/2023	5/11/2023	0	NA	Appendix D	Areas for Continued Improvement	ACI POAE-22-34 - Review Process of Prioritizing Wildlife Mitigations

345	TURN	012	TURN_012	2	TURN_012_02	<p>The table below lists the wildfire mitigation programs proposed in the WMP and the GRC for the years 2023-2025 and describes efforts between the WMP and the GRC. The information provided below consists of summaries of larger decisions provided in either the WMP or the GRC.</p> <p>The population of wildfire mitigation programs includes:</p> <ul style="list-style-type: none"> The WMP Comprehensive Monitoring and Data Collection Mitigations (2023-2025 WMP, R1, pages 265-268). The WMP Operational Mitigations (2023-2025 WMP, R1, pages 268-271). The WMP System Resilience Mitigations (2023-2025 WMP, R1, pages 271-274), and Wildfire mitigations included in PG&E's Test Year (TY) 2023 GRC but not included in the 2023-2025 WMP. <p>The information in the table demonstrates that PG&E's wildfire mitigation plans continue to evolve from the way they first did in TY2023 GRC (June 30, 2021) to when we submitted our 2023-2025 WMP. Most of the mitigation programs forecast in the TY 2023 GRC are also included in the 2023-2025 WMP. There are some differences in the volume of work between the GRC and the WMP. From June 2021 through the 2023-2025 WMP, PG&E has: (1) reduced the wildfire mitigation programs that are assigned to target vegetation risk more effectively by using a new program such as Enhanced Vegetation Management (EVM) and reducing it with new V&M programs that are assigned to target vegetation risk more effectively in the highest risk areas of the High Fire Threat Designation (HFTD) Area (HFTDFRA). Additionally, PG&E refined the scope of work for other mitigations, as information from the models was updated and/or we learned more about the interactions of combined mitigation strategies. For example, in the GRC, PG&E noted that we planned to install 100 remote operated (RO) monitoring devices early in between 2023 and 2025, but that plans could change pending results of our assessment to address the risks of Motor Switch Operator (MSO) and integration with other remote automation and wildfire mitigation efforts.</p> <p>Wildfire Mitigation Program Mitigation Description 2023-2025 WMP 2023 GRC Comprehensive Monitoring and Data Collection Mitigations Detailed Asset Inspection Transmission Channel</p>	Tom Long	5/9/2023	5/12/2023	5/12/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Actions
346	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_04_01	1	CPUC - SPD (Safety Policy Division)_04_01	<p>Provide updated CPUC-reportable ignition data. SPD's current data set is attached for 2014-2021. The current data is an aggregated data set based on the data found here, under Fire Ignition Data. WSPS is requesting an updated data set to resolve four potential issues.</p> <p>1. WSPS generally understands that some ignitions may have been excluded at the time the data was submitted if the cause of the fire was unclear.</p> <p>2. Data may have been corrected once additional information was acquired.</p> <p>3. Data may have been entered inconsistently between years which makes it difficult to perform analysis.</p> <p>4. Update the data to the actual number of acres burned rather than a range of acres.</p> <p>Before submitting final agreed-upon data to WSPS, please set up a conference call to discuss the ignition data available and the potential areas the data may be formatted to be more useful to WSPS.</p>	Henry Sweet	5/9/2023	5/19/2023	5/17/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	1	NA	Appendix D	ACI PG&E-22-06 - Addressing Increase in Risk Events	Areas for Continued Improvement
347	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_04_02	2	CPUC - SPD (Safety Policy Division)_04_02	<p>In addition to the data requested above, please add the following data columns for each ignition:</p> <p>1."HFTD" - Classify each ignition as whether it was located in a "Zone 1", "Zone 2" or "Zone 3" or "Non-HFTD"</p> <p>2."Fire Potential Index" - Provide the Fire Potential Index for the location on the day of each ignition.</p>	Henry Sweet	5/9/2023	5/19/2023	5/17/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	Appendix D	ACI PG&E-22-06 - Addressing Increase in Risk Events	Areas for Continued Improvement
348	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_04_03	3	CPUC - SPD (Safety Policy Division)_04_03	<p>Provide the total number of circuit mile-days for each Fire Potential Index rating per year starting in 2014.</p> <p>YR: RD: RQ: RA: RS: RC 2014 NA NA NA 125512 70280 NA 2015 NA NA NA 49569 70280 NA 2016 NA NA NA 102511 70280 NA 2017 22 4672 227473 712006 119246 74228 NA 2018 162258 284540 181838 84488 21794 10756 2019 493024 187284 146304 171138 21671 17489 2020 320003 279966 120189 198877 29271 16184 2021 346373 227273 221443 184844 14449 27754 2022 520207 187787 202826 120403 12448 0 2023 361847 81441 35110 0 0</p>	Henry Sweet	5/9/2023	5/19/2023	5/17/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	8.3.6	Stratified Awareness and Forecasting	Fire Potential Index
349	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_04_04	4	CPUC - SPD (Safety Policy Division)_04_04	<p>Provide the total number of days per year for each Fire Potential Index rating for each Fire Index Area starting in 2014.</p> <p>YR: RD: RQ: RA: RS: RC 2014 NA NA NA 3651 725 NA 2015 10588 7607 804 454 214 NA 2016 17047 13658 4859 2054 1735 12 2017 22802 5648 654 403 89 345 2018 18621 8075 4865 584 1463 328 2019 16219 7750 7811 6168 828 78 2020 18322 4465 5062 3268 1791 0 2021 11550 358 11 23 0</p>	Henry Sweet	5/9/2023	5/19/2023	5/17/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	8.3.6	Stratified Awareness and Forecasting	Fire Potential Index
350	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_04_05	5	CPUC - SPD (Safety Policy Division)_04_05	<p>Provide the total number of circuit mile-days for each Fire Potential Index rating in the HFTD per year starting in 2014.</p> <p>YR: RD: RQ: RA: RS: RC 2014 NA NA NA 51312 14152 NA 2015 NA NA NA 49253 65420 NA 2016 NA NA NA 102511 15945 NA 2017 192078 792025 647958 102360 637454 NA 2018 310004 340489 120629 52334 40240 993 2019 430704 1472719 143200 148217 18187 154554 2020 289595 1427281 111258 170358 49457 141786 2021 346373 227273 221443 184844 14449 27754 2022 465510 137384 173764 116276 9883 2201 2023 378 31 38 132 159 0 0 0</p>	Henry Sweet	5/9/2023	5/19/2023	5/17/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	8.3.6	Stratified Awareness and Forecasting	Fire Potential Index
351	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_04_06	6	CPUC - SPD (Safety Policy Division)_04_06	<p>Explain how the utility is normalizing for the effect of weather and fuel conditions when understanding its performance each year on ignitions relative to changing weather and fuel conditions year over year.</p> <p>In general, we have been evaluating our performance metrics against indicators of weathered Fire Days (e.g., R3 and above) for the last several years as well as no flag warning days.</p> <p>To provide a more specific example, we are normalizing for weather in the EPSS effectiveness/performance in the following ways:</p> <ul style="list-style-type: none"> - For 2022, EPSS effectiveness was calculated by comparing the number of correct year ignitions that occurred when EPSS was enabled, divided by the average number of ignitions that occurred each year from 2018-2020 that would have had EPSS criteria set and a PFN back out. - In order to normalize for variations in fire potential conditions (as quantified by the Fire Potential Index), ignition counts for each year are divided by the total number of "Class Mile Days" for the year. - "Class Mile Days" for the year = "Circuit Mile Days" in HFTDFRA for a circuit, multiplied by the number of days the circuit had EPSS activated (or a circuit, multiplied by the number of days the circuit had EPSS activated for every day of the year, divided by every EPSS circuit, and added together to determine the total Circuit Mile Days for the year. - Note: If this calculation was performed mid-year, the normalization calculation was only performed through the target date used. E.g., if effectiveness was measured through 6/30/22, prior years would only be normalized by Circuit Mile Days through 6/30/18, 6/30/19, and 6/30/20 respectively. - The calculation accounts for the increased fire potential risk exposure on the system for each year, using the same criteria used to determine when EPSS effectiveness is appropriate. 	Henry Sweet	5/9/2023	5/19/2023	5/17/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	8.3.6	Stratified Awareness and Forecasting	Fire Potential Index
352	CaPA	Set WMP-24	CaPA_Ret_WMP-24	1	CaPA_Ret_WMP-24_01	<p>In reference to your responses to Question 11 of DR CalAccess-PGE-22(WMP-16), on the spreadsheet WMP-Discovery_2022_DR_01(2023) (tab: 16):</p> <ul style="list-style-type: none"> (a) On tabs (a) through (e), please identify the circuits with OHT to UC conversion projects that have no adjacent circuit lines. (b) On tabs (f) and (g), please identify the adjacent circuits that tie to the circuits with OHT to UC conversion projects in Tab (a) through (e). 	Holly Wehman	5/9/2023	5/12/2023	5/11/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	2	NA	8.1.2.2	Circuit Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
353	MORA	Data Request No. 5	MORA_Data_Request_No. 5	1	MORA_Data_Request_No. 5_01	<p>Is the side source of this POI data the machine learning algorithm described in WORM documentation? If not what other inputs go into the POI?</p> <p>Yes, the POI data shown is the result of the process and data described in section 8.1.2 and shown in Table PG&E 8.3.1-1.</p>	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFTD
354	MORA	Data Request No. 5	MORA_Data_Request_No. 5	2	MORA_Data_Request_No. 5_02	<p>The fire-pruned features (shrub contacts vs. values between neighboring poles) in PG&E's risk model outputs are a product of freely varying predictive covariates, including shrub characteristics and environmental distribution. Please see PG&E's response to Question 4 of the Data Request for an explanation of how historical outputs may influence fire-pruned features.</p> <p>As mentioned in the response to MORA 004 0004, "As the pool-by-pool level, the model does exhibit some level of noise that can result in high-risk hot spots in an area of generally lower risk pools. For this reason, workstation development is generally guided by circuit segment level aggregations that provide an improved indication of risk level."</p>	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	<p>https://www.pge.com/page_global/remote_monitoring_data_collection_mitigation</p> <p>https://www.pge.com/page_global/wildfire_mitigation</p> <p>https://www.pge.com/page_global/transmission_channel_mitigation</p>	0	NA	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFTD

372	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_01	1	CPUC - SPD (Safety Policy Division)_005_01	<p>1.Regarding costs inherent in PG&E's undergrounding grid hardening mitigation initiative projects, used in calculating cost efficiency and project feasibility as described in the 2023-2025 WMP (p. 343 and 346), to date and looking forward:</p> <p>a.What was the average cost per circuit mile for undergrounding in 2022, 2021, and 2020, in the HFDT, non-HFDT, and terrestrial areas?</p> <p>b.What is the average cost per circuit mile expected in 2023, 2024, and 2025, in the HFDT, non-HFDT, and terrestrial areas?</p> <p>c.For sub-parts a and b, explain expected, average year-over-year cost changes.</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
373	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_02	2	CPUC - SPD (Safety Policy Division)_005_02	<p>2.Provide the utility's cost estimate breakdown for undergrounding per mile. Provide the cost estimate in a commonly used cost-estimating format (e.g., Uniformat). If the utility uses a different format, provide external documentation on that format so SPD can understand the cost estimate.</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
374	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_03	3	CPUC - SPD (Safety Policy Division)_005_03	<p>3.How is PG&E incorporating subsurface variability (e.g., encountering hard rock, slopes, or other conditions presenting significant, physical obstacles) into undergrounding cost calculations? Provide an example.</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
375	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_04	4	CPUC - SPD (Safety Policy Division)_005_04	<p>4.PG&E has stated that CutTies trench depth requirements exceeded PG&E trench depth requirements. How has this impacted costs and planning? For planning purposes, what percentage of anticipated underground circuit miles will be impacted by the CutTies trench depth requirements for 2023-2025?</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
376	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_05	5	CPUC - SPD (Safety Policy Division)_005_05	<p>5.How does service life impact cost calculation?</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
377	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_06	6	CPUC - SPD (Safety Policy Division)_005_06	<p>6.What is the estimated multiplier for conversion from overhead (OH) line to underground (UG) line (e.g., 1.25 Mile OH converts to 1.50 Mile UG)?</p> <p>a.How was this conversion rate derived?</p> <p>b.How was it established as the accepted/preferred average for project planning purposes?</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
378	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_07	7	CPUC - SPD (Safety Policy Division)_005_07	<p>7.On pilot projects completed to date:</p> <p>a.What is the total actual cost per mile?</p> <p>b.What is the breakdown of project costs per mile? SPD expects to see the following components inside of the costs, although SPD understands they may not be broken down in the exact format:</p> <ul style="list-style-type: none"> -Bidding (e.g., primary the secondary line, service drop) -Design (e.g., fees for both internal and external designers) -Design Estimating (e.g., labor, materials, other costs) -Construction (e.g., permits, contracts, long-lead materials) -Construction (e.g., civil construction, electric construction) -Other (e.g., third party permits to homeowners so homeowners may complete work such as landscaping or road repair) 	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
379	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_08	8	CPUC - SPD (Safety Policy Division)_005_08	<p>8.Please provide WMP-Discovery2023_DR_TURN_007-0001A6010CONF.xlsx, used to address TURN Data Request 7, Question 1, discussing RSC calculation for system hardening.</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
380	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005_09	9	CPUC - SPD (Safety Policy Division)_005_09	<p>9.On page 151 of the 2023-2025 WMP PG&E states that the WDRM v3 ignition source is "PG&E's Historical Ignition Data (2015-2021) (approximately 2,500 CPUC-reportable ignitions and approximately 1,500 non-reportable ignitions)".</p> <p>a.Provide how PG&E is using the ~1,500 non-CPUC-reportable ignitions in its risk modeling.</p> <p>b.Provide the ~1,500 non-CPUC-reportable ignition data as a spreadsheet in format similar to the existing CPUC-reportable ignition data (see DR SPD_PGE_2023_004 and WDRM v3 Safety (v3) user guide Fire Ignition Data).</p>	Kevin Miller	5/15/2023	6/12/2023	6/12/2023	0	NA	6.2.1	Risk Methodology and Assessment	Risk and Risk Component Identification
381	CPUC - SPD (Safety Policy Division)	006	CPUC - SPD (Safety Policy Division)_006_01	1	CPUC - SPD (Safety Policy Division)_006_01	<p>1.After it was pointed out by SPD that there appeared to be a discrepancy in the methodologies used to calculate the risk mitigation effectiveness of EFRS, Undergrounding and Covered Conductor (CC), PG&E stated that CC is probably the most "realistic" mitigation effectiveness as the effectiveness based on empirical data and cross utility collaboration. EFRS is the second most as it is based on empirical data, and that UG is the least realistic mitigation effectiveness as it is based purely on SME judgement. PG&E agreed to update its undergrounding mitigation effectiveness percentage calculation to account for secondary/service drop (ignitions).</p> <p>a.Provide this analysis or provide an update on when this analysis will be finished and submit the analysis when it is finished.</p>	Kevin Miller	5/17/2023	5/22/2023	5/22/2023	0	NA	8.1.8.1.1	Grid Design, Operations and Maintenance	Protective Equipment and Device Settings

382	CPUC - SPD (Safety Policy Division)	008	CPUC - SPD (Safety Policy Division)_008_02	2	CPUC - SPD (Safety Policy Division)_008_02	2	CPUC - SPD (Safety Policy Division)_008_02	2	CPUC - SPD (Safety Policy Division)_008_02	2	CPUC - SPD (Safety Policy Division)_008_02	2	Kevin Miller	5/17/2023	5/20/2023	5/20/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
383	CPUC - SPD (Safety Policy Division)	007	CPUC - SPD (Safety Policy Division)_007_01	1	CPUC - SPD (Safety Policy Division)_007_01	1	CPUC - SPD (Safety Policy Division)_007_01	1	CPUC - SPD (Safety Policy Division)_007_01	1	CPUC - SPD (Safety Policy Division)_007_01	1	Henry Swart	5/17/2023	5/18/2023	5/18/2023	3	NA	8.1.2.1	Grid Design and System Hardening	Covered Conductor Installation - Distribution
384	OESB	008	OESB_008_01	1	OESB_008_01	1	OESB_008_01	1	OESB_008_01	1	OESB_008_01	1	Darius Smith	5/18/2023	5/23/2023	5/25/2023	8	NA	8.1.7	Open Work Orders	NA
385	OESB	008	OESB_008_02	2	OESB_008_02	2	OESB_008_02	2	OESB_008_02	2	OESB_008_02	2	Darius Smith	5/18/2023	5/23/2023	5/23/2023	2	NA	NA	NA	NA
386	OESB	008	OESB_008_03	3	OESB_008_03	3	OESB_008_03	3	OESB_008_03	3	OESB_008_03	3	Darius Smith	5/18/2023	5/23/2023	5/23/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
387	OESB	007	OESB_007_01	1	OESB_007_01	1	OESB_007_01	1	OESB_007_01	1	OESB_007_01	1	Alex Belomon	5/24/2023	5/30/2023	5/30/2023	0	NA	8.4.6	Emergency Preparedness	Customer Support in Wildfire and PSPS Emergencies
388	OESB	008	OESB_008_01	1	OESB_008_01	1	OESB_008_01	1	OESB_008_01	1	OESB_008_01	1	Darius Smith	5/25/2023	5/31/2023	5/31/2023	0	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections

389	OEIS	008	008	008_008	2	008_008_02	<p>Regarding Undergrounding Workplan Targets</p> <p>a. Explain why PG&E has reduced undergrounding targets provided within its workplan when comparing PG&E's 2022 WMP to the 2023-2026 WMP.</p> <p>b. Provide two versions of an updated Table PG&E.1.2.3 from PG&E's 2023-2026 WMP in which the Top 20% of risk based on risk model include scores from V2 and V3 respectively, opposed to V1E. Both mileage and % of Portfolio columns should be updated for each respective year and total.</p>	Dakota Smith	5/25/2023	5/1/2023	5/1/2023	1	NA	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
390	OEIS	008	008	008_008	3	008_008_03	<p>Regarding Inspection Find Rates</p> <p>a. Provide PG&E's work order find rate for distribution detailed and patrol inspections respectively, broken down by quarter from 2018 to 2022.</p>	Dakota Smith	5/25/2023	6/5/2023	6/5/2023	0	NA	8.1.3.2	Asset Inspections	Distribution Asset Inspections
391	OEIS	008	008	008_008	4	008_008_04	<p>Regarding PG&E's response to TURR DR 10 Question 4</p> <p>a. Provide Attachment 1 with the following additional columns:</p> <ol style="list-style-type: none"> Length of line (mi) V3 Risk Score V3 Risk Rank <p>b. If not included above, provide the V3 risk rank for the following CPZs, and explain why they are not included in the above:</p> <ul style="list-style-type: none"> BRANDWICK 111061300 GREEN VALLEY 210110554 GREEN VALLEY 210121006 GREEN VALLEY 210136820 JAMESON 115646348 LAURELES 11110200 MC ARTHUR 101101544 MORGAN 211100308 NARROWS 21022220 NARROWS 21022216 NARROWS 21022148 PANORAMA 11021532 PANORAMA 11021532 POSS MOUNTAIN 21012181 SHINGLE SPRINGS 21003322 SHINGLE SPRINGS 21009572 SILVERADO 21020600 TEMPLETON 21001600 WISSE 10222102 	Dakota Smith	5/25/2023	5/1/2023	5/1/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 - Review Process of Prioritizing Wildlife Mitigations
392	CPUC - SPD (Safety Policy Division)	008	008	CPUC - SPD (Safety Policy Division)_08	18EV	CPUC - SPD (Safety Policy Division)_08_Q18EV	<p>SPD appreciates the timely response and provision of grison data as requested, via "WMP Discovery2023_DR_SPD_08A-0001A001". However, it appears the data in Column (1) ("Outage Data") and V ("Outage Time") were provided in an incorrect format for rows beyond row 489. PG&E needs to reupload the data with correct outage date and time information. Please provide a corrected data file with rows beyond row 489 in the correct format. (2) as data format; (3) as time format; Rows 1-489 of the spreadsheet are in the correct format. Provide corrections below, accessible and readable.</p>	Kevin Miler	5/26/2023	5/31/2023	5/31/2023	1	NA	Appendix D	Areas for Continued Improvement	ACI PG&E-22-06 - Addressing Increase in Risk Events
393	OEIS	009	009	009_009	1	009_009_01	<p>001: Regarding PG&E's Secondary and Service Lines</p> <p>a. What percentage of PG&E's scoped 2023-2026 undergrounding projects have associated secondary or service lines?</p> <p>b. What is the ratio of undergrounding mileage to secondary or service lines for PG&E's scoped 2023-2026 undergrounding projects? (i.e. for every mile of the undergrounding, how many miles of secondary or service lines remain)</p>	Dakota Smith	6/1/2023	6/6/2023	6/6/2023	0	NA	8.1.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
394	CPUC - SPD (Safety Policy Division)	009	009	CPUC - SPD (Safety Policy Division)_09	1	CPUC - SPD (Safety Policy Division)_09_D1	<p>1) On pages 346-347 of the 2023 WMP PG&E discusses its risk reduction from undergrounding work and states the plan will allow PG&E to target risk reduction to the highest wildfire risk areas to eliminate approximately 18 percent of wildfire wildfire risk by the end of 2026. Please elaborate and show how PG&E calculated 18 percent in wildfire risk reduction from undergrounding work.</p> <p>a. What year baseline of risk did PG&E use?</p> <p>b. How much risk reduction was assumed for each year?</p> <p>c. Which version(s) of the WDRM was used?</p> <p>d. Was one version used for some years' risk reduction and another version used for other year(s)?</p> <p>e. Was any other model used to calculate risk reduction and if so, how?</p>	Kevin Miler	6/2/2023	8/8/2023	6/7/2023	1	NA	8.1.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution

395	CPUC - SPD (Safety Policy Division)	009	CPUC - SPD (Safety Policy Division)_009	2	CPUC - SPD (Safety Policy Division)_009_02	<p>ZFDn page 645 of its 2023 WMP PG&E states there has been a "Reduced size and duration of PSPS events" and claims "This is an indicator of increased operational maturity, flexibility, and system resilience."</p> <p>Is it, in fact, at least in part or perhaps implied, that PG&E increased operational maturity, flexibility, and resilience is also relying on other processes such as EPSS (See 191)?</p>	Kevin Miller	6/2/2023	6/8/2023	6/7/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	9.12	Public Safety Power Shutoff	Identification of Proactively De-Energized Circuits
396	CPUC - SPD (Safety Policy Division)	009	CPUC - SPD (Safety Policy Division)_009	3	CPUC - SPD (Safety Policy Division)_009_03	<p>3)PG&E has less than the required number of personnel with required training for several categories in Table 5-10: PG&E's Personal Training Programs for Wildfire and PSPS Events. Other tables related to staffing include, for example, all staffing will complete training on time and reasons for not being completed is the timing of safety required processes. Why are there less than required levels of personnel not completing the training?</p>	Kevin Miller	6/2/2023	6/8/2023	6/7/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.1.3	Grid Operations and Procedures	Personnel Work Procedures and Training in Conditions of Elevated Fire Risk
397	CPUC - SPD (Safety Policy Division)	009	CPUC - SPD (Safety Policy Division)_009	4	CPUC - SPD (Safety Policy Division)_009_04	<p>4)PG&E provides means to verify message receipt in Table 8-49: PG&E's Protocols for Emergency Communication to Stakeholder Groups. How accurate is this receipt information with regard to verifying messages are reaching intended recipients/in order to attend safety outcomes (e.g. including, but not limited to, messages not being sent to a new number of persons no longer in the household)?</p>	Kevin Miller	6/2/2023	6/8/2023	6/7/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.4.1	Emergency Preparedness	Protocols for Emergency Communications
398	CPUC - SPD (Safety Policy Division)	009	CPUC - SPD (Safety Policy Division)_009	5	CPUC - SPD (Safety Policy Division)_009_05	<p>5)PG&E issues notifications to AFNMB responders. How does PG&E know that these notifications are received and that contact information is up to date? Does PG&E have a way to continuously/periodically verify that the contact information on file is current to help ensure such important notices are being received by the intended recipients?</p>	Kevin Miller	6/2/2023	6/8/2023	6/7/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.5.3	Community Outreach and Engagement	Engagement With Access and Functional Needs Populations
399	CPUC - SPD (Safety Policy Division)	009	CPUC - SPD (Safety Policy Division)_009	6	CPUC - SPD (Safety Policy Division)_009_06	<p>6)PG&E mentions pre-pandemic in-person engagement. Does PG&E have data comparing pre-pandemic engagement to pandemic (in-person engagement efforts and among other things, attendance)? For instance, are there metrics/data regarding non-AFNMB and AFNMB?</p>	Kevin Miller	6/2/2023	6/8/2023	6/7/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.5.3	Community Outreach and Engagement	Engagement With Access and Functional Needs Populations
400	CPUC - SPD (Safety Policy Division)	009	CPUC - SPD (Safety Policy Division)_009	7	CPUC - SPD (Safety Policy Division)_009_07	<p>7)PG&E states that if an AFN customer does not answer the door, the notification is considered successful if a door hanger is left. What industry best practices is PG&E following that classifies a door hanger as a successful notification?</p>	Kevin Miller	6/2/2023	6/8/2023	6/7/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.5.3	Community Outreach and Engagement	Engagement With Access and Functional Needs Populations
405	CaPA	Set WMP-26	CaPA_Set WMP-26	1	CaPA_Set WMP-26_01	<p>(a) Please describe your general process or strategy for developing load forecasts?</p> <p>(b) Do you have a written process in place for developing load forecasts?</p> <p>(c) If the answer to (b) is "yes," provide a copy.</p> <p>(d) If the answer to (b) is "no," explain why not.</p>	Holly Wehman	7/27/2023	8/10/2023	8/10/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	2	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
406	CaPA	Set WMP-26	CaPA_Set WMP-26	2	CaPA_Set WMP-26_02	<p>(a) Do you consider load growth projections when you determine which system hardening measures to deploy for wildfire mitigation purposes?</p> <p>(b) If the answer to (a) is "yes," explain how load growth projections influence your mitigation selection process.</p> <p>(c) If the answer to (a) is "no," explain why not.</p>	Holly Wehman	7/27/2023	8/10/2023	8/10/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution
407	CaPA	Set WMP-26	CaPA_Set WMP-26	3	CaPA_Set WMP-26_03	<p>(a) When you plan system hardening projects for wildfire mitigation purposes, do you design projects to accommodate forecasted load growth?</p> <p>(b) If yes, what degree of load growth do you design for?</p> <p>(c) Describe your process for incorporating forecasted load growth into the design of system hardening projects (for instance, which scenarios of possible load growth are considered).</p>	Holly Wehman	7/27/2023	8/10/2023	8/10/2023	<p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p> <p>https://www.sps.com/page_pg&e/comm/psps/</p>	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment - Distribution

416	CaPA	Set WMP-27	CaPA_Set WMP-27	2	CaPA_Set WMP-27_02	<p>The article states the following: The California utility company PG&E spent about \$2.5 billion on a yearlong effort aimed at reducing wildfire risk by cutting or clearing more than a million trees growing alongside power lines. It now says that work was largely ineffective and is withdrawing the program, according to an internal analysis released by The Wall Street Journal and interviews with utility executives.</p> <p>a) Please list the utility executives who were interviewed by The Wall Street Journal as described in the article. b) For each executive listed in part (a), provide the date or dates the interview occurred. c) For each executive listed in part (a), please provide transcripts of the interview, if available.</p>	PG&E did not say that the work was largely ineffective. PG&E provided the following transcript to us, however, PG&E did not know how they were used by WSP. Please see attachment "WMP-Discovery2023_DR_California027-007-0001A001.pdf". a) The following PG&E executives were interviewed by The Wall Street Journal: -Samuel Singh, PG&E Executive Vice President, Operations and Chief Distribution Officer -Peter Arroyo, Senior Vice President, Major Infrastructure Delivery b) The interviews occurred on July 25, 2023. c) PG&E does not have transcripts of the interviews, but is providing the following audio recordings of the interviews. Please see attachment "WMP-Discovery2023_DR_California027-007-0001A001.pdf".	Holly Wetman	8/4/2023	8/18/2023	8/18/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california027-007-0001a001.pdf	1	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
417	CaPA	Set WMP-27	CaPA_Set WMP-27	3	CaPA_Set WMP-27_03	<p>The article states the following: PG&E now says that work was largely ineffective and is withdrawing the program, according to an internal analysis released by The Wall Street Journal and interviews with utility executives.</p> <p>a) Please explain what is meant by the statement quoted above that the work described in the article was "largely ineffective." b) Please describe "remains ineffective."</p>	a) PG&E did not say that the work was largely ineffective. PG&E provided the following transcript to us, however, PG&E did not know how they were used by WSP. Please see attachment "WMP-Discovery2023_DR_California027-007-0001A001.pdf". Please see the transcript of the interview provided in the response to question 416. b) We are unable to answer it as we have not reviewed it.	Holly Wetman	8/4/2023	8/18/2023	8/18/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california027-007-0001a001.pdf	0	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
418	CaPA	Set WMP-27	CaPA_Set WMP-27	4	CaPA_Set WMP-27_04	<p>The California utility giant says the program, which involved creating wide spaces between fire wires and potentially hazardous trees, resulted in a 13% reduction in ignitions during periods when fire risk is highest, typically in autumn, according to the company's internal analysis. Measured across a full year, the work resulted in a 7% reduction in ignitions.</p> <p>a) Please provide the analysis and data to support the 13% reduction in ignitions during periods when fire risk was highest. b) Please provide the analysis and data to support the 7% reduction in ignitions across a full year.</p>	a) PG&E arrived at the analysis of 13% based on our risk-to-life assessment approach for the Clearcut Risk Case. The analysis reflects the use of year-round ignition data, however, historical ignitions and wildfires led to more consequential fires occur during the autumn and are reflected in the contribution to the risk. For the purposes of this data request, PG&E summarized the analysis in attachment "WMP-Discovery2023_DR_California027-004A001.pdf". Here is a summary of the steps that arrived at each figure: -Based on the wildfire risk assessment for the years of 2015-2022, PG&E broke apart the HFTD Ignition by Distribution. -Of which, approximately 52% of HFTD ignitions occurred from vegetation contact, contributing to 61% of the risk. -Based on the scope of EVM, to effectiveness to mitigate ignitions occurred only on a subset of sub-sections of vegetation habitat. For example, Fall risk (No deficit) is 52% of the vegetation habitat but 9% EVM effectiveness. -Based on the weighted effectiveness of the habitat the type of vegetation habitat and the contribution to risk, EVM's effectiveness is expected to be approximately 15%, as seen on our PFI. b) The 7% reduction in ignitions during a full year was based on an ongoing EVM effectiveness study based on actual EVM locations against historical performance. This study (attached "WMP-Discovery2023_DR_California027-004A001.pdf") examined several datasets including ignition events, FPGS damage and hazard events and outage events. However, due to limited sample size of ignition data at EVM locations, outages and FPGS damages and hazards were used as a proxy for ignition reduction. This assessment done in August 2022 showed that EVM reduced likelihood by 10%. For the other weather outage types, the statistical significance was too small to draw conclusions from the results. PG&E then made an error and multiplied the 10% by the relative ignition ratio of 8.7% to arrive at an incorrect 7% ignition reduction in a year. This modification is appropriate to calculate the expected count of ignitions reduced in a year where EVM is performed but not to recalculate the percentage of ignitions reduced in a year. The correct appropriate value is to factor in the effectiveness of 20% relative reduction.	Holly Wetman	8/4/2023	8/18/2023	8/18/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california027-004a001.pdf	2	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
419	CaPA	Set WMP-27	CaPA_Set WMP-27	5	CaPA_Set WMP-27_05	<p>In response to data request California027-002WMP-14, question 9, on April 17, 2023, PG&E stated that it expected to complete the Substation Animal Abatement Effectiveness Study by July 18, 2023.</p> <p>a) Has PG&E completed the Substation Animal Abatement Effectiveness Study? b) If the answer to part (a) is no, please provide a copy of any report or other output from the Substation Animal Abatement Effectiveness Study. c) If the answer to part (a) is no, please state when PG&E currently expects to complete the Substation Animal Abatement Effectiveness Study.</p> <p>In response to data request "TUPN-PGE-3, question 2, on April 10, 2023, PG&E stated the following: Additionally, we are in the process of finalizing a study that is planned to be completed by June 30, 2023. This study will assess the recorded reliability improvements at locations that have been undergrounded and/or have been hardened with covered conductor.</p> <p>a) Has PG&E completed the study described above? b) If the answer to part (a) is yes, please provide a copy of any reports or other output from the study described above. c) If the answer to part (a) is no, please state when PG&E currently expects to complete the study described above.</p>	a) We have not yet completed our Substation Animal Abatement Effectiveness Study in partnership with Electric Power Research Institute (EPRI). b) Not applicable. c) The EPRI study is an ongoing industry benchmark data, which is taking longer than expected. Completion is expected by Q1 of 2024. a) We have not yet completed the above referenced study. b) Not applicable. c) PG&E currently expects to complete the study in October 2023.	Holly Wetman	8/4/2023	8/18/2023	8/18/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california027-007-0001a001.pdf	0	NA	8.1.2.12.2	Grid Design and System Hardening	Other Technologies and Systems - Substation Animal Abatement
420	CaPA	Set WMP-27	CaPA_Set WMP-27	6	CaPA_Set WMP-27_06	<p>In response to data request "TUPN-PGE-3, question 2, on April 10, 2023, PG&E stated the following: Additionally, we are in the process of finalizing a study that is planned to be completed by June 30, 2023. This study will assess the recorded reliability improvements at locations that have been undergrounded and/or have been hardened with covered conductor.</p> <p>a) Has PG&E completed the study described above? b) If the answer to part (a) is yes, please provide a copy of any reports or other output from the study described above. c) If the answer to part (a) is no, please state when PG&E currently expects to complete the study described above.</p>	a) We have not yet completed the above referenced study. b) Not applicable. c) PG&E currently expects to complete the study in October 2023.	Holly Wetman	8/4/2023	8/18/2023	8/18/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california027-007-0001a001.pdf	0	NA	NA	NA	NA
421	CaPA	Set WMP-27	CaPA_Set WMP-27	7	CaPA_Set WMP-27_07	<p>Please provide a copy of PG&E's 2022 Annual Electric Reliability Report. This should be similar to the documents provided to TUPN in response to "TUPN-PGE-3, question 2, on April 10, 2023.</p>	Please see "WMP-Discovery2023_DR_California027-007-0001A001.pdf" for a copy of our 2022 Annual Electric Reliability Report.	Holly Wetman	8/4/2023	8/18/2023	8/18/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california027-007-0001a001.pdf	1	NA	NA	NA	NA
422	CaPA	Set WMP-28	CaPA_Set WMP-28	1	CaPA_Set WMP-28_01	<p>PN-PGE-23-02 Page 35 of PG&E's response states, "PG&E is currently working to integrate OC with our execution processes to ensure quality during retail work execution." a) Describe how PG&E will integrate OC with execution processes. b) Describe the OC and QA processes in place at the beginning of 2023 for a detailed distribution inspection. Describe the process from start to finish, from any QA actions that occur prior to the distribution, continuing through the inspection, with ending with OC and QA. Be as thorough as possible. c) Describe the OC and QA processes that PG&E is proposing - in which OC will be integrated with execution processes - for a detailed distribution inspection. As specified in the previous part, describe the process from start to finish. d) State the percentage of distribution asset inspections that will undergo the integrated OC process that PG&E is proposing.</p>	a) OC is integrating with execution processes by completing OC at a shorter timeline than has been historically executed, allowing for timely opportunities for re-working inspection, during training, and making corrections, as necessary. By targeting prior to start to review and identify issues, PG&E can work with subcontractors with less re-work needed, resulting in less re-work needed, resulting in additional operational efficiencies (e.g., bringing the project back to the field location before the contractor has departed the area). b) Below is the process that OC and QA follow in 2023: 1) System Inspections (SI) execution completes the scheduled distribution asset inspection. 2) Completed inspection locations enter the queue of OC-eligible locations. 3) OC completes that review of the OC-eligible locations through desktop audit file reviews. - OC shares any OC failures with the SI execution team. - OC initiates rework locations to be re-inspected by the SI execution team. - WMP-Discovery2023_DR_California028-004 Page 2 c) OC and QA processes in place at the beginning of 2023: OC completes at least 50% confidence and 5% margin of error of checks described in the WMP-Discovery2023_DR_California028-004 Page 2. d) QA auditors perform the field audits as identified during the sampling process. e) QA audits are reviewed by QA subject matter experts (SME) for accuracy and completeness. f) Once approved by a QA SME, a QA audit location is marked as complete. - QA shares any findings data back to the SI and SI execution team. g) Please see the responses to subparts (a) and (b) for a description of our OC and QA processes. We intend to further integrate OC with execution, as described in subpart (a), during the second and third builds of the processes described in subpart (b). PG&E is continuing to explore additional opportunities for further integration of the execution and OC locations. h) PG&E is pursuing OC on 30% of all System Inspections following the to-be-integrated model within HFTD, barring any exceptions.	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california028-004.pdf	0	NA	8.1.6	Quality Assurance and Quality Control	NA
423	CaPA	Set WMP-28	CaPA_Set WMP-28	2	CaPA_Set WMP-28_02	<p>PN-PGE-23-02 Page 35 of PG&E's response states, "PG&E is currently working to integrate OC with our execution processes to ensure quality during retail work execution." a) How will PG&E track the quality of asset inspection work under the integrated OC process (which was previously tracked as a QC pass rate)? b) What metrics or measures will PG&E use to identify a possible downward trend in the quality of asset inspection work?</p>	a) The quality of asset inspection work is being tracked by using data on OC failures to inform dashboards and areas which give visibility into opportunities for improvement in retail work execution, during quality at the source. Where applicable, PG&E will also continue to track OC pass rates as we have done previously. b) PG&E utilizes various checks, among other tools, to track top finding types which are repeated with dashboards to formulate data-driven plans of action. Where applicable, PG&E will also continue to review QC pass rates.	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california028-004.pdf	0	NA	8.1.6	Quality Assurance and Quality Control	NA
424	CaPA	Set WMP-28	CaPA_Set WMP-28	3	CaPA_Set WMP-28_03	<p>PN-PGE-23-02 Table 8-7.1 (Revised) on page 35 of PG&E's response states that PG&E will perform field QA audits on 500 transmission locations and 1500 distribution locations by inspection type. For example, how many of these locations will audit detailed ground inspections, how many will audit aerial inspections, etc. a) Provide a breakdown of the 500 transmission locations by inspection type. For example, how many of these locations will audit detailed ground inspections, how many will audit aerial inspections, etc. b) Provide a breakdown of the 1500 distribution locations by inspection type. For example, how many of these locations will audit detailed ground inspections, how many will audit aerial inspections, etc.</p>	a) QA audits are reviewed by QA subject matter experts (SME) for accuracy and completeness. f) Once approved by a QA SME, a QA audit location is marked as complete. - QA shares any findings data back to the SI and SI execution team. g) Please see the responses to subparts (a) and (b) for a description of our OC and QA processes. We intend to further integrate OC with execution, as described in subpart (a), during the second and third builds of the processes described in subpart (b). PG&E is continuing to explore additional opportunities for further integration of the execution and OC locations. h) PG&E is pursuing OC on 30% of all System Inspections following the to-be-integrated model within HFTD, barring any exceptions.	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california028-004.pdf	0	NA	8.1.6	Quality Assurance and Quality Control	NA
425	CaPA	Set WMP-28	CaPA_Set WMP-28	4	CaPA_Set WMP-28_04	<p>PN-PGE-23-02 Table 8-7.1 (Revised) on page 35 of PG&E's response states higher OC pass rates in 2023 (as of July 25, 2023) than in 2022. a) For each of the four OC categories identified in Table PN-PGE-23-02.1, provide the sample size (as both a number and percentage of total) that has undergone OC in 2023 (as of July 25, 2023). b) List all factors to which PG&E attributes the improved OC pass rates. This may include changes to inspection programs, changes to training, changes to the OC process, different personnel/contractors, etc.</p>	Total as of 7/25/2023 OC Complete Quantity as of 7/25/2023 OC Complete of System Total as of 7/25/2023 Transmission Field 83.3% 41% 2,048 30.0% Desktop 52.1% 58.7% 22,500 78.48% Field 79.3% 67% 22,430 66.07% Desktop 58.3% 58.3% 44,832 62.1% WMP-Discovery2023_DR_California028-004 Page 2 c) The improved pass rates were the result of the process improvements we have made since Energy Safety issued the 2022 Retention Notice and which are described in both our 2022 and 2023 WMPs. In particular, the system inspections and OC organizations have weekly collaboration sessions to explore improvement opportunities, identify gaps in our processes, address challenges and review trends. Furthermore, in addition to the internal improvements we have made, as of July 10, 2023, we have created 16 additional PG&E locations. Inspector position across our service territory, as well as six supervisor positions. Inspector to complete the audit backlog. The process involves audit and validation in the	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	https://www.pge.com/page_global/common/pdf/446516/inline-view/pge/pge-discovery2023-dr-california028-004.pdf	0	NA	8.1.6	Quality Assurance and Quality Control	NA

426	CAIPA	Set WMP-28	CAIPA_Set WMP-28	5	CAIPA_Set WMP-28_05	<p>By passing Quality Control closer to the work and ensuring existing personnel to address any unique issues faster, we will ensure that less formal approval locations through OC will need to occur and issues will be identified up front. This OC will reduce efficiency in a formal based on the savings we anticipate through leading to sample less locations, and improvements to the quality of work up front which will result in a reduction in work and OC costs.</p> <p>By using the response to support (a) above for an explanation as to how our new OC process will ensure comparable quality, please provide additional information regarding the proposed OC process. Please also see our response to Question 4(b) for this data request for additional information regarding the proposed OC process.</p> <p>Quality is being tracked by using data on OC failures to affirm substation and jobs while job quality is being tracked by improvement in field work execution. Having quality as the source. When applicable, PGOE will continue to track OC jobs from the source. When applicable, PGOE will identify trends, among other things, to track top finding types which are reviewed with stakeholders to formulate action items for action. When applicable, PGOE will also continue to review OC data.</p> <p>The findings that retirement QVQA audits in 2022 were not solely focused on HFTD in addition, the ability to discern between HFTD and non-HFTD, or the various VM programs that were not identified and addressed, several past jobs are, was involved in 2022. This means that the identified number of 2022 QVQA audits is not directly comparable to the planned 2023 sample audits.</p> <p>Over the implementation of the Quality Management System (QMS) in the first months of 2023, and the statistically valid CA sampling methodology, PGOE is ensuring quality consistent across all jobs. The goal is to ensure that the quality of work is consistent between EPSS and Non-EPSS enabled lines.</p> <p>Given the elevated wildfire risk associated with EPSS enablement, PGOE prioritizes risk reduction in EPSS outages by dispatching the most available qualified resources to the location of the outage within 60 minutes. While this procedure is not intended to ensure no outages are prevented jobs have occurred, it contributes to fewer extended outages on EPSS enabled lines given qualified personnel are on site and are capable of installing restoration cables, perform damage assessments, and are able to plan or perform repairs and switching in order to restore electric service. In addition, the comparison to Non-EPSS outages in 2022 includes outages occurring during major storm events, where response and restoration can often be delayed due to safety issues for crews and the public, storm related environmental hazards and access issues, as well as requiring extensive repairs to damaged infrastructure that are typically associated with major storm events.</p> <p>The basis for the risk reduction calculations on the mitigations we will apply by the end of the WMP cycle to each circuit segment. The mitigations we are proposing for each segment are: 1) as set in Attachment "2023-04-09_PGE_2023_WMP_R2_Section 6.4.2_AAA01" submitted with the WMP on April 9, 2023. Attachment "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" shows we may achieve 84 percent risk reduction by the end of the WMP cycle. 2) The "Top Risk Table, Call P111893." Since filing the WMP, we have seen promising mitigation opportunities. 3) We are currently reviewing the WMP cycle performance elements that originally estimated. This may enable us to achieve approximately 94 percent risk reduction by the end of 2023. 4) Please see "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" tab "Risk_Reduction" Table 11.175.1.3.03. 5) The contribution of permanent risk reduction is approximately 29 percent of the 84 percent risk reduction and the contribution from Operational Mitigation is approximately 71 percent of the 84 percent risk reduction by the end of the WMP cycle.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Quality Assurance and Quality Control	NA
427	CAIPA	Set WMP-28	CAIPA_Set WMP-28	6	CAIPA_Set WMP-28_06	<p>Table 5.15 (Revised) on page 37 of PGOE's response states that 7,263 distribution locations underwent field QA audits in 2022, and 2,202 distribution locations in the HFTD will undergo field QA audits in 2023. Does that approximately one third of PGOE's overhead distribution lines are in the HFTDs (per Table 5.2 in PGOE's 2023-2025 WMP, please explain why the proposed audit sample size in 2023 is approximately one tenth of the actual audit sample size in 2022.</p> <p>The findings that retirement QVQA audits in 2022 were not solely focused on HFTD in addition, the ability to discern between HFTD and non-HFTD, or the various VM programs that were not identified and addressed, several past jobs are, was involved in 2022. This means that the identified number of 2022 QVQA audits is not directly comparable to the planned 2023 sample audits.</p> <p>Over the implementation of the Quality Management System (QMS) in the first months of 2023, and the statistically valid CA sampling methodology, PGOE is ensuring quality consistent across all jobs. The goal is to ensure that the quality of work is consistent between EPSS and Non-EPSS enabled lines.</p> <p>Given the elevated wildfire risk associated with EPSS enablement, PGOE prioritizes risk reduction in EPSS outages by dispatching the most available qualified resources to the location of the outage within 60 minutes. While this procedure is not intended to ensure no outages are prevented jobs have occurred, it contributes to fewer extended outages on EPSS enabled lines given qualified personnel are on site and are capable of installing restoration cables, perform damage assessments, and are able to plan or perform repairs and switching in order to restore electric service. In addition, the comparison to Non-EPSS outages in 2022 includes outages occurring during major storm events, where response and restoration can often be delayed due to safety issues for crews and the public, storm related environmental hazards and access issues, as well as requiring extensive repairs to damaged infrastructure that are typically associated with major storm events.</p> <p>The basis for the risk reduction calculations on the mitigations we will apply by the end of the WMP cycle to each circuit segment. The mitigations we are proposing for each segment are: 1) as set in Attachment "2023-04-09_PGE_2023_WMP_R2_Section 6.4.2_AAA01" submitted with the WMP on April 9, 2023. Attachment "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" shows we may achieve 84 percent risk reduction by the end of the WMP cycle. 2) The "Top Risk Table, Call P111893." Since filing the WMP, we have seen promising mitigation opportunities. 3) We are currently reviewing the WMP cycle performance elements that originally estimated. This may enable us to achieve approximately 94 percent risk reduction by the end of 2023. 4) Please see "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" tab "Risk_Reduction" Table 11.175.1.3.03. 5) The contribution of permanent risk reduction is approximately 29 percent of the 84 percent risk reduction and the contribution from Operational Mitigation is approximately 71 percent of the 84 percent risk reduction by the end of the WMP cycle.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Quality Assurance and Quality Control	NA
428	CAIPA	Set WMP-28	CAIPA_Set WMP-28	7	CAIPA_Set WMP-28_07	<p>Page 4 of PGOE's response states, "The likelihood of experiencing an extended outage (i.e., an outage of 12 hours or more) on EPSS enabled lines was 20% lower than for all PGOE outages in 2022, and for Medical Baseline or vulnerable customers the same percentage was 25% lower than for that same population during Non-EPSS outages in 2022."</p> <p>Has PGOE conducted a study or analysis of why the likelihood of experiencing an extended outage on EPSS enabled lines was 20% lower than for all PGOE outages in 2022?</p> <p>If the answer to part (a) is yes, please provide the results of the study or analysis.</p> <p>Has PGOE 2023-2025 WMP, PGOE responds to most outages on EPSS-enabled lines within 60 minutes. Describe the extent to which this expedited response time contributes to the likelihood of experiencing an extended outage on EPSS enabled lines being 20% lower than for all PGOE outages in 2022.</p> <p>The basis for the risk reduction calculations on the mitigations we will apply by the end of the WMP cycle to each circuit segment. The mitigations we are proposing for each segment are: 1) as set in Attachment "2023-04-09_PGE_2023_WMP_R2_Section 6.4.2_AAA01" submitted with the WMP on April 9, 2023. Attachment "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" shows we may achieve 84 percent risk reduction by the end of the WMP cycle. 2) The "Top Risk Table, Call P111893." Since filing the WMP, we have seen promising mitigation opportunities. 3) We are currently reviewing the WMP cycle performance elements that originally estimated. This may enable us to achieve approximately 94 percent risk reduction by the end of 2023. 4) Please see "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" tab "Risk_Reduction" Table 11.175.1.3.03. 5) The contribution of permanent risk reduction is approximately 29 percent of the 84 percent risk reduction and the contribution from Operational Mitigation is approximately 71 percent of the 84 percent risk reduction by the end of the WMP cycle.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
429	CAIPA	Set WMP-28	CAIPA_Set WMP-28	8	CAIPA_Set WMP-28_08	<p>Page 4 of PGOE's response states, "PGOE estimates that by the end of this WMP cycle, we will have reduced wildfire risk in the HFTD by 84% through a combination of permanent risk reduction (system resilience mitigations) and operational mitigations such as EPSS."</p> <p>State the basis for the estimate that, by the end of this WMP cycle, PGOE will have reduced wildfire risk in the HFTD by 84%.</p> <p>How does PGOE estimate the estimated 84% risk reduction figure into the amounts attributable to permanent risk reduction and operational mitigations.</p> <p>The basis for the risk reduction calculations on the mitigations we will apply by the end of the WMP cycle to each circuit segment. The mitigations we are proposing for each segment are: 1) as set in Attachment "2023-04-09_PGE_2023_WMP_R2_Section 6.4.2_AAA01" submitted with the WMP on April 9, 2023. Attachment "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" shows we may achieve 84 percent risk reduction by the end of the WMP cycle. 2) The "Top Risk Table, Call P111893." Since filing the WMP, we have seen promising mitigation opportunities. 3) We are currently reviewing the WMP cycle performance elements that originally estimated. This may enable us to achieve approximately 94 percent risk reduction by the end of 2023. 4) Please see "WMP-Discovery2023_DR_CaliforniaOC_028-020A0401-0401" tab "Risk_Reduction" Table 11.175.1.3.03. 5) The contribution of permanent risk reduction is approximately 29 percent of the 84 percent risk reduction and the contribution from Operational Mitigation is approximately 71 percent of the 84 percent risk reduction by the end of the WMP cycle.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	1	NA	8.1.8	Grid Operations and Procedures	NA
430	CAIPA	Set WMP-28	CAIPA_Set WMP-28	9	CAIPA_Set WMP-28_09	<p>Page 6 of PGOE's response states, "Indeed, we will eliminate the entire HFTD maintenance tag backing by 2025."</p> <p>In the above statement intended to refer to the HFTD maintenance backing, or the HFTD/HFRFA maintenance backing?</p> <p>If the answer to part (a) is the HFTD maintenance backing, state when PGOE will eliminate the entire HFTD/HFRFA maintenance backing.</p> <p>Does PGOE's plan for addressing maintenance tag backlog differentiate between tags in HFTD and tags in HFRFA?</p> <p>The above statement refers to the maintenance backing in HFTD/HFRFA locations.</p> <p>If applicable, please state the response to support (a) above.</p> <p>No, our plan does not differentiate between addressing maintenance tag backlog in HFTD and HFRFA locations, as it is related based on risk reduction and efficiency.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
431	CAIPA	Set WMP-28	CAIPA_Set WMP-28	10	CAIPA_Set WMP-28_010	<p>Figure 19A-PGE-23-04-1 on page 46 of PGOE's response shows that, under PGOE's proposed plan to address maintenance tags, the average open notification age will remain at or under two years. Under PGOE's previously proposed plan, the average open notification age would reach 4.5 years.</p> <p>Has PGOE performed a study or analysis of the average number of days that notifications will be open (per COG 03.03) under its proposed (in PGOE's response) and previous (in PGOE's March 2023 WMP) plans to address overdue maintenance?</p> <p>If the answer to part (a) is yes, please provide a table to figure to show the average number of days that maintenance tags will be overdue under the plans proposed in PGOE's March 2023 WMP and in PGOE's response.</p> <p>We, we have not performed a study or analysis with the specific criteria referenced in support of this request.</p> <p>If applicable, please state the response to support (a) above.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
432	CAIPA	Set WMP-28	CAIPA_Set WMP-28	11	CAIPA_Set WMP-28_011	<p>Footnote 16 on page 52 of PGOE's response states, "PGOE will develop a risk report efficiency by isolation zone bundle and not by individual tags. We will identify groupings of EC notifications in an isolation zone (similar to a circuit protection zone) and sum the wildfire risk of those notifications. That sum will be divided by the number of the highest risk EC tag to get the average wildfire risk score for the isolation zone bundle."</p> <p>How will PGOE determine the wildfire risk of individual notifications?</p> <p>How will PGOE determine the use cost of individual notifications?</p> <p>The scoring of individual tags is not performed differently than the scoring of tags to be included in isolation zone bundles. The open EC tags WDRM of risk scoring methodology begins with all open EC tags, specifically priorities E, F, F and F. Each tag will contribute all reduced deficiencies (RDs) associated with it. Once each tag has all the RDs pertaining to it, the RDAs are matched to the appropriate WDRM as a risk model to collect the wildfire risk scores from the associated model. Once each location has all the wildfire risk scores, the scores are summed for the individual tag. If there is a single tag in an isolation zone, it is effectively a bundle of one, and if there are multiple tags in an isolation zone, it is effectively a bundle of multiple.</p> <p>The use cost of individual notifications is based on the MAT code in which the notifications will be entered. The use cost is calculated divided between annual total costs by annual total unit completion in a single MAT. In addition to the historical average, PGOE will incorporate planned changes in use cost we will conduct the work, or known opportunities to component costs such as materials escalation (for example, the cost of line equipment).</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
433	CAIPA	Set WMP-28	CAIPA_Set WMP-28	12	CAIPA_Set WMP-28_012	<p>As described in footnote 17 (page 53) of the Revision Notice, we provide the following definition of an isolation zone segment: "An isolation zone segment is a portion of an isolation zone that can be de-energized in support of maintenance purposes." To provide further information, an isolation zone segment is between of these isolation devices, where an isolation device is a member of the set of Circuit Breaker, Dynamic Protective Device, Fuse, or Switch device.</p> <p>Is an isolation zone not identical to a circuit protection zone? (Footnote 16 on page 52).</p> <p>Is an isolation zone identical to a circuit protection zone?</p> <p>If the answer to part (b) is no, describe the differences.</p> <p>No, an isolation zone is not identical to a circuit protection zone. It is a Circuit Protection Zone (CPZ) is a segment of a distribution circuit between two protection devices. CPZs are also sometimes referred to as circuit segments. As described above, an isolation zone is an area between isolation devices (where a Dynamic Protective Device is one type of isolation device) that can be de-energized. Therefore, an isolation zone can be the same as a CPZ but typically is smaller as there are other types of isolation devices beyond the Dynamic Protective Device which would define the extent of a CPZ.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
434	CAIPA	Set WMP-28	CAIPA_Set WMP-28	13	CAIPA_Set WMP-28_013	<p>During a field validation of an open EC notification, which can occur during a systems inspection or field safety assessment, inspectors can recommend that a notification be cancelled by selecting the option by the Inspect App when they are in the field. If this option is selected, Inspectors further have an option to select between "Cancel - Duplicate," "Cancel - Not Valid," or "Cancel - all work found completed or critical NCRCA." Inspectors can also select "Comments and attach at least two photos that show the current condition of the asset."</p> <p>If yes, additional criteria or verification take place under PGOE's current practice. If an inspector recommends a cancellation, then an independent review and validation is performed prior to cancelling the tag.</p> <p>A Qualified Company Representative (QCR) will review the field inspector's comments and photos, as well as the original photo and comments from the tag, to validate the condition of the asset. After that, the QCR will either approve or disagree with the recommendation and provide any additional supporting comments for transparency.</p> <p>If not applicable, please see the responses to questions 8) and 9) above.</p> <p>There are two main drivers in the forecasted reduction in Level 2 tags: (1) the amount of detailed ground inspections planned in Tier 1 and (2) the expected first year for 2024 and 2025 versus 2023.</p> <p>TABLE 19A-PGE-23-04-1 (page 47 of the Revision Notice) shows PGOE's planned inspections by inspection type and by HFRFA/HFTD tier. For 2023, the planned 2023-2025 detailed ground inspections in Tier 1 versus 2024 and 2025 are 122,000 versus 100,000 and 100,000 respectively. This reduction in the number of Tier 2 inspections is mainly due to the reduction in the number of Tier 2 inspections planned in 2024 and 2025 compared to 2023.</p> <p>PGOE anticipates this will allow future years find rates with the first year 2023.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
435	CAIPA	Set WMP-28	CAIPA_Set WMP-28	14	CAIPA_Set WMP-28_014	<p>Table 19A-PGE-23-04-1 on page 59 of PGOE's response estimates PGOE will create 70,200 level two tags in 2023, 54,000 level two tags in 2024, and 55,700 level two tags in 2025.</p> <p>State the basis for the reduced number of level 2 tags PGOE forecasts being created in 2024 and 2025 compared to 2023.</p> <p>There are two main drivers in the forecasted reduction in Level 2 tags: (1) the amount of detailed ground inspections planned in Tier 1 and (2) the expected first year for 2024 and 2025 versus 2023.</p> <p>TABLE 19A-PGE-23-04-1 (page 47 of the Revision Notice) shows PGOE's planned inspections by inspection type and by HFRFA/HFTD tier. For 2023, the planned 2023-2025 detailed ground inspections in Tier 1 versus 2024 and 2025 are 122,000 versus 100,000 and 100,000 respectively. This reduction in the number of Tier 2 inspections is mainly due to the reduction in the number of Tier 2 inspections planned in 2024 and 2025 compared to 2023.</p> <p>PGOE anticipates this will allow future years find rates with the first year 2023.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA
436	CAIPA	Set WMP-28	CAIPA_Set WMP-28	15	CAIPA_Set WMP-28_015	<p>Page 13 of PGOE's response states, "For example, we have found certain splices (e.g., splices within two feet of an insulator, and number of splices per span) do not pose an increased risk of ignition. Instead of issuing a notification risk maintenance tag, the splices are better addressed by the asset management team as they are a potential indicator of a holistic asset health issue."</p> <p>Describe how the asset management team will track splices if a maintenance tag is not issued and therefore do not have a maintenance tag.</p> <p>Describe the circumstances under which PGOE would re-assign a tag that does not pose an ignition risk and therefore do not have a maintenance tag.</p> <p>How does PGOE's asset management team use splices as an indicator of "holistic asset health" and under what circumstances does the asset management team take action based on the tag?</p> <p>As described in our responses to the Revision Notice, we are analyzing the information collected during inspections and comparing it to the actual condition of the asset. If we find that certain conditions, such as splices within two feet of an insulator, are not a good indicator of an asset health, we will use the following options to document the condition as an asset health condition: (1) record the notification as an different priority EC tag (e.g., 4th priority) or (2) record the notification as an ER tag instead of an EC tag. ER tags are currently used to track proactive maintenance work that is planned for future years (i.e., planned transformer maintenance to address asset health condition).</p> <p>PGOE anticipates this will allow future years find rates with the first year 2023.</p> <p>PGOE leverages the conductor composite model to determine which conductors have the highest likelihood of failure. Asset health conditions such as "splices within two feet" and the "number of splices in a span" will become an input data point for the machine learning-based model to improve the risk prioritization of the conductor asset base. The overall conductor asset health risk prioritization is then used as part of the integrated Grid Planning process to prioritize bundled circuit-based upgrades of DSE&S asset base.</p>	Holly Wehmen	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.8	Grid Operations and Procedures	NA

437	CaPA	Set WMP-28	CaPA_Set WMP-28	16	CaPA_Set WMP-28_016	<p>RN-PCAE-23-05 Page 68 of PCAE's response states, "There are 79 circuit segments that are not included in an underground plan and have not been hardened. In place of these circuit segments, PCOE chose to add different circuit segments to the portfolio that could be undergrounded more efficiently. PCOE manages wildfire risk on these 79 circuit segments through its portfolio of Comprehensive Monitoring and Data Collection and Operational Mitigation described above." a) Has PCOE considered overhead hardening on the 79 circuit segments as mitigation in this section? b) If the answer to part (a) is yes, why did PCOE not list overhead hardening as a mitigation for these 79 circuit segments? c) If the answer to part (a) is no, explain why not.</p>	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of electric lines and/or equipment
438	CaPA	Set WMP-28	CaPA_Set WMP-28	17	CaPA_Set WMP-28_017	<p>RN-PCAE-23-05 Table RN-PCAE-23-05-2 on page 77 of PCOE's response compares the mileage in the top 20% of WFE, the top 20% of WORM, and the top 20% of WORM-2. It is unclear from PCOE's response to AC PCOE-23-04 and its 2023-2025 WMP that the list of circuit segments ranked by WFE is based on the risk score from WORM-2 and the feasibility score of undergrounding. In other words, the formula below, the WORM-2 risk score appears in the numerator and the feasibility of undergrounding appears in the denominator. a) Please confirm or correct the understanding above. b) Does the list of circuit segments ranked by WFE incorporate risk scores from WORM-2? If yes, describe how.</p>	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of electric lines and/or equipment
439	CaPA	Set WMP-28	CaPA_Set WMP-28	18	CaPA_Set WMP-28_018	<p>RN-PCAE-23-05 Page 73 of PCOE's response states, "Based on our further evaluation, the preliminary updated mitigation effectiveness for undergrounding, considering the residual risk from secondary and sense lines, is approximately 97.7 percent compared to the 99 percent." a) Describe how PCOE calculated the effectiveness of 97.7 percent. b) Provide supporting data and worksheets for your response to part (a).</p>	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	1	NA	8.2.2	Vegetation Management and Inspections	Vegetation Management and Inspections
440	CaPA	Set WMP-28	CaPA_Set WMP-28	19	CaPA_Set WMP-28_019	<p>RN-PCAE-23-07 Page 103 of PCOE's response states, "The TAT was developed to be the scope of the EVM Program. With the conclusion of EVM, PCOE has decided to discontinue the use of the TAT and will be moving forward with utility undergrounding as required by the TRAQ form." a) Given that, beginning in 2024, the scope of FTI will be similar to the scope of EVM (approximately 1,800 miles), please explain why the TAT and TRAQ form are similar. b) Describe the ways in which the TAT and TRAQ form are similar. c) Describe the ways in which the TAT and TRAQ form are different.</p>	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	2	NA	8.2.2	Vegetation Management and Inspections	Vegetation Management and Inspections
441	CaPA	Set WMP-28	CaPA_Set WMP-28	20	CaPA_Set WMP-28_020	<p>RN-PCAE-23-07 Page 104 of PCOE's response states, "Given that we began working with the ISA TRAQ in 2023, data does not exist to objectively compare effectiveness differences between ISA TRAQ and the TAT." a) Does PCOE plan to perform a study or analysis to compare the effectiveness of the TAT and the ISA TRAQ? This may include, for example, performing a subset of FTI work using both tools. b) If the answer to part (a) is yes, please describe the study PCOE plans to perform, and the date PCOE plans to conclude the study. c) If the answer to part (a) is no, please explain why not.</p>	Holly Wetman	8/10/2023	8/15/2023	8/15/2023	0	NA	8.2.2	Vegetation Management and Inspections	Vegetation Management and Inspections
442	OES	011	OES_011	1	OES_011_011	<p>Regarding distribution installed ground inspections a. On page 444 of its revised WMP, PCOE states that it will shift from inspecting all HTD for 3 distribution assets annually and for 2 assets every three years. In inspecting severe and extreme consequence plant maps annually and for 2 assets every three years. b. Please provide the number of assets/structures using the same asset/structure definition as WMP R2 table 3.1.3.3, page 455 located in HTD for 2. c. Please provide the number of assets/structures (using the same asset/structure definition as WMP R2 table 3.1.3.3, page 455 located in HTD for 2.</p>	Dezsi Smith	8/18/2023	8/23/2023	8/23/2023	0	NA	8.1.3.2.1	Asset Inspections	Detailed Ground Inspection
443	OES	011	OES_011	2	OES_011_012	<p>Regarding PCOE's Grid Design and Maintenance Quality Control a. In its Revision Notice Response, PCOE states that it is "working to integrate OC with [its] execution processes... this approach will create real-time feedback to coach and guide workers..." and that minimum sample sizes and pass rate target "would mirror PCOE's flexibility" (Page 39). b. Describe this approach, including the similarities and differences from the current and previous approach to OC. c. Provide the timeline for integrating this approach. d. Provide the estimated sample size for this approach. These sample sizes may either represent physical assets PCOE will OC per year (e.g., PCOE will OAC 3,000 circuit miles in each year of the WMP cycle), or how PCOE determines the sample size for OC (i.e., the criteria for when and where PCOE performs OC). e. Describe any performance metrics PCOE has implemented related to this approach and any plans for</p>	Dezsi Smith	8/18/2023	8/23/2023	8/23/2023	0	NA	8.1.6	Quality Assurance and Quality Control	NA
444	OES	011	OES_011	3	OES_011_013	<p>Regarding PCOE's Vegetation Management Quality Control a. In its Revision Notice Response, PCOE states that it is "working to integrate OC with [its] execution processes... this approach will create real-time feedback to coach and guide workers..." and that minimum sample sizes and pass rate target "would mirror PCOE's flexibility" (Page 39). b. Describe this approach, including the similarities and differences from the current and previous approach to OC. c. Provide the timeline for integrating this approach. d. Provide the estimated sample size for this approach. These sample sizes may either represent physical assets PCOE will OC per year (e.g., PCOE will OAC 3,000 circuit miles in each year of the WMP cycle), or how PCOE determines the sample size for OC (i.e., the criteria for when and where PCOE performs OC). e. Describe any performance metrics PCOE has implemented related to this approach and any plans for</p>	Dezsi Smith	8/18/2023	8/23/2023	8/23/2023	0	NA	8.1.6	Quality Assurance and Quality Control	NA
445	CPUC - SPD (Safety Policy Division)	010	CPUC - SPD (Safety Policy Division)_010_01	1	CPUC - SPD (Safety Policy Division)_010_01	<p>Provide the attached spreadsheet with information summarized from Table 11 of PCOE's most recently submitted DOR (01/2023 submitted Aug 1).</p>	Kevin Miller	8/24/2023	8/10/2023	8/10/2023	1	NA	QOR	NA	NA
446	OES	012	OES_012	1	OES_012_011	<p>001- Regarding PCOE's Response to RN-PCAE-23-07 a. Considering that there are no fields in OeVM to collect Level 2 inspection data, 1 the TRAQ form will not be updated and the Focused Tree Inspection procedure does not require inspection to take a photo of completed TRAQ forms, 3 what data and information do PCOE plan to use to perform field-based quality control on Level 2 inspections performed under Focused Tree Inspection? b. Describe the quality control procedure for Focused Tree Inspections. c. How are the paper TRAQ forms generated through Focused Tree Inspections collected and stored by PCOE? d. For Focused Tree Inspections, Routine, and Second Patrol e. How and where does the inspector document factors that contributed to an inspector's designation of a tree as a hazard, or not a hazard, and any resulting abatement prescription? f. If PCOE does not record this information, justify why it does not record this information. g. In response to remedy, PCOE states that it plans to only inspect part of its Area of Concern through the Focused Tree Inspection. What PCOE's response states that it plans to only inspect part of its Area of Concern if it only plans to perform Focused Tree Inspections on 43% of those miles the end of 2024? h. In PCOE's response to Data Request WMP-2023-PCAE-001, Question 2, PCOE describes abatement it made to its Tree Assessment Tool (TAT) (2/21/23). i. Was this updated TAT ever operationalized? j. If not, when was it operationalized? (i.e., used by all inspectors in the field to perform tree risk assessment under EVM) k. If not, why was it not operationalized? l. Provide the most recent version of updated TAT, even if that version was not operationalized. m. Provide any reports regarding the 2022 update of the TAT, including, but not limited, documentation of methodology, application, internal review, and external review. n. In response to remedy, PCOE states that the current residual risk due to Tree Removal Inventory lists is 7% of vegetation risk in the HTD-4 Area. Does PCOE's analysis regarding the "openness of vegetation" assume that 100% of the vegetation risk in the HTD can be mitigated? o. If not, what percentage of vegetation risk does PCOE estimate it can mitigate in the HTD? p. In response to remedy, PCOE states that it expects its updated Distribution Inspection Procedure to achieve improved risk reduction of approximately 3 percent over the legacy Distribution Inspection Procedure 5 Populate the empty cells of the following table: Scenario Risk Rank Budget</p>	Dezsi Smith	8/30/2023	9/27/2023	9/27/2023	4	NA	8.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
447	OES	012	OES_012	2	OES_012_012	<p>002- Regarding PCOE's Response to RN-PCAE-23-03 a. In its response relating to EPSS, PCOE states that it does not have detailed mitigation effectiveness analysis at this time. These analyses are being developed based on subject matter expertise while empirical data is being collected. b. Explain what is meant by this statement, particularly given PCOE has provided effectiveness estimates for EPSS in its PCOE 2023-2025 WMP. PCOE provides an estimated effectiveness of 68% for EPSS in 2022. Is this risk in its procedure effectiveness estimated? If not, why? c. How does PCOE calculate an estimated effectiveness of 68% for EPSS in 2022. Is this risk in its procedure effectiveness estimated? If not, why? d. When does PCOE plan on calculating a more updated effectiveness estimate? What factors is PCOE including in the calculation?</p>	Dezsi Smith	8/30/2023	9/5/2023	9/5/2023	0	NA	8.1.2.10	Grid Design and System Hardening	Downed Conductor Detection Devices

448	OEBIS	012	OEBIS_012	3	OEBIS_012_03	<p>Q03. Regarding PGE's Responses to RHP-FOIA-20-04:</p> <p>a. Table RHP-FOIA-20-04-1 uses "Aged Backing Lines Excavator" and "Aged Backing Lines Remaining." Provide these same numbers for each year, broken down by resource (spine risk, spigot risk, and non-spigot risk respectively).</p> <p>b. Since PGE's violation of FFRs, provide the following data broken down annually:</p> <ol style="list-style-type: none"> The number of instances in which PGE cancelled a work order in response to an FFR. The number of instances in which PGE cancelled a work order in response to an existing work order in response to an FFR. The number of instances in which PGE combined work orders in response to an FFR. <p>d. Details on how PGE tracks the above (i) through (c) within its database. If PGE does not currently track each response, please explain why.</p> <p>e. Will PGE continue to conduct annual FFRs on all Priority E tags?</p> <p>f. Provide a list of PGE's workorders for workforce and resources relating to handling its backlog. This should include, but not be limited to:</p> <ol style="list-style-type: none"> Routing, creating, and obtaining workforce and equipment. Resource limitations, such as obtaining needed equipment and supply chain issues, and how PGE intends on handling them. Training for personnel working on backlog, including details on how to identify, prioritize, and respond to repairs. <p>g. How is PGE tracking and prioritizing spigot risk tags that are Priority E or F?</p>	Davina Smith	8/30/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	0	NA	8.1.2	Open Work Orders	Open Work Orders - Distribution Tags
449	OEBIS	012	OEBIS_012	4	OEBIS_012_04	<p>Q04. Regarding PGE's Responses to RHP-FOIA-20-05:</p> <p>a. For the 79 circuit segments not included in an underground plan and that has not been hardened, provide the following information as appropriate:</p> <ol style="list-style-type: none"> Circuit Name Circuit segment ID/ Name VZ Risk VZ Risk Ranking VZ Risk (if available) V4 Risk Ranking V4 Risk (if available) WFE Ranking Feasibility Score <p>b. Reason for why the circuit segment is not included in underground plan</p> <p>c. Other mitigation options being used for the circuit segment currently</p> <p>d. Other mitigation options being considered for the circuit segment in the future, if such differs from (a)</p>	Davina Smith	8/30/2023	9/5/2023	9/5/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	1	NA	7.2.1	Wireline Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities
450	CuPA	Set WMP-20	CuPA_Set WMP-20	1	CuPA_Set WMP-20_01	<p>Page 35 of PGE's response states, "PGE is currently working to integrate OC with our execution processes to ensure quality during initial work execution."</p> <p>a) Provide the agreements dated by which PGE plans to implement its integrated OC process, describe above. Please provide any internal protocols, presentations, reports, or other documentation that describe PGE's proposed integrated OC process.</p> <p>b) Please provide any procedures, hardware, checks, or job aids that personnel will use when implementing PGE's proposed integrated OC process.</p>	Holy Weisman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	0	NA	8.1.6	Quality Assurance and Quality Control	NA
451	CuPA	Set WMP-20	CuPA_Set WMP-20	2	CuPA_Set WMP-20_02	<p>PGE's responses to Data Request No. Cal Advocates_088-0001a on August 15, 2023, states "OC is integrating with execution processes by completing OC as a parallel timeline that has been historically associated, allowing for smaller opportunities for re-booking inspectors, sharing learnings, and making corrections, as necessary."</p> <p>(i) What was the minimum, maximum and average OC completion timeline for detailed ground distribution inspections in 2022?</p> <p>(ii) What was the minimum, maximum and average OC completion timeline for detailed ground distribution inspections in 2021?</p> <p>(iii) What was the minimum, maximum and average OC completion timeline for detailed ground distribution inspections in 2022?</p> <p>(iv) What was the minimum, maximum and average OC completion timeline for detailed ground distribution inspections after integration with execution processes?</p>	Holy Weisman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	1	NA	8.1.6	Quality Assurance and Quality Control	NA
452	CuPA	Set WMP-20	CuPA_Set WMP-20	3	CuPA_Set WMP-20_03	<p>PGE's responses to Data Request No. Cal Advocates_088-0001a on August 15, 2023, states "OC is integrating with execution processes by completing OC as a parallel timeline that has been historically associated, allowing for smaller opportunities for re-booking inspectors, sharing learnings, and making corrections, as necessary."</p> <p>(i) Does PGE have an internal standard for the maximum amount of time between a detailed ground distribution inspection and subsequent OC?</p> <p>(ii) If the answer to part (a) is yes, provide any procedures, hardware, checklist, or job aids that define the amount of time between a detailed ground distribution inspection and subsequent OC under PGE's current OC process.</p> <p>(iii) If the answer to part (a) is no, how does PGE determine when to perform OC following a detailed ground distribution inspection?</p>	Holy Weisman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	0	NA	8.1.6	Quality Assurance and Quality Control	NA
453	CuPA	Set WMP-20	CuPA_Set WMP-20	4	CuPA_Set WMP-20_04	<p>Page 63 of PGE's response states, "For example, we have found certain splines (e.g., splines within two feet of insulator) and number of splines per asset do not pose an increased risk of ignition. Instead of issuing a non-ignition risk maintenance task, the splines are better addressed by the asset management team as they are a natural condition of a healthy asset health issue."</p> <p>PGE's 2021 Electric Asset Management Plan for Electric Distribution Overhead Assets (referred to as AMP), provided in response to Data Request No. GSDR Cal Advocates-PGE-Overhead Power Lines, questions 5 on June 29, 2022, showed a high correlation between the presence of splines and the likelihood of wire down for small conductors (i.e., 4/0, 3/0, 2/0, 1/0).</p> <p>(i) Has PGE performed a study on the correlation between the presence of splines and the likelihood of wire down for larger conductors (e.g., 7/0, 6/0, 4/0)? If yes, please provide the results of the study.</p> <p>(ii) If the answer to part (a) is no, does PGE plan to perform such a study? If yes, please provide the approximate date the study will be completed.</p> <p>(iii) If the answer to part (a) is no, please explain why.</p> <p>(iv) Has GSDR/PGE come to the conclusion that the number of splines per asset did not pose an increased risk of ignition?</p> <p>(v) Please provide any studies, analyses, or reports to support your response to part (b).</p> <p>(vi) Please provide any studies, analyses, or reports to support your response to part (c).</p> <p>(vii) PGE's response earlier above refers to "natural splines" and "asset health examples. Are there other types of splines that PGE has concluded "do not pose an increased risk of ignition"?</p> <p>(viii) If the answer to part (b) is yes, please list all such types of splines.</p>	Holy Weisman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	1	NA	NA	NA	NA
454	CuPA	Set WMP-20	CuPA_Set WMP-20	5	CuPA_Set WMP-20_05	<p>(i) Please provide a copy of PGE's 2022 Electric Asset Management Plan for Electric Distribution Overhead Assets. If available, if not available, please provide the date it will become available.</p> <p>(ii) Please provide a copy of PGE's 2023 Electric Asset Management Plan for Electric Distribution Overhead Assets. If available, if not available, please provide the date it will become available.</p>	Holy Weisman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	0	NA	NA	NA	NA
455	CuPA	Set WMP-20	CuPA_Set WMP-20	6	CuPA_Set WMP-20_06	<p>Page 107 of PGE's response states, "Detection of partial voltage conditions allows Control Center Operators to Dispatch Field personnel to locations where equipment may be in a condition that increases wildfire risk. This technology helps PGE detect and locate a wire down condition within minutes that may reduce the amount of time a line is energized while down (before it can cause an ignition) and allow field responders to extinguish wire-down-related ignitions more quickly."</p> <p>(i) Has PGE performed a study to determine whether detection of partial voltage conditions has reduced the amount of time a line is energized while down? Please provide the approximate date the study will be completed.</p> <p>(ii) If the answer to part (a) is no, does PGE plan to perform such a study? Please provide the approximate date the study will be completed.</p> <p>(iii) If the answer to part (b) is no, please explain why.</p> <p>(iv) In late January 2022, how many wire down events has PGE experienced in its HFTD/PRA areas on lines that have partial voltage detection enabled?</p> <p>(v) For the events in part (b), what was the average time the lines remained energized while down?</p>	Holy Weisman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p> <p>https://www.pge.com/web/guest/foia/requests/foia-2023-01234</p>	0	NA	8.2.1.4	Vegetation Management and Inspections	Field in Mitigation

456	CaPA	Set WMP-20	CaPA_Set WMP-20	7	CaPA_Set WMP-20_07	<p>a) To achieve EPSS's ignition reduction benefit, EPSS protection settings are designed to provide (1) faster fault detection and clearing within (2) reduced bus single-phase operation, and (3) higher impedance fault detection. Accordingly, by definition, EPSS device protection settings must overreach sensitive location zones on our circuits (such as fused taps) and detect faults beyond fuses and de-energize all three phases within 100ms when a fault is detected, such as a tree or branch coming into contact with our lines.</p> <p>With EPSS, outages that would otherwise occur but normally be isolated on smaller zones within our system (e.g., such as fused tap outage) may result in larger zones or circuit-level outages impacting a greater number of customers across a larger geographic area but not necessarily resulting in an increase in the number of outages. Accordingly, these outages generally would occur under normal operating conditions but be electrically isolated to smaller portions of our system. In a real world setting, these outages would be expected to impact customer sensitive switching activities associated with planned work. In those instances, we have protocols in place with our existing permit and restoration procedures to expedite the restoration of those outages.</p> <p>The number of outages in the HFRA from May to October decreased significantly from 2021 to 2022. Additionally, the number of outages in the HFRA during the same time period was only slightly higher in 2022 (6,140 outage events) than in 2020 (6,128 outage events) before EPSS was enabled.</p> <p>b) Please provide any supporting studies, analyses, reports, or other documentation to support your response to part (a).</p>	Holly Wetman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.epsc.com/page_public/conservation/epss/ https://www.epsc.com/page_public/conservation/epss/ https://www.epsc.com/page_public/conservation/epss/</p>	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings	
457	CaPA	Set WMP-20	CaPA_Set WMP-20	8	CaPA_Set WMP-20_08	<p>Page 2 of PG&E's reply comments filed on September 1, 2023, states, "The number of outages in the HFRA from May to October decreased significantly from 2021 to 2022. Additionally, the number of outages in the HFRA during the same time period was only slightly higher in 2022 (6,140 outage events) than in 2020 (6,128 outage events) before EPSS was enabled. Per PG&E's quarterly data reports, PG&E generally experienced fewer RFW circuit mile days in 2022 than in 2020."</p> <p>2020: 2026 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p> <p>a) No, PG&E has not performed a study regarding weather-normalized HFRA outages from 2020, 2021, and 2022 relative to our EPSS Reliability Mitigation Program(s).</p> <p>b) Not applicable, please see the response to subpart (a) above.</p> <p>c) Not applicable, please see the response to subpart (a) above.</p> <p>d) PG&E has been using the method set out in the Institute of Electrical and Electronics Engineers standard IEEE 1366 (IEEE 1366) of weather normalized outages. This has been PG&E's method of excluding outages that occur on very extreme days, such as very high temperature days, significant storm days, etc. This methodology is the industry standard practice for identifying trends in reliability metrics.</p>	Holly Wetman	9/7/2023	9/27/2023	9/27/2023	<p>https://www.epsc.com/page_public/conservation/epss/ https://www.epsc.com/page_public/conservation/epss/ https://www.epsc.com/page_public/conservation/epss/</p>	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities	
458	OES	013	OES_013	1	OES_013_01	<p>It is unclear from statements in a revised 2023-2025 WMP (printed 8/7) whether PG&E uses probability distributions or maximum values in its risk score calculations—albeit (L)RE multiplied by consequences (C)RE. On page 173-174 (section 8) PG&E discusses how a classifier system is used to calculate mean (average) MAVs by grid which are then aggregated to a risk score.</p> <p>These estimations of how consequences are calculated in section 6 appears inconsistent with Table 9.2.2.1 on page 508 (section 9); the table states maximum population impact from Technovision simulation is used to calculate safety consequences and that maximum tailings impact from Technovision simulation is used to calculate fatality consequences.</p> <p>To address this data request:</p> <ol style="list-style-type: none"> Please indicate whether the consequence component of PG&E's risk score calculations (C)RE uses averages or maximum values. If PG&E uses maximum values in the consequence component of its risk score calculations, please indicate which maximum values it uses, and explain why maximum values are used instead of averages. 	Dariusz Smith	9/8/2023	9/13/2023	9/13/2023	<p>a) As indicated on page 173 of the Second Revised 2023-2025 WMP, the wildfire consequence used in the Wildfire Distribution Risk Model (WDRM) utilizes mean (average) MAVs (C)RE, which are based on historical data. The WDRM provides an annual wildfire risk value and, as such, utilizes mean (average) values to represent the wildfire risk for that period.</p> <p>b) The safety and wildlife consequence values described in Table 9.2.2.1 on page 508 of the Second Revised 2023-2025 WMP are used for the PPSR Risk Assessment. To quantify the risk and benefits associated with initiating or not initiating a PPSR during high wildfire conditions, as described on page 907, the modeling considerations are to estimate the consequences of wildfire risk and PPSR risk during the high wildfire risk conditions promoting a PPSR event. To better represent those low-frequency high-consequence conditions, the maximum values for safety and wildlife consequence are used.</p>	0	NA	6.1.1.1	Risk Score Calculations	NA	
459	TURN	014	TURN_014	1	TURN_014_01	<p>On September 15, 2023, PG&E submitted a revision to September 2023-2025 WMP submission, to which OES responded on September 13, 2023. PG&E indicated that PG&E wishes to include additional information to be taken related to the 2023-2025 Revision Notice.</p> <p>Please provide all documents (see the instructions above regarding identifying "document" broadly) in PG&E's possession that were created on or after August 7, 2023 (the date of PG&E's response to the Revision Notice) that reflect communication between an employee or other representative of PG&E and an employee or other representative of OES related to PG&E's 2023-2025 WMP. Please exclude from the response documents that are publicly available through the OES website, such as data requests from OES and PG&E's responses to such data requests.</p>	Tom Long	9/15/2023	9/20/2023	9/20/2023	<p>Please note the attachments to this response contain confidential material. PG&E objects to this request on the grounds that it is confidential and unduly burdensome. Additionally, PG&E objects to this request to the extent that it requests PG&E to provide the names of the employees that provided the information. PG&E does not intend to waive these objections. PG&E responds as follows: "WMP/Discovery/2023_DR_TURN_014-01" (the date of PG&E's response to the Revision Notice) that reflect communications between PG&E and OES related to PG&E's 2023-2025 WMP that were created on or after August 7, 2023 (the date of PG&E's response to the Revision Notice) that reflect communications between PG&E and OES related to PG&E's 2023-2025 WMP. Please exclude from the response documents that are publicly available through the OES website, such as data requests from OES and PG&E's responses to such data requests.</p>	1	NA	NA	NA	NA	NA
460	OES	014	OES_014	1	OES_014_01	<p>Q01: Regarding Wildfire Benefit Cost Analysis</p> <p>a) In PG&E's Supplemental Revision Notice Response, PG&E states that it "will be moving away from the WFE to a Wildfire Benefit Cost Analysis (WBCA) at the circuit segment level." (p. 78)</p> <p>How does PG&E determine which initiatives are used in combination when evaluating across effectiveness (i.e. the example in Table RNP/CAE-23-05-C3 shows covered conductor with EPSS and CDO)? Please provide the calculations used for the monetized risk values shown in Table RNP/CAE-23-05-C3 (p. 84)</p> <p>b) How is PG&E calculating the monetized risk avoidance (as described on p. 80)?</p> <p>c) PG&E also states that it "wishes to present the benefit/cost model and mitigation selection results using this model in our Service Risk (SR) plan that we shared to the Wildfire Safety" (p. 82)</p> <p>d) What is PG&E's timeline for the development and implementation of WBCA? This should include (but not be limited to) when PG&E is planning on phasing from WFE to WBCA, as well as when PG&E's understanding and planning plans will begin to be informed by WBCA opposed to WFE.</p> <p>e) Has PG&E analyzed the prioritization or mitigation selection difference between implementing WFE vs. WBCA? If so, provide all such supporting analysis.</p>	Dariusz Smith	10/6/2023	10/11/2023	10/11/2023	<p>The information in this data response is PG&E's best current information on future approaches to underground project selection and prioritization. The future approach discussed on page 78 has not been fully developed, approved or implemented with PG&E. While PG&E has answered the questions to the best of our current ability and based on current available information, the development of and output from the WBCA is still ongoing and may ultimately be different than the information provided herein.</p> <p>a) Identifying an underground project consists of three basic steps: 1) selection of a high-priority circuit segment; 2) evaluation of the preferred mitigation alternative; and 3) refinement of priority order. Sites are selected step 1) based on wildfire risk from PG&E's Wildfire Distribution Risk Model (WDRM) including feasibility. Feasibility is then one of multiple factors that is used in steps 2 and 3 of the project identification process.</p> <p>b) PG&E selects the mitigation with the highest net benefit. In the example provided in Table RNP/CAE-23-05-C3 for Segment 2, the mitigation with the highest net benefit is Underground (UG) Primary, Overhead Hazard (OH) Recombinant and Recombinant. For UG Segment 1, the mitigation with the highest net benefit is Covered Conductor Recombinant with EPSS and CDO. The combination of mitigations is based on the mitigation (i.e., EPSS and CDO) where covered conductor is installed) currently applied across PG&E's system.</p> <p>c) As relates to monetized risk values: In December 2022 the CPUC issued a decision in the Risk-Based Decision-Making Framework (RBMF) Order Instituting Reasoning (OR) that replaced the MAVF that California utilities had been using to evaluate different mitigations with a cost/benefit approach that includes standardized dollar valuations for consequences from risk events. 1 The decision also approved the use of specific methods and sources of information to determine a standard dollar value of each risk attribute— safety, electric reliability, and gas reliability. 2 PG&E's calculations for monetized risk avoidance are aligned with the RBMF framework.</p> <p>d) The worksheet submitted in this WMP is based on PG&E's WDRM. None of the 2023-2025 projects included in the WMP worksheet were selected using the WBCA. The WBCA is being developed to assess RBCA values (RBMF).</p>	0	NA	6.1.2.2	Grid Design and System Hardening	Underground of electric lines and/or equipment	
461	OES	014	OES_014	2	OES_014_02	<p>Q02: Regarding backing risk reduction</p> <p>a) Provide PG&E's calculations for risk reduction percentages broken down annually for both the initial open tap reduction targets in PG&E's Table PG&E-8.1.7.2 (PG&E's original 2023-2025 Wildfire Mitigation Plan, p. 455) compared to the revised Table PG&E-8.1.7.2 (PG&E's latest 2023-2025 WMP as filed with its Supplemental Revision Notice Response, p. 559). This should include a discussion of how PG&E's calculations for risk reductions, as well as both its reduction in risk units and overall risk impact.</p> <p>b) Provide PG&E's overall calculations for risk reduction percentages for its original 2023-2025 WMP plan for addressing backing compared to PG&E's new plan for addressing backing as outlined in its Supplemental Revision Notice Response. This should also account for any new risk introduced from delays in responding to Priority 1 and 2 tags that may be taken. Q03 requirements due to a reduction in risk units and overall risk impact.</p> <p>c) Explain the difference between monetized risk units and the risk impact as shown in Table RNP/CAE-23-04-2 (p. 55) (for instance, 2023 has a 48 percent risk unit reduction, but only a 2.4 percent risk impact reduction).</p>	Dariusz Smith	10/6/2023	10/11/2023	10/11/2023	<p>a) Below are the backup EC mitigation risk reduction percentages broken down annually by PG&E's latest 2023-2025 Wildfire Mitigation Plan and PG&E's most recent 2023-2025 WMP, which was filed with its Supplemental Revision Notice Response.</p> <p>Initial 2023-2025 Wildfire Mitigation Plan</p> <ol style="list-style-type: none"> 2023: 72.5 / 151 = +48% 2024: 102.7 / 151 = +68% 2025: 18.3 / 151 = -77% <p>2023-2025 WMP as filed with PG&E's Supplemental Revision Notice Response</p> <ol style="list-style-type: none"> 2023: 72.5 / 151 = +48% 2024: 102.7 / 151 = +68% 2025: 13.1 / 151 = +8% <p>The risk reduction calculations were performed by reviewing the individual defences on each tag and running them through our risk models.</p> <p>b) The risk reduction calculations for the backup risk points as of January 1, 2023. This is commonly referred to as the backing population and represents the risk points that are in the backlog for each year of the workplan. The risk reduction percentages for the backing are a ranging tally from our starting point of 151 risk points, which is a measure of each year's risk points. For example, the 102.7 risk points in 2024 are the sum of the 2023 tags (72.5 risk points) and the planned work in 2024 (30.2 risk points). In the original WMP plan, it was expected that 77% of the backing risk points would be eliminated at the end of 2025. With the revised workplan, it is expected that 87% of the backing risk would be eliminated at the end of 2025.</p> <p>c) Please note that the above information is based on the Supplemental Revision Notice Response filing. If new notifications are identified that pose a higher wildfire risk, PG&E will re-prioritize higher risk units where feasible, while still maintaining our risk point and backing volume commitments.</p>	0	NA	6.1.7	Open Work Orders	NA	

462	MOIRA	Data Request No. 7	MOIRA_Data Request No. 7	1	MOIRA_Data Request No. 7_G1	<p>PG&E has 30 Public Safety Specialists (PSS) at the expert and senior levels. Below, we describe the general roles, levels, responsibilities, and qualifications of the PSS team. After the narrative, we provide a table that lists the minimum and desired qualifications for PSS experts and their roles.</p> <p>Diversity, a PSS is responsible for serving as the point of contact for county office of emergency services (CES), fire and law enforcement agencies. The PSS also facilitates conversations with and works with public works departments, contractors, excavators, tree trimmers, utilities and other specialized groups within PG&E's service territory and provides on-site support to PG&E and agency responders during emergencies. Additionally, the position supports gas and electric regulatory compliance meetings, the delivery of the Community Wildlife Safety Program and the Public Safety Power Shutoff Program, wildfire readiness efforts, and emergency planning efforts across all Functional Areas.</p> <p>PSS teams are structured regionally. Collectively, the teams are a diverse group of safety specialists with varying degrees of experience in the spread modeling, traffic control and evacuation, and wildfire firefighting and suppression. The PSS team members are generally based on their previous emergency management experience.</p> <p>PSS team members who previously worked for PG&E have significant wildfire firefighting and suppression in traffic control and evacuation modeling because that task generally falls to law enforcement agencies during a wildfire fire or other disaster. Team members who had previous careers in law enforcement generally held executive level positions within their respective agencies.</p> <p>PSS staff who previously worked for wildfire fire agencies, such as CALFIRE, USDA Forest Service, National Park Service, and the Bureau of Land Management have extensive experience in wildfire firefighting and suppression, with some limited to moderate experience in fire spread modeling using Technocracy or other simulation tools. These team members often are very knowledgeable about traffic control and evacuation modeling. Most of our team members who had previous careers in firefighting held the position of Chief Officer and above.</p> <p>PSS staff who came from firefighting within local government agencies such as counties, cities, and special districts have varying degrees of experience in the spread modeling, traffic control and evacuation, and wildfire firefighting and suppression based on the size and jurisdiction of the department(s) where they worked.</p> <p>Ingress and egress scenarios are not determined solely by the potential for falling poles. The PSS considers many factors when evaluating ingress and egress concerns in a corridor or equally expanding wildfire fire incidents.</p> <ul style="list-style-type: none"> -Population density -Time of day (there are differences between evacuating communities at night when most people are at home compared to during the day when fewer people are at home) -Amount of time the public would need to evacuate or shelter in place -Notifications and information made available to the public -Road infrastructure (e.g., road size, number of lanes, type of surface, destination) -Fuel types along an evacuation corridor (e.g., grass vs. brush vs. timber) -Weather conditions (e.g., wet fuel days including high temperatures, high winds, low relative humidity) -Geography/terrain (the evacuation route places evacuees in danger due to steep slopes, drainage, and chimney along a corridor which are often associated with extreme fire behavior) -Human factors (e.g., ability, special needs, evacuating large and small pets, knowledge or experience of citizens living in high hazard areas) -Location of overhead electrical assets (e.g., poles proximate to the roads shoulder and conductor crossing over those right-of-way thoroughfares would they become impacted by fire and fall onto the evacuation corridor) -Proximity to residential, commercial, and industrial areas (see 1) <p>1) The number of handling projects per circuit varies depending on the length of the circuit, the number of critical protection zones on the circuit, the load, and the needs of the circuit. There is no average distribution. Please note that the PSS score is not the sole driver for any mitigation decision and is only a driver for the inclusion of a circuit segment to be included in the portfolio. A more detailed PSS review is considered within the scoping process to understand the specific needs within a project.</p> <p>2) The portion of the circuit taken up by a handling project varies by circuit and depends on the risk distribution within the circuit and the needs of the circuit. There is no average distribution. CPC system handling projects can range from less than 1 mile to more than 50 miles. The decision for specific mitigation alternatives is typically made at a sub-project level. Because of this, a percentage of the circuit in a handling project is not useful in the determination of the value of the PSS score.</p> <p>3) PG&E answers the question as referring to the PSS score. PSS scores are the output from a PSS Circuit Based Risk Assessment. A copy of the PSS assessment form, score sheet, and risk matrix is attached "WMP Decision/OSR/OSR_MGSA_Q07-Q08/3/2021" v1 response to Question 1.</p> <p>4) The data request, PG&E provided the qualifications for our PSS team members. Only select PSS team members were qualified by PG&E's Wildlife Governance Council to perform the PSS Circuit Based Risk Assessments. To perform an assessment, a PSS must have:</p> <ul style="list-style-type: none"> -Minimum of 20 years of education, training, and experience in wildfire incident response. -Knowledge base including the behavior, prevention standards, suppression tactics and strategies, all risk emergency response, command and control, and complex incident management. -Each evaluator has functioned as a Chief Officer within California Professional Wildland Firefighting Agencies. -Experience as members of a Local, State, or Federal Incident Management Team. <p>PSS scores do not compare to WDRM v4 risk scores. The PSS score was used as a supplemental review of risks that were not identified by or quantified by WDRM v4. The PSS score is an independent assessment. The PSS scores are not used to adjust WDRM v4 risk scores.</p>	Joseph Mitchell	10/9/2023	10/12/2023	10/12/2023	<p>https://www.pge.com/legal/pge/communications/462/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/462/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/462/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	0	NA	8.4.1	Emergency Preparedness	Protocols for Emergency Communications
463	MOIRA	Data Request No. 7	MOIRA_Data Request No. 7	2	MOIRA_Data Request No. 7_G2	<p>Are ingress and egress concerns determined solely by the potential for falling poles or does the PSS team also assign the potential for entrapment by lost moving wildfires and/or significant smoke?</p> <p>PG&E, when PG&E conducted the E-OSR analysis, our PSS team members reviewed each system handling project during the scoping process to determine if egress/ingress issues existed at the site. Given the time and effort required to review this type of analysis, PG&E is instead using a PSS prior to this information analysis. In place of a PSS team member reviewing each of the 2023-2024 project areas selected by WDRM v4, PG&E is using the PSS score for each circuit and applying it to each segment in that circuit. If the PSS score for a circuit is high (score = 105), then the model considers there to be an ingress/egress risk on each of the segments that make up that circuit.</p>	Joseph Mitchell	10/9/2023	10/12/2023	10/12/2023	<p>https://www.pge.com/legal/pge/communications/463/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/463/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/463/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	0	NA	8.1.3	Asset Inspections	NA
464	MOIRA	Data Request No. 7	MOIRA_Data Request No. 7	3	MOIRA_Data Request No. 7_G3	<p>How representative is the prior PSS score of the wildfire circuit? Specifically:</p> <ol style="list-style-type: none"> How many handling projects are there per circuit? Provide a distribution if possible. What fraction does the handling project typically take up of the circuit? Provide a distribution if possible. Show how EPS scores are determined and how these compare against WDRM v4. Is the PSS score being used as an independent decision tree branch point? If so, is it used as an independent decision tree branch point? What fraction of underpinning projects rely on PSS egress/ingress scores to make the determination to underpin? Provide the fraction for cases where PSS egress/ingress was used as one of many factors used in the determination to underpin. 	Joseph Mitchell	10/9/2023	10/12/2023	10/12/2023	<p>https://www.pge.com/legal/pge/communications/464/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/464/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/464/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	1	NA	8.1.3	Asset Inspections	NA
465	CaPA	Set WMP-30	CaPA_Set WMP-30	1	CaPA_Set WMP-30_G1	<p>The data request relates to PG&E's Wildlife Distribution Risk Model version 4 (hereafter referred to as "WDRM v4"). If any of the requested documents or information is not yet complete and available, please state in your response when you expect the documents or information to be complete and available.</p> <ol style="list-style-type: none"> Please list all distinct risk scores generated by PG&E's WDRM v4. For example, WDRM v4 generated 17 different risk scores. For each risk score in part (a), please provide a category or brief description of the type of risk score represents. For each risk score in part (a), please provide a brief explanation of how PG&E intends to use that risk score. For each risk score in part (a), please list all PG&E wildfire mitigation initiatives that are informed by that risk score. For each risk score in part (a), please state the most granular level available for that risk score. For example, in WDRM v4, the most granular level available would be the risk score associated with individual 100m x 100m pixels. For each risk score in part (a), please state the granularity at which the risk score is used to inform wildfire mitigation initiatives (e.g., circuit segment, circuit, individual asset, etc.). <p>This data request relates to PG&E's Wildlife Distribution Risk Model version 4 (hereafter referred to as "WDRM v4"). If any of the requested documents or information is not yet complete and available, please state in your response when you expect the documents or information to be complete and available.</p> <ol style="list-style-type: none"> Please list all composite (or aggregate) risk scores generated by PG&E's WDRM v4. For example, WDRM v4 generated five composite risk scores. For each risk score in part (a), please provide a category or brief description of the type of risk score represents. For each risk score in part (a), please provide a brief explanation of how PG&E intends to use that risk score. For each risk score in part (a), please list all PG&E wildfire mitigation initiatives that are informed by that risk score. For each risk score in part (a), please state the most granular level available for that risk score. For each risk score in part (a), please state the granularity at which the risk score is used to inform wildfire mitigation initiatives (e.g., circuit segment, circuit, individual asset, etc.). <p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>Please provide a GIS file that details the most granular level (as discussed in questions 1(a) and 2(a)) available for each risk score identified in questions 1(a) and 2(a). This file should contain the following:</p> <ol style="list-style-type: none"> Geometric features detailing the most granular level available for each risk score. This may be polygons that depict "lines," lines that depict circuit segments, points that depict assets, or other geometry that best suits the relevant risk scores. If multiple risk scores share geometry (e.g., multiple risk scores that are calculated at the "pixel" level), there is no need to include multiple layers that depict the same physical geometry. For each geometric feature, please include all relevant risk scores from questions 1(a) and 2(a) as attributes. <p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>Please provide a GIS file that details the risk scores at the same granularity that is currently used to inform wildfire mitigation measures (as discussed in questions 1(c) and 2(c)). This file should contain the following:</p> <ol style="list-style-type: none"> Geometric features detailing the relevant geometry for each risk score. This may be polygons that depict "lines," lines that depict circuit segments, points that depict assets, or other geometry that best suits the relevant risk scores. If multiple risk scores share geometry (e.g., multiple risk scores that are calculated at the "pixel" level), there is no need to include multiple layers that depict the same physical geometry. For each geometric feature, please include all relevant risk scores from questions 1(a) and 2(a) as attributes. For each geometric feature, include the circuit identification number as an attribute. For each geometric feature, include the circuit name as an attribute. For each geometric feature, include the circuit segment name as an attribute. As needed, include unique identification for each geometric feature (e.g., asset ID, substation name, etc.). 	Holly Wehman	10/11/2023	10/25/2023	10/23/2023	<p>https://www.pge.com/legal/pge/communications/465/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/465/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/465/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
466	CaPA	Set WMP-30	CaPA_Set WMP-30	2	CaPA_Set WMP-30_G2	<p>The data request relates to PG&E's Wildlife Distribution Risk Model version 4 (hereafter referred to as "WDRM v4"). If any of the requested documents or information is not yet complete and available, please state in your response when you expect the documents or information to be complete and available.</p> <ol style="list-style-type: none"> Please list all composite (or aggregate) risk scores generated by PG&E's WDRM v4. For example, WDRM v4 generated five composite risk scores. For each risk score in part (a), please provide a category or brief description of the type of risk score represents. For each risk score in part (a), please provide a brief explanation of how PG&E intends to use that risk score. For each risk score in part (a), please list all PG&E wildfire mitigation initiatives that are informed by that risk score. For each risk score in part (a), please state the most granular level available for that risk score. For each risk score in part (a), please state the granularity at which the risk score is used to inform wildfire mitigation initiatives (e.g., circuit segment, circuit, individual asset, etc.). <p>This data request relates to PG&E's Wildlife Distribution Risk Model version 4 (hereafter referred to as "WDRM v4"). If any of the requested documents or information is not yet complete and available, please state in your response when you expect the documents or information to be complete and available.</p> <ol style="list-style-type: none"> Please list all composite (or aggregate) risk scores generated by PG&E's WDRM v4. For example, WDRM v4 generated five composite risk scores. For each risk score in part (a), please provide a category or brief description of the type of risk score represents. For each risk score in part (a), please provide a brief explanation of how PG&E intends to use that risk score. 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This may be polygons that depict "lines," lines that depict circuit segments, points that depict assets, or other geometry that best suits the relevant risk scores. If multiple risk scores share geometry (e.g., multiple risk scores that are calculated at the "pixel" level), there is no need to include multiple layers that depict the same physical geometry. For each geometric feature, please include all relevant risk scores from questions 1(a) and 2(a) as attributes. <p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>Please provide a GIS file that details the risk scores at the same granularity that is currently used to inform wildfire mitigation measures (as discussed in questions 1(c) and 2(c)). This file should contain the following:</p> <ol style="list-style-type: none"> Geometric features detailing the relevant geometry for each risk score. 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Holly Wehman	10/11/2023	10/25/2023	10/23/2023	<p>https://www.pge.com/legal/pge/communications/466/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/466/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/466/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
467	CaPA	Set WMP-30	CaPA_Set WMP-30	3	CaPA_Set WMP-30_G3	<p>The data request relates to PG&E's Wildlife Distribution Risk Model version 4 (hereafter referred to as "WDRM v4"). If any of the requested documents or information is not yet complete and available, please state in your response when you expect the documents or information to be complete and available.</p> <ol style="list-style-type: none"> Please list all composite (or aggregate) risk scores generated by PG&E's WDRM v4. For example, WDRM v4 generated five composite risk scores. For each risk score in part (a), please provide a category or brief description of the type of risk score represents. For each risk score in part (a), please provide a brief explanation of how PG&E intends to use that risk score. For each risk score in part (a), please list all PG&E wildfire mitigation initiatives that are informed by that risk score. For each risk score in part (a), please state the most granular level available for that risk score. 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Holly Wehman	10/11/2023	10/25/2023	10/23/2023	<p>https://www.pge.com/legal/pge/communications/467/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/467/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/467/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
468	CaPA	Set WMP-30	CaPA_Set WMP-30	4	CaPA_Set WMP-30_G4	<p>The data request relates to PG&E's Wildlife Distribution Risk Model version 4 (hereafter referred to as "WDRM v4"). If any of the requested documents or information is not yet complete and available, please state in your response when you expect the documents or information to be complete and available.</p> <ol style="list-style-type: none"> Please list all composite (or aggregate) risk scores generated by PG&E's WDRM v4. For example, WDRM v4 generated five composite risk scores. For each risk score in part (a), please provide a category or brief description of the type of risk score represents. For each risk score in part (a), please provide a brief explanation of how PG&E intends to use that risk score. For each risk score in part (a), please list all PG&E wildfire mitigation initiatives that are informed by that risk score. For each risk score in part (a), please state the most granular level available for that risk score. 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This may be polygons that depict "lines," lines that depict circuit segments, points that depict assets, or other geometry that best suits the relevant risk scores. If multiple risk scores share geometry (e.g., multiple risk scores that are calculated at the "pixel" level), there is no need to include multiple layers that depict the same physical geometry. For each geometric feature, please include all relevant risk scores from questions 1(a) and 2(a) as attributes. <p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>Please provide a GIS file that details the risk scores at the same granularity that is currently used to inform wildfire mitigation measures (as discussed in questions 1(c) and 2(c)). This file should contain the following:</p> <ol style="list-style-type: none"> Geometric features detailing the relevant geometry for each risk score. 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Holly Wehman	10/11/2023	10/25/2023	10/23/2023	<p>https://www.pge.com/legal/pge/communications/468/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/468/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p> <p>https://www.pge.com/legal/pge/communications/468/wildfire-emergency-preparedness-technical-data-request-no-7-wildfire-mitigation</p>	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA

469	CAIPA	Set WMP-30	CAIPA_Set WMP-30	5	CAIPA_Set WMP-30_05	<p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>Please provide a spreadsheet that lists (as rows) each circuit-segment that is included in the Wildfire Distribution Risk Model v4. This spreadsheet should include, at minimum, the following columns:</p> <ol style="list-style-type: none"> Name or ID number of each circuit-segment. Circuit name for the circuit that each segment is part of. Circuit ID for the circuit that each segment is part of. Normal voltage. The total count of the circuit-segment. (C&I Advocates understands this to be the number of 100m x 100m pixels analyzed by the WDRM v4 along the length of the circuit-segment). The average risk value(s) associated with each pixel along the circuit-segment. (In previous versions of the risk model, this was referred to as the "mean MAVF core risk" or "mean risk"). Total overhead circuit-miles on the circuit-segment. Total overhead circuit-miles on the circuit-segment. Total Tier 2 overhead circuit-miles on the circuit-segment. Total Tier 3 overhead circuit-miles on the circuit-segment. Total underground circuit-miles on the circuit-segment. Total Tier 2 underground circuit-miles on the circuit-segment. Total Tier 3 underground circuit-miles on the circuit-segment. Each risk score (each in a separate and labeled column) identified in question 1(a) that is used at the circuit-segment level to inform wildfire mitigation decisions. (May require multiple columns.) Each composite risk score (each in a separate and labeled column) identified in question 2(a) that is used at the circuit-segment level to inform wildfire mitigation decisions. (May require multiple columns.) 	<p>a) - e) As stated in the responses to Questions 001 - 004, the WDRM v4 is not currently available. PG&E plans to make the model information available with the 2025 WMP Update.</p>	Holly Wehmen	10/12/2023	10/25/2023	10/23/2023	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
470	CAIPA	Set WMP-30	CAIPA_Set WMP-30	6	CAIPA_Set WMP-30_06	<p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>a) Has E3 or another entity performed an independent review of the WDRM v4? b) If the answer to part (a) is yes, please provide a copy of any report and/or input from the independent review. c) If the answer to part (a) is no, does PG&E plan to have E3 or a similar entity perform an independent review of the WDRM v4? d) If the answer to part (c) is no, please explain why not. e) If the answer to part (c) is yes, when does PG&E expect the review to be completed?</p>	<p>a) - c) The WDRM v4 is currently under review by E3. PG&E expects that the E3 review will be completed and available with the 2025 WMP Update.</p>	Holly Wehmen	10/12/2023	10/25/2023	10/23/2023	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
471	CAIPA	Set WMP-30	CAIPA_Set WMP-30	7	CAIPA_Set WMP-30_07	<p>The following questions refer to the risk scores generated from WDRM v4. This should be understood to refer to PG&E's responses to questions 1 and 2 above.</p> <p>a) Has PG&E created a detailed overview document that details the WDRM v4, similar to the 2021 Wildfire Distribution Risk Model Overview that PG&E submitted following the public hearing held on October 5 and 6, 2021? b) If the answer to part (a) is yes, please provide a copy of the document. c) If the answer to part (a) is no, does PG&E plan to create a document? d) If the answer to part (c) is no, please explain why not. e) If the answer to part (c) is yes, when does PG&E expect the document to be completed?</p>	<p>a) - e) As stated in the responses to Questions 001 - 005, the WDRM v4 is not currently available. PG&E plans to make the model information available with the 2025 WMP Update. Along with this model information, PG&E anticipates preparing a similar document as part of the 2025 WMP Update.</p>	Holly Wehmen	10/12/2023	10/25/2023	10/23/2023	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
472	CAIPA	Set WMP-30	CAIPA_Set WMP-30	8	CAIPA_Set WMP-30_08	<p>Page 76 of PG&E's 2023-2025 Wildfire Mitigation Plan Supplemental Response to Revision Notice, September 27, 2023 states, "When we begin using the WDRM v4 and incorporating it with the WBCA (Wildfire Benefit Cost Analysis), risk ranking and project prioritization will include wildfire risk reduction, reliability benefits, public safety project costs, long-term savings and other factors that present a more holistic view into the costs and benefits of wildfire project investment."</p> <p>a) Does the WDRM v4 include an estimation of reliability benefits, as discussed in the above quote? Please explain if yes. b) Does the WDRM v4 include an estimation of public safety, as discussed in the above quote? Please explain if yes. c) Does the WDRM v4 include an estimation of project costs, as discussed in the above quote? Please explain if yes.</p>	<p>a) - c) The WDRM v4 scope does not include the estimated benefits requested in parts a, b, and c. Reliability benefits, public safety, and project costs will be considered as part of the WBCA and are not part of the WDRM v4.</p>	Holly Wehmen	10/12/2023	10/25/2023	10/23/2023	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	NA
473	CAIPA	Set WMP-31	CAIPA_Set WMP-31	1	CAIPA_Set WMP-31_01	<p>The following questions pertain to PG&E's 2023 - 2025 WMP Revision 3, submitted on September 27, 2023, Section 8.1.7 - Open Work Orders.</p> <p>On page 630 of your 2023 - 2025 WMP R3, PG&E provided a table (Table 8-8-1) showing the total number of past due transmission asset work orders by age and HTD Set. Please provide an updated version of Table 8-8-1, as of September 30, 2023.</p> <p>Number of Past Due Transmission Asset Work Orders Categorized by Age (through September 30, 2023)</p> <p>HTD Area</p> <p>0 - 30 Days</p> <p>31 - 60 Days</p> <p>61 - 90 Days</p> <p>91 - 180 Days</p> <p>181+ Days</p> <p>Non - HTD</p> <p>HTD Tier 2</p> <p>HTD Tier 3</p>	<p>Please see the table below for the requested information.</p> <p>Number of Past Due Transmission Asset Work Orders Categorized by Age (through September 30, 2023)</p> <p>HTD Area</p> <p>0 - 30 Days 31 - 60 Days 61 - 90 Days 91 - 180 Days 181+ Days</p> <p>Non - HTD HTD Tier 2 HTD Tier 3</p> <p>HTD Area 0 - 30 Days 31 - 60 Days 61 - 90 Days 91 - 180 Days 181+ Days</p> <p>Non - HTD HTD Tier 2 HTD Tier 3</p>	Holly Wehmen	10/12/2023	10/26/2023	10/25/2023	0	NA	8.1.7	Open Work Orders	NA
474	CAIPA	Set WMP-31	CAIPA_Set WMP-31	2	CAIPA_Set WMP-31_02	<p>The following questions pertain to PG&E's 2023 - 2025 WMP Revision 3, submitted on September 27, 2023, Section 8.1.7 - Open Work Orders.</p> <p>On page 630 of your 2023 - 2025 WMP R3, PG&E provided a table (Table 8-8-1) showing the total number of past due transmission asset work orders by age and HTD Set. Please provide a similar table for past due distribution asset work orders by age and HTD Set, as of September 30, 2023.</p> <p>Number of Past Due Distribution Asset Work Orders Categorized by Age (through September 30, 2023)</p> <p>HTD Area</p> <p>0 - 30 Days</p> <p>31 - 60 Days</p> <p>61 - 90 Days</p> <p>91 - 180 Days</p> <p>181+ Days</p> <p>Non - HTD</p> <p>HTD Tier 2</p> <p>HTD Tier 3</p>	<p>Please see the table below for the requested information.</p> <p>Number of Past Due Distribution Asset Work Orders Categorized by Age (through September 30, 2023)</p> <p>HTD Area 0 - 30 Days 31 - 60 Days 61 - 90 Days 91 - 180 Days 181+ Days</p> <p>Non - HTD HTD Tier 2 HTD Tier 3</p> <p>HTD Area 0 - 30 Days 31 - 60 Days 61 - 90 Days 91 - 180 Days 181+ Days</p> <p>Non - HTD HTD Tier 2 HTD Tier 3</p>	Holly Wehmen	10/12/2023	10/26/2023	10/25/2023	0	NA	8.1.7	Open Work Orders	NA
475	CAIPA	Set WMP-31	CAIPA_Set WMP-31	3	CAIPA_Set WMP-31_03	<p>The following questions pertain to PG&E's 2023 - 2025 WMP Revision 3, submitted on September 27, 2023, Section 8.1.7 - Open Work Orders.</p> <p>On page 637 of your 2023 - 2025 WMP R3, PG&E stated with regard to distribution asset work orders, "PG&E is unable to provide the number of past due asset work orders, categorized by age, in the HTD, as stated above."</p> <p>a) Please let the reviewer why PG&E was unable to provide the number of past due asset work orders, categorized by age, in the HTD, as stated above. b) Please let any steps PG&E has taken to improve its ability to provide the number of past due asset work orders, categorized by age, in the HTD.</p>	<p>a) At the time of filing the 2023 - 2025 WMP, PG&E did not have the capability to extract the data at the granularity requested. Therefore, PG&E was unable to provide the number of past due asset work orders and, therefore, submit the Quarterly Data Report, Table 2, metric 7 in a timely manner. b) Throughout 2023, PG&E has improved its "data" extraction capabilities and is now able to provide the data at the requested granularity. This capability has improved by employing additional data scientists and creating automated scripting possibilities. This automation process will now allow us to pull data more easily, and at the granularity desired.</p>	Holly Wehmen	10/12/2023	10/26/2023	10/25/2023	0	NA	8.1.7	Open Work Orders	NA
476	CAIPA	Set WMP-31	CAIPA_Set WMP-31	4	CAIPA_Set WMP-31_04	<p>The following questions pertain to PG&E's 2023 - 2025 WMP Revision 3, submitted on September 27, 2023, Section 8.1.7 - Open Work Orders - Distribution Tag.</p> <p>Section 8.1.7.2 - Open Work Orders - Distribution Tag in PG&E's 2023 - 2025 WMP R3 discusses a subset of open work orders referred to as "ignition-risk" tags. Please provide a table similar to Table 8-6-1 for all past due, ignition-risk, distribution asset work orders by age and HTD Set, as of September 30, 2023.</p> <p>Number of Ignition Risk "Past Due Distribution Asset Work Orders Categorized by Age (through September 30, 2023)</p> <p>HTD Area</p> <p>0 - 30 Days</p> <p>31 - 60 Days</p> <p>61 - 90 Days</p> <p>91 - 180 Days</p> <p>181+ Days</p> <p>Non - HTD</p> <p>HTD Tier 2</p> <p>HTD Tier 3</p>	<p>Please see the table below for the requested information.</p> <p>Number of Ignition Risk "Past Due Distribution Asset Work Orders Categorized by Age (through September 30, 2023)</p> <p>HTD Area 0 - 30 Days 31 - 60 Days 61 - 90 Days 91 - 180 Days 181+ Days</p> <p>Non - HTD HTD Tier 2 HTD Tier 3</p> <p>HTD Area 0 - 30 Days 31 - 60 Days 61 - 90 Days 91 - 180 Days 181+ Days</p> <p>Non - HTD HTD Tier 2 HTD Tier 3</p>	Holly Wehmen	10/12/2023	10/26/2023	10/25/2023	0	NA	8.1.7	Open Work Orders	NA
477	CPUC - SPD (Safety Policy Division)	011	CPUC - SPD (Safety Policy Division)_011_01	1	CPUC - SPD (Safety Policy Division)_011_01	<p>Provide calculations that justify Table RN-PG&E-23-05-3. Explain specifically how Risk Avoidance over Lifetime Benefit is calculated from Total Risk. (page 85 of PG&E's 2023-2025 Wildfire Mitigation Plan (WMP) - Supplemental Revision Notice Response)</p>	<p>In Critical Issue RN-PG&E-23-05, PG&E explained that in response to the Commission's decision in the Risk-Based Decision-Making Framework (RBDMF), we are in the process of constructing a benefit-cost model. The model will incorporate several elements of the mitigation selection decision-making process into an analytical model. RN-PG&E-23-05 PG&E calls this the Wildfire Benefit Cost Analysis (WBCA) tool. In RN-PG&E-23-05 PG&E provided an example of the output from the WBCA model for two mitigation alternatives at two circuit segments (Table RN-PG&E-23-05-3). PG&E explained that, in that response, PG&E explained that the WBCA has not been fully developed, approved, or implemented until PG&E is ready to begin using the WBCA. We also explained that the workplan submitted in the 2023-2025 WMP is based on PG&E's Wildfire Distribution Risk Model (WDRM) and use of the 2023-2025 projects included in the WMP workplan were selected using the WBCA. The WBCA is being developed to support PG&E's 10-year (2024-2034) undergrounding plan and we anticipate finalizing the WBCA for that submission in 2024. We anticipate eventually using the WBCA to inform project selection for PG&E's long-term undergrounding plan and future WMPs. Because the WBCA is still in development, PG&E is not in a position to respond to either of the questions in this data request.</p>	Henry Sweet	10/12/2023	10/17/2023	10/17/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of electric lines and/or equipment
477	CPUC - SPD (Safety Policy Division)	012	CPUC - SPD (Safety Policy Division)_012_01	1	CPUC - SPD (Safety Policy Division)_012_01	<p>Provide calculations that justify Table RN-PG&E-23-05-3. Explain specifically how Risk Avoidance over Lifetime Benefit is calculated from Total Risk. (page 85 of PG&E's 2023-2025 Wildfire Mitigation Plan (WMP) - Supplemental Revision Notice Response)</p>	<p>Please see "WMP-Discovery2023_DR_SPD_012-0001(A&B).xlsx" for the visual and identifying data. This chart has not been updated. PG&E expects to update the chart in Q2 of 2024 as part of the Risk Assessment and Mitigation Phase (RAMMP) filing. Please note, there was a non-material correction in the visual data below. Both the original and corrected visual data below are provided in the attachment.</p>	Henry Sweet	11/13/2023	11/15/2023	11/14/2023	1	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of electric lines and/or equipment
478	CPUC - SPD (Safety Policy Division)	011	CPUC - SPD (Safety Policy Division)_011_02	2	CPUC - SPD (Safety Policy Division)_011_02	<p>Provide a material justification that shows the risk from outages (or other sources) for EPSS compares to benefits of EPSS (due to wildfire, other's) SPD would prefer the analysis performed using cost benefit values similar to that shown in Table RN-PG&E-23-05-3.</p>	<p>Please see PG&E's response to Question 1 of this data request.</p>	Henry Sweet	10/12/2023	10/17/2023	10/17/2023	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of electric lines and/or equipment

479	CAIPA	Set WMP-32	CAIPA_Set WMP-32	1	CAIPA_Set WMP-32_01	<p>Please provide the following data for the years 2020, 2021, 2022, and 2023:</p> <p>a) Number of miles of underground distribution that PG&E installed as part of overhead-to-undergrounding conversion projects for the purpose of wildfire risk reduction.</p> <p>b) Number of miles of overhead distribution PG&E removed as part of the same projects in part (a).</p>	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>Please see the table below with the data requested for subparts a and b.</p> <p>a) Please see row (a) (IG Miles Completed) included on the miles of underground primary distribution lines installed each year 2020-2022 for the purposes of wildfire risk reduction. The data provided in 2023 is year-to-date through November 1, 2023. In addition to the miles completed, PG&E also has approximately 200 miles currently in progress (e.g., permit complete, in construction, trench complete, conduit installed, ready for cable pull-in).</p> <p>b) Please see row (b) (OH Miles Replaced) included on the estimated miles of overhead primary distribution lines PG&E has removed as part of undergrounding projects for the purposes of wildfire risk reduction. PG&E historically did not track exactly the overhead miles replaced by each project. Therefore, the data provided in 2023 is an estimate based on IG Miles Completed using a standard conversion factor for rebuilt projects or all other undergrounding projects. For Community rebuild projects (IG Miles Completed) for every 1.57 miles of IG installed, one mile of existing OH line has been removed. For all other projects, 1.25 miles of IG installed equates to one mile of existing OH removed. 2020 2021 2022 2023 Total at IG Miles Completed 42.4 73.2 179.8 208.6 503.9 by OH Miles Replaced (est.) 27.6 51.2 134 188.6 437.4</p>	0	NA	7.2.1	Wildfire Mitigation Strategy Development	Projected Overall Risk Reduction
480	CAIPA	Set WMP-32	CAIPA_Set WMP-32	2	CAIPA_Set WMP-32_02	<p>Please provide the same information as requested in Question 1 for undergrounding projects that fall into each of the following categories:</p> <p>a) Rule 20 undergrounding.</p> <p>b) Wildfire related undergrounding.</p> <p>c) Any other undergrounding not included in Question 1 parts a and b of this question.</p>	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>Please see the table provided below with the data requested for subparts a - c.</p> <p>a) Please see row (a) Rule 20. Included are the undergrounding miles of primary distribution lines in the Fire Threat Districts (FTD) and/or High Fire Risk Areas (HFRA) as part of the following programs: -Rule 20A – 100% utility funding -Rule 20B – partial utility funding -Rule 20C – minimal utility funding Note: this data does not include all Rule 20 projects. It includes only those Rule 20 projects that have taken place in the FTD/DFRA given the impact of these projects on reducing wildfire risk.</p> <p>b) Please see row (b) Wildfire Related. Included are the undergrounding miles of primary distribution lines completed as part of wildfire related. This includes work in our Fire Rebuild Program that are located in an FTD/DFRA, as well as the Community Rebuild program (i.e., Bulb and Greenwell).</p> <p>c) Please see row (c) Other. Included are the undergrounding miles of primary distribution lines through PG&E targeted undergrounding program, as well as supply projects and work required by others located in an FTD/DFRA.</p> <p>Please note, PG&E previously did not track overhead miles replaced. Therefore, the overhead miles replaced is calculated based on IG Miles Completed using a standard conversion factor for rebuilt projects or all other undergrounding projects. For WMP-Discovery2023_DR_California032-Q002 Page 2 Community rebuild projects (Bulb and Greenwell) for every 1.57 miles of IG installed, one mile of existing OH line has been removed. For all other projects, 1.25 miles of IG installed equates to one mile of existing OH removed.</p>	0	NA	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
481	CAIPA	Set WMP-32	CAIPA_Set WMP-32	3	CAIPA_Set WMP-32_03	<p>Please provide copies of all current, sole-source contracts PG&E has executed with other entities with regard to any of the following:</p> <p>a) Suppliers of materials related to distribution undergrounding projects.</p> <p>b) Entities who perform labor related to distribution undergrounding projects.</p> <p>c) Entities who assist PG&E with planning, permitting, environmental review, and other similar non-construction tasks related to distribution undergrounding projects.</p> <p>d) Any other entities who provide goods or services to PG&E in relation to distribution undergrounding projects.</p>	Holly Wehman	10/31/2023	12/10/2023	12/10/2023	<p>The attachments to the response contain CONFIDENTIAL information and are being provided pursuant to the accompanying confidentiality declaration "WMP-Discovery2023_DR_California032-Q003_Confidentiality Declaration".</p> <p>a) PG&E does not have a sole-source contract process that mirrors state and federal labor-source contracting law. Instead, PG&E has a direct award process that documents contracts that are awarded over certain dollar thresholds to suppliers that are not preferred suppliers (generally, master service agreement or outline agreement supplier). PG&E currently uses a Direct Award Documentation (DAD) form to document our direct awards.</p> <p>PG&E identified two direct award contracts that we have executed with entities providing goods and/or services related to system hardening distribution undergrounding projects. The population of contracts PG&E reviewed included contracts for direct award contracts from 2020 and 2023 and where the total contract spend during that period was greater than \$100,000.</p> <p>The direct award contracts identified are as follows: PG&E is providing an: -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf -WMP-Discovery2023_DR_California032-Q003AHINOCNCF.pdf</p> <p>Attachments (1-3) are the Direct Award Documentation and Contract, including Contract Change Order for the first vendor who received a direct award contract. Attachments (4-6) are the Direct Award Documentation and Contract for the second vendor who received a direct award contract.</p> <p>b) See response to part a. c) See response to part a. d) See response to part a.</p>	5	NA	8.1.2	Grid Design, Operations and Maintenance	Grid Design and System Hardening
482	CAIPA	Set WMP-32	CAIPA_Set WMP-32	4	CAIPA_Set WMP-32_04	<p>Describe all vegetation management activities that PG&E typically performs around the following tree types. In your responses to parts (b) through (d), please describe if, and in what ways, PG&E's vegetation management activities for that category meaningful differ compared to your responses to part (a).</p> <p>a) Aboveground distribution mains located in HFTD/HFRA.</p> <p>b) Aboveground distribution secondaries located in HFTD/HFRA.</p> <p>c) Aboveground distribution services located in HFTD/HFRA.</p> <p>d) Right-of-way for underground distribution located in HFTD/HFRA.</p>	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>a) We interpret this question to address Primary Distribution voltages 48V, 120V, 120V/240V and 240V. The following program target work on OH facilities: -Annual Routine Tree Inspection (system-wide all miles), resulting pruning and tree removals. -Pruning to maintain 18 inches of year-round clearance outside HFTD and HFRA. -Pruning to maintain 4 feet of year-round clearance inside HFTD and HFRA and pruning to maintain 4 feet of clearance inside SRA during deenergized fire season. -Maintenance of Clearing removal in EDM circuit segments completed 2019-2022. -Mitigation up to complete tree removal for hazardous tree conditions identified during these inspections or brought to PG&E's attention by other inspection programs, customer, or agency notifications.</p> <p>b) Second Patrol Tree Inspection in HFTD and HFRA, resulting pruning and tree removals. -Second inspections approximately 6 months after Annual Routine Inspections to identify emerging hazardous tree conditions. WMP-Discovery2023_DR_California032-Q004 Page 2 c) Tree Work -Priority Tree work based on local or tree specific conditions. -Address tree response growths that annual pruning cannot fully mitigate to maintain compliance with Minimum Distance Requirements. -Vegetation Control (Fuelbreak maintenance) in SRAs/HFTD and HFRA. -All poles supporting equipment not specifically exempted by 14 CCR 1556. -Additional inventory in HFTD and HFRA supporting the same equipment requiring fuelbreaks in SRA and FRA. -These poles are all inventoried and evaluated for risk. -Low risk poles are not maintained unless conditions change to elevated risk. -Small trees assessments and removal risk locations are not.</p>	0	NA	8.2	Vegetation Management and Inspections	NA
483	CAIPA	Set WMP-32	CAIPA_Set WMP-32	5	CAIPA_Set WMP-32_05	<p>Please estimate the typical, annual cost per mile of vegetation management activities that PG&E performs around the following tree types:</p> <p>a) Aboveground distribution mains located in HFTD/HFRA.</p> <p>b) Aboveground distribution secondaries located in HFTD/HFRA.</p> <p>c) Aboveground distribution services located in HFTD/HFRA.</p> <p>d) Right-of-way for underground distribution located in HFTD/HFRA.</p>	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>a) Please see table below for Routine and Second Patrol annual average cost per mile of VM Distribution programs based on 2022 annual spend and 2022 actual miles. PG&E tracks costs for the entire VM program and does not break these numbers out by Non-FTD versus HFTD/HFRA, etc. Please note that annual cost per mile are currently unavailable for TR, FTI, and MMOM as these programs were introduced in 2023. Program Cost Per Mile Routine \$9,856 based on 2022 Second Patrol \$2.62 based on 2022 FTI Unavailable TR Unavailable MMOM Unavailable b) VM activities on aboveground distribution secondaries occur simultaneously with the activities completed for distribution mains. Please see table in part 'a' for the average cost per mile for VM activities completed within the Routine and Second Patrol program. WMP-Discovery2023_DR_California032-Q005 Page 2 c) Please see table in part 'a' for any costs associated with VM activities in HFTD/HFRA. d) Not applicable as VM does not conduct inspections on right-of-way (ROW) for underground distribution lines.</p>	9	NA	8.2	Vegetation Management and Inspections	NA
484	CAIPA	Set WMP-32	CAIPA_Set WMP-32	6	CAIPA_Set WMP-32_06	<p>Cal Associates understands that, in every project to replace overhead bare distribution with covered conductor, PG&E performs pole loading calculations for every pole in the project.</p> <p>a) Is the above characterization correct? Please elaborate if incorrect.</p> <p>b) Does PG&E have a threshold safety factor (or other result from a pole loading calculation) at which it will replace poles in a project?</p> <p>c) If the answer to part (b) is yes, please describe PG&E's threshold(s).</p> <p>d) If the answer to part (b) is no, please explain how PG&E determines which poles to replace in a project.</p>	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>a) PG&E performs pole loading calculations for every pole that will be supporting the covered conductor.</p> <p>b) PG&E adheres to the requirements of General Order 95, Rule 44. In addition, for covered conductor projects, we adhere to our fire safe design guidance, which is detailed in Chapter 15 of our Electric Design Manual, the relevant portion of which is included as an attachment to WMP-Discovery2023_DR_California032-Q006-DOA0001.pdf.</p> <p>c) Please see the response to subpart (b), which explains the guidelines we follow. If that is not acceptable, please ask the response to subpart (b).</p>	1	NA	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy

485	CaPA	Set WMP-32	CaPA_Set WMP-32	7	CaPA_Set WMP-32_G7	<p>Please provide the results of all pole loading calculations performed as part of all bare-to-covered conductor replacement projects in 2022 and 2023 as of October 1, 2023. This should contain the following information:</p> <ol style="list-style-type: none"> The CAI Estimated safety factor before conductor replacement (bare conductor) Estimated safety factor after conductor replacement (covered conductor) Determination of whether the pole needed replacement based on safety factor Whether the pole was actually replaced. 	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	1	NA	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
486	CaPA	Set WMP-32	CaPA_Set WMP-32	8	CaPA_Set WMP-32_G8	<p>For each year from 2020 through 2023, please provide ten randomly-selected pole loading calculations performed as part of a bare-to-covered conductor replacement project. For these calculations, please provide:</p> <ol style="list-style-type: none"> The full calculation itself. The full calculation itself. Any interpretations associated with the calculation (for example, an engineer's determination that the calculation demonstrates a pole must be replaced). 	Holly Wehman	10/31/2023	1/14/2023	1/14/2023	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	1	NA	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
487	OEBIS	OIS	OEBIS_OIS		OEBIS_OIS_01	<p>Regarding confirmation of 2024/2025 targets:</p> <p>PG&E's 2023-2025 WMP Revision 3, Tables 1.1.2, 2.0.2 and 5.0.1 shows that PG&E expects to close 68,200 backlogging distribution tags in 2024 and 59,000 backlogging distribution tags in 2025. PG&E's targets in Tables 8.3 and 8.4 (PG&E-23-04-2) do not reflect the same expected number of backlogging tags in 2024 and 2025 as shown in Tables 1.1.2, 2.0.2 and 5.0.1. Please explain the discrepancy between the commitment to close 68,200 backlogging distribution tags in 2024 and 59,000 backlogging distribution tags in 2025 (Table 8.3 and 8.4) to the targets outlined in Tables 8.3 and 8.4 (PG&E-23-04-2).</p>	Dariusz Smith	1/19/2023	1/18/2023	1/18/2023	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	0	NA	8.1.7	Open Work Orders	NA
488	CaPA	Set WMP-33	CaPA_Set WMP-33	1	CaPA_Set WMP-33_G1	<p>Please provide an Excel sheet listing (in rows) each asset work order (or "tag") that was open as of June 30, 2023, and was a Level A or B tag. For each tag, provide the following information in separate columns:</p> <ol style="list-style-type: none"> Work order ID number Equipment type HF/DI Asset type: Distribution or transmission GO 95 Rate 15 priority level of the tag IM91-specific priority level (A or B) Date the tag was originally created Date of the original work order Most recent date the work order was respected or modified (if applicable) Date of the work order after it was respected or modified (if applicable) Date the work order was completed (if applicable) 	Aaron Lode	1/19/2023	1/20/2023	1/20/2023	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	1	NA	8.1.7	Open Work Orders	NA
489	CaPA	Set WMP-33	CaPA_Set WMP-33	2	CaPA_Set WMP-33_G2	<p>Please provide an Excel sheet listing (in rows) each asset work order (or "tag") that was open as of September 30, 2023, and was a Level A or B tag. For each tag, provide the following information in separate columns:</p> <ol style="list-style-type: none"> Work order ID number Equipment type HF/DI Asset type: Distribution or transmission GO 95 Rate 15 priority level of the tag IM91-specific priority level (A or B) Date the tag was originally created Date of the original work order Most recent date the work order was respected or modified (if applicable) Date of the work order after it was respected or modified (if applicable) Date the work order was completed (if applicable) 	Aaron Lode	1/19/2023	1/20/2023	1/20/2023	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	1	NA	8.1.7	Open Work Orders	NA
490	CaPA	Set WMP-33	CaPA_Set WMP-33	3	CaPA_Set WMP-33_G3	<p>Please provide an Excel sheet listing (in rows) each asset work order (or "tag") that was open as of November 8, 2023, and was a Level A or B tag. For each tag, provide the following information in separate columns:</p> <ol style="list-style-type: none"> Work order ID number Equipment type HF/DI Asset type: Distribution or transmission GO 95 Rate 15 priority level of the tag IM91-specific priority level (A or B) Date the tag was originally created Date of the original work order Most recent date the work order was respected or modified (if applicable) Date of the work order after it was respected or modified (if applicable) Date the work order was completed (if applicable) 	Aaron Lode	1/19/2023	1/20/2023	1/20/2023	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	1	NA	8.1.7	Open Work Orders	NA
491	CaPA	Set WMP-34	CaPA_Set WMP-34	1	CaPA_Set WMP-34_G1	<p>The following questions pertain to PG&E's 2023-2025 WMP Revision 3, submitted on September 27, 2023:</p> <p>Page 1122 of 1197 2023 WMP-RI discusses the 2023 EPSS Reliability Study's Multiple Outage Review (MOR). Please provide the 2023 EPSS Reliability Study's Multiple Outage Review (MOR) report, including the MOR program as of 12.16.2023.</p> <p>Page 1123 of 1197 2023 WMP-RI discusses the 2023 EPSS Reliability Study's Multiple Outage Review (MOR) program as of 12.16.2023. This program continued into 2023 with 35 circuits having had a detailed MOR (with several of these circuits being on their second or third review) through their August review, generating approximately 1,400 action items. This program continued into 2023 with 35 circuits having had a detailed MOR (with several of these circuits being on their second or third review) through their August review, generating approximately 1,400 action items.</p> <ol style="list-style-type: none"> Please provide a table or Excel sheet showing the results of each MOR for 2023, including the following, in separate columns: <ul style="list-style-type: none"> The CRPs that underwent review. The result of each CRP review. If an action item was not created, provide a brief explanation as to why. Completion date of each action item. The date each action item was completed (if applicable). If an action item was not completed by its due date, provide a brief explanation as to why it was not completed on time. Please provide a table or Excel sheet showing the results of each MOR for 2023, including the following, in separate columns: <ul style="list-style-type: none"> The CRPs that underwent review. The result of each CRP review. If an action item was not created, provide a brief explanation as to why. Completion date of each action item. The date each action item was completed (if applicable). If an action item was not completed by its due date, provide a brief explanation as to why it was not completed on time. 	Justin Hegler	12/12/2023	1/19/2024	1/19/2024	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	1	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
492	CaPA	Set WMP-34	CaPA_Set WMP-34	2	CaPA_Set WMP-34_G2	<p>The criteria for a Multiple Outage Review and Evaluation (MORE) evolved in response to an increased number of customer experiencing outages due to EPSS protection across the system. The MORE process was formalized in 2023 and evolved from a circuit level view to a more targeted device level view with increased maturity. In both years, the primary statement of circuit and device being reviewed was the number of EPSS outages.</p> <p>For 2022, the outage review process included the following for EPSS circuits:</p> <ul style="list-style-type: none"> Number of EPSS Outages (with a minimum of five for the circuit) Escalation from EPSS Leadership Escalation from Customer Team Escalation from Resolving VP Team Circuit is EPSS 3M+ circuit <p>For 2023, the criteria for the MORE process included the following for EPSS circuits:</p> <ul style="list-style-type: none"> Number of EPSS Outages on a rolling 60-day basis (with a minimum of three in that timeframe for the device) Escalation from EPSS Leadership Escalation from Customer Team Escalation from Resolving VP Team If a circuit did not meet the criteria above in part (a), it was not reviewed as a part of the outage review process in 2023. If a device did not meet the criteria above in part (b), it was not reviewed as a part of the MORE process in 2023. 	Justin Hegler	12/12/2023	1/19/2024	1/19/2024	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	0	NA	2022 WMP Section 7.1	Wildfire Mitigation Strategy Development	NA
493	CaPA	Set WMP-34	CaPA_Set WMP-34	3	CaPA_Set WMP-34_G3	<p>Regarding circuits with EPSS capabilities:</p> <ol style="list-style-type: none"> Please provide a table or Excel sheet of complaints and claims filed by customers relating to outages on circuits with the CRPs, names and ID associated with the complaint. The date each complaint or claim was received. The status of each complaint. Resolution of each complaint. Date of each resolution. Action completion date of each resolution. <p>Please include an updated excel sheet of "EPSS Outages Monthly Report 2023/11/01.xlsx" provided to SED that includes a column for "CRP ID" in the "EPSS Outages - 2023 Season" tab.</p>	Justin Hegler	12/12/2023	1/19/2024	1/19/2024	<p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p> <p>https://www.pge.com/content/dam/PGE/Assets/2023-0208BACONCONF.pdf</p>	3	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings

494	CAIPA	Set WMP-34	CAIPA_Set WMP-34	4	CAIPA_Set WMP-34_Q4	<p>PG&E's 2023 WMP R1, p. 1045, states "Name changes including the absorption of CPZs into others resulting in the original CPZ no longer existing. Additionally, p. 416 in Table ENR-EG-2A-5 (Circuit Segments in the 2023 WMP Underpinning Work) but Not Listed in the 2023-2028 Underpinning Work) states, "(a) PG&E often changes circuit segment names when additional segmenting devices are placed on the grid or other grid design changes such as switching circuit." Describe PG&E's circuit segment naming convention when a segmenting device is installed or other grid change would go into effect (e.g., immediately after grid change, end of month, end of fiscal year, etc.)</p> <p>Is there any use of CPZs with EPSS enabled that is a change of name from month to month in the EPSS Monthly Reports to SED, since the first EPSS report was submitted?</p> <p>If the answer to part (b) is yes, please describe (with previous names), current name, date the name change occurred, and the reason for the name change, description of the state of the CPZ (e.g., active or inactive). NOTE: The circuit includes intermediate circuit changes (e.g., improve that CPZ A flows into CPZ A and CPZ B in March 2022, but then in March 2023 CPZ B becomes CPZ C such that CPZ B no longer exists).</p>	Justin Hegler	12/10/2023	12/22/2024	12/22/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
495	CAIPA	Set WMP-34	CAIPA_Set WMP-34	5	CAIPA_Set WMP-34_Q5	<p>Provide an Excel spreadsheet of all distribution circuits in HTDs or High Fire Risk Areas (HFRAs), or crossing HTDs and HFRAs boundaries, existing as of January 1, 2023 (see rows) that includes the following information in separate columns:</p> <p>a) Circuit Name b) Circuit ID c) City d) County e) Division (e.g., Los Padres District #) f) Date PG&E first activated EPSS settings on any part of the circuit? g) Total Customers h) Number of CPZs contained on the circuit i) Circuit SAIDI for 2017 j) Circuit SAIDI for 2018 k) Circuit SAIFI for 2017 l) Circuit SAIFI for 2018 m) Circuit MAIFI for 2017 n) Circuit MAIFI for 2018</p>	Justin Hegler	12/10/2023	12/22/2024	12/22/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	1	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
496	CAIPA	Set WMP-34	CAIPA_Set WMP-34	6	CAIPA_Set WMP-34_Q6	<p>Please describe the data presented in question 5 into performance quartiles based on SAIDI and SAIFI. (An example table is included below the question subparts.)</p> <p>a) Of the distribution circuits listed in responses to Question 5, identify in an Excel spreadsheet format, the best performing (i.e., circuits experiencing the least number of sustained outages) 25% circuits by average combined SAIFI for years 2017 to 2019 in each of your divisions. b) Of the distribution circuits listed in responses to Question 5, identify in an Excel spreadsheet format the worst performing (i.e., circuits experiencing the most sustained outages) 25% circuits by average combined SAIFI for years 2017 to 2019 in each of your divisions. c) Of the distribution circuits listed in responses to Question 5, identify in an Excel spreadsheet format the best performing SAIDI (i.e., circuits experiencing the longest duration of sustained outages) 25% circuits by average combined SAIDI for years 2017 to 2019 in each of your divisions. d) Of the distribution circuits listed in responses to Question 5, identify in an Excel spreadsheet format the worst performing (i.e., circuits experiencing the longest duration of sustained outages) 25% circuits by average combined SAIDI for years 2017 to 2019 in each of your divisions.</p> <p>Example Table: Question 6, Part a</p> <p>Division Circuit Name Average SAIFI 2017-2019 Los Padres San Francisco 1101 1.08 Los Padres Los Angeles 1102 1.01 North Valley Sacramento 1103 1.08</p>	Justin Hegler	12/10/2023	12/22/2024	12/22/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
497	CAIPA	Set WMP-34	CAIPA_Set WMP-34	7	CAIPA_Set WMP-34_Q7	<p>Provide an Excel table that lists (see rows) each sustained outage that occurred from January 1, 2017 through December 31, 2022 on any of the circuits identified in your response to Question 6. For each outage, the Excel table should include the following information in separate columns:</p> <p>a) Outage ID b) Circuit Name c) Division d) Date e) Was EPSS enabled on this circuit at the time of the outage? f) When was this circuit made EPSS-capable? g) PNL (FPE No Light) h) Outage End Day & Time i) CEO (Count of Customers Experiencing Sustained Outage) j) Customer Minutes k) Cause (if known) l) Response Time (minutes)</p>	Justin Hegler	12/10/2023	12/22/2024	12/22/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	2	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
498	CAIPA	Set WMP-34	CAIPA_Set WMP-34	8	CAIPA_Set WMP-34_Q8	<p>Provide an Excel table that lists (see rows) each momentary outage that occurred from January 1, 2017 through December 31, 2022 on any of the circuits identified in your response to Question 6. For each outage, the Excel table should include the following information in separate columns:</p> <p>a) Outage ID b) Circuit Name c) Division d) Date e) Was EPSS enabled on this circuit at the time of the outage? f) When was this circuit made EPSS-capable? g) PNL (FPE No Light) h) Outage End Day & Time i) CEO (Count of Customers Experiencing Sustained Outage) j) Customer Minutes k) Cause (if known) l) Was the circuit established in response to the momentary outage?</p>	Justin Hegler	12/10/2023	12/22/2024	12/22/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	1	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
499	CAIPA	Set WMP-34	CAIPA_Set WMP-34	9	CAIPA_Set WMP-34_Q9	<p>Regarding PG&E's 2021 Reliability Report, PG&E stated "Base reliability projects have been initiated on Garberville 1101 circuit to mitigate the impacts of EPSS, and taking a more surgical approach in applying EPSS settings when the circuit is most at risk." However, PG&E did not report an EPSS outage for Garberville 1101 in 2021. PG&E's first reported outage on Garberville 1101 was on July 24, 2022, 10 months after the 2021 Reliability Report was published. Please explain this discrepancy.</p>	Justin Hegler	12/10/2023	11/9/2024	11/9/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
500	CAIPA	Set WMP-34	CAIPA_Set WMP-34	10	CAIPA_Set WMP-34_Q10	<p>Regarding PG&E's 2021 Reliability Report, PG&E stated "Base reliability project has been initiated on Other 1102 circuit to mitigate the impacts of EPSS, and taking a more surgical approach in applying EPSS settings when the circuit is most at risk." However, PG&E did not report an EPSS outage for Other 1102 in 2021. PG&E's first reported outage on Other 1102 was on August 19, 2022, 13 months after the 2021 Reliability Report was published. Please explain this discrepancy.</p>	Justin Hegler	12/10/2023	11/9/2024	11/9/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
501	CAIPA	Set WMP-34	CAIPA_Set WMP-34	11	CAIPA_Set WMP-34_Q11	<p>In PG&E's November 2022 EPSS Monthly report, PG&E reports that there have been 26 outages on EPSS-enabled Transmission lines (EPSS) outages in the year to date.</p> <p>a) Are these downstream outages (e.g., those that result from a substation that may be served from a substation that may be fed by the transmission line) that result from outages that occur on EPSS-enabled transmission lines? b) Did any of the 26 reported EPSS outages in 2022 cause downstream impacts to other transmission or distribution customers? c) If the answer to part (b) is yes, please describe the extent of the downstream impacts. d) If the answer to part (b) is yes, are these downstream outages reported as EPSS outages in PG&E's monthly EPSS reports or in any other reporting record? e) If the answer to part (b) is yes, why did PG&E not have a backup or contingency transmission circuit(s) in place to avoid downstream distribution outages?</p>	Justin Hegler	12/10/2023	11/9/2024	11/9/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
502	CAIPA	Set WMP-35	CAIPA_Set WMP-35	1	CAIPA_Set WMP-35_Q1	<p>In Table 9-2 of PG&E's 2023-2028 WMP R1 submitted January 8th, 2024, PG&E indicates that system hardening is planned for certain frequently re-energized circuits. Please update Table 9-2 by providing the estimated completion year and quarter for each of the mitigation actions listed in the right-most column ("Measures taken, or planned to be taken, to reduce the need for, and impact of future RPPDF of circuit"). If the timetable for completion is uncertain or undetermined, please so state.</p>	Franky Leo	2/7/2024	2/23/2024	2/23/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	1	NA	9.1.2	Identification of Frequently De-Energized Circuits	NA
503	CAIPA	Set WMP-36	CAIPA_Set WMP-36	1	CAIPA_Set WMP-36_Q1	<p>Please see the separate review for the requested information.</p> <p>2023 Actuals (in \$ 1,000) 2024 Forecast (in \$ 1,000) Route 735E 448,894,125 Route 735E 155,145,818.12 WMP-Discovery-2023-2025_DR_Calabasas-036-Q00646101.xlsx WMP-Discovery-2023-2025_DR_Calabasas-036-Q00111 (P&L Change) 82,842,163 Total Removal Inventory 534,947,852.153 M for Operations 813,285,822.872 Focused Tree Inspections in AOC 87,275,881.342 Total \$1,000 822,824.05</p>	Franky Leo	3/8/2024	3/26/2024	3/26/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	NA	Vegetation Management	NA
504	CAIPA	Set WMP-36	CAIPA_Set WMP-36	2	CAIPA_Set WMP-36_Q2	<p>Please diagnose the data in Table 11 of PG&E's 2023 Q4 QDR such that there is only one Liability Tracking ID for each row. If this is not possible, please explain why and clarify the methodology for grouping certain tracking IDs.</p>	Franky Leo	3/8/2024	3/26/2024	3/26/2024	https://www.pge.com/assets/literature/epss/and-safety/outage-programs/epss-and-safety-cahba-2024-01-01.xlsx	0	NA	QDR	NA	NA

Pre-Discovery 21	CaPA	Set WMP-04	CaPA_Set WMP-04	4	CaPA_Set WMP-04_04	<p>As 2022 WMP forecasts are updated per WMP Initiative Activities as listed in Table 11 from Energy Safety. As the 2022 WMP is a new cycle with new mapping of forecasts by activities that align with the 2022 scenarios, there is not an apples-to-apples re-mapping of costs back to the 2022 WMP view. The comparison can only be made using the 2022 WMP view. Below are the 2022 WMP activities and section numbers where 2024 spending expense forecasts are at least two times the 2022 recorded costs.</p> <ul style="list-style-type: none"> Other technologies and systems not listed above – section 8.1.2.1.2 Microgrids – section 8.1.2.7 Environmental monitoring systems – 8.3.2 Fall-in mitigation 8.3.4 See the response to part (a) NA. As explained in part (a), there is not an apples-to-apples re-mapping of costs back to the 2022 WMP view. The comparison can only be made using the 2022 WMP view. NA. Please refer to the response to part (a) Other technologies and systems not listed above – The 2022 recorded costs are too low to be anticipated weather Other technologies and systems not listed above – The 2022 recorded costs are too low to be anticipated weather Fall-in mitigation – The forecast increase is due to implementing three new VM programs that support fall-in mitigation (VM for Operational Mitigation, Tree Removal Inventory, Focused Tree Inspections). Please refer to the narrative in section 8.3.4 of the 2022 WMP for more details due to missing some costs. The 2022 recorded costs need to be adjusted to be included in the 2022 WMP for Substation animal abatement. We will correct this item in Table 11 pursuant to the 2023-2025 WMP Guidelines from Energy Safety. Microgrids – The projected increase is based on forecast and anticipated projects put forward to the CPUC in PG&E's Microgrid Incentive Program Implementation Plan. The plan is currently awaiting a CPUC Decision. Environmental monitoring systems – The forecast increase is 2023/2024 is mostly driven 	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	0	NA	Section 4.3	Proposed Expenditures	NA
Pre-Discovery 22	CaPA	Set WMP-05	CaPA_Set WMP-05	1	CaPA_Set WMP-05_01	<p>In response to Data Request CaPA/Access-PGE-2022WMP-31 on September 8, 2022, PG&E provided information regarding the Wildlife Distribution Risk Model version 3 (WDRM v3). Please provide an updated response to questions 1-7 of the above-referenced data request, including any new or changed information since PG&E's original response. If the response to a question has not changed, please so indicate.</p>	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	0	NA	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	WDRM v3
Pre-Discovery 23	CaPA	Set WMP-05	CaPA_Set WMP-05	2	CaPA_Set WMP-05_02	<p>1) Have you identified transportation corridors within your service territory where falling or falling trees or poles could potentially fall, ingress and/or regress during an emergency?</p> <p>2) If the answer to part (a) is yes, please describe how you identify such transportation corridors and, if available, please provide a geospatial data file that contains all current identified transportation corridors with ingress and regress headers.</p>	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	0	NA	8.1.3	Asset Inspections	NA
Pre-Discovery 24	CaPA	Set WMP-05	CaPA_Set WMP-05	3	CaPA_Set WMP-05_03	<p>Please fill out the attached spreadsheet: CaPA/Access-PGE-2022WMP-05 Attachment 1, requesting information regarding asset-related corrective notifications on electric circuits that were open at the end of the quarter, as follows:</p> <ol style="list-style-type: none"> Name of the associated circuit ID number of the associated circuit Geographic longitude in decimal degrees, truncated to seven decimal places Geographic latitude in decimal degrees, truncated to seven decimal places Priority of the original notification, using PG&E's internal severity level codes Object/damage code or other internal description of defect Please include column 1 ("Circuit type" (Table 1)) Please complete or specify why each of the below columns is not applicable: <ul style="list-style-type: none"> Column 1 Column 2 Column 3 	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	1	NA	8.1.3	Asset Inspections	Inspections completed in 2022
Pre-Discovery 25	CaPA	Set WMP-05	CaPA_Set WMP-05	4	CaPA_Set WMP-05_04	<p>Please submit Table 13 of the nonpublic data tables in your WMP Quarterly Data Report for Q4 of 2022, which reports asset-related corrective notifications on electric circuits that were open at the end of the quarter, as follows:</p> <ol style="list-style-type: none"> Name of the associated circuit ID number of the associated circuit Geographic longitude in decimal degrees, truncated to seven decimal places Geographic latitude in decimal degrees, truncated to seven decimal places Priority of the original notification, using PG&E's internal severity level codes Object/damage code or other internal description of defect Please include column 1 ("Circuit type" (Table 1)) Please complete or specify why each of the below columns is not applicable: <ul style="list-style-type: none"> Column 1 Column 2 Column 3 	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	2	NA	2022 Q4 QDR	P	tags
Pre-Discovery 26	CaPA	Set WMP-06	CaPA_Set WMP-06	1	CaPA_Set WMP-06_01	<p>Provide your workplan that describes where you will undertake EVM projects in 2023. This workplan should be in Excel format, with circuit-segments as rows. Please include the following information in separate columns in the Excel spreadsheet at a minimum:</p> <ol style="list-style-type: none"> Circuit ID number Circuit ID number Circuit-segment name Circuit-segment ID number EVM risks to be completed in 2023 Risk analysis for the risk segment 	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	0	NA	2023-2025 WMP 8.2.3	Vegetation Management	EVM
Pre-Discovery 27	CaPA	Set WMP-06	CaPA_Set WMP-06	2	CaPA_Set WMP-06_02	<p>Provide your workplan that describes where you will undertake EVM projects in 2024. This workplan should be in Excel format, with circuit-segments as rows. Please include the following information in separate columns in the Excel spreadsheet at a minimum:</p> <ol style="list-style-type: none"> Circuit ID number Circuit ID number Circuit-segment name Circuit-segment ID number EVM risks to be completed in 2024 Risk analysis for the circuit segment 	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	0	NA	2023-2025 WMP 8.2.3	Vegetation Management	EVM
Pre-Discovery 28	CaPA	Set WMP-06	CaPA_Set WMP-06	3	CaPA_Set WMP-06_03	<p>Please see Attachment "WMP-Discovery2023_DR_CaPA/Access-006-0004A0101.xlsx" for actual 2022 EVM mileage data broken down by circuit segment.</p> <p>Column C on tab "2022 EVM Miles Planned" contains the number of miles planned for EVM work in 2022.</p> <p>Column G on tab "2022 EVM Miles Completed" contains the number of miles that were completed and work verified in 2022.</p>	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	1	NA	2022 WMP 7.3.5.2	Vegetation Management and Inspections	Enhanced Vegetation Management
Pre-Discovery 29	CaPA	Set WMP-06	CaPA_Set WMP-06	4	CaPA_Set WMP-06_04	<p>In response to Data Request CaPA/Access-PGE-2022WMP-16, Question 11, March 23, 2022, PG&E stated the following: "Through 2022, the EVM program includes active tree evaluation and hazard tree mitigation, overhead clearing and radial clearance. Starting in 2023, Enhanced VM only includes overhead clearing."</p> <p>1) Is the statement above still accurate as of the date of this request?</p> <p>2) If the answer to part (a) is no, please update the above statement to reflect PG&E's vegetation management strategy for 2023.</p> <p>3) If the answer to part (a) is no, please update the above statement to reflect PG&E's vegetation management strategy for 2024.</p>	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	0	NA	2022 WMP 7.3.5	Vegetation Management and Inspections	Program Costs
Pre-Discovery 30	CaPA	Set WMP-06	CaPA_Set WMP-06	5	CaPA_Set WMP-06_05	<p>In response to Data Request CaPA/Access-PGE-2022WMP-16, Question 16, March 16, 2022, PG&E provided the following table, which shows spending on vegetation management programs in thousands of dollars (actual figures for 2019-2021 and forecast figures for 2022-2025):</p> <p>Please update the table as follows:</p> <ol style="list-style-type: none"> Update the 2022 column to state actual spending in 2022. Update the 2023 column to show PG&E's current forecasts for 2023. Add a column that shows PG&E's current forecasts for 2024. Please add rows as necessary, if any changes in PG&E's vegetation management strategy <p><i>Note: include tree mitigation or categories of activities.</i></p>	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	0	NA	Vegetation Management	NA	NA
Pre-Discovery 31	CaPA	Set WMP-06	CaPA_Set WMP-06	6	CaPA_Set WMP-06_06	<p>Please provide a list of any incidents in 2022 where the actions of a VM contractor created a safety risk to workers and/or the public. "Safety risk" here is defined as any occurrence on a worksite where the contractor's actions created a safety hazard for either workers or the general public.</p> <p>For each incident, please provide:</p> <ol style="list-style-type: none"> The date and time when the safety issue was identified The date the original work that created the safety issue was performed Whether the safety issue concerned a transmission or distribution circuit The vegetation management initiative involved in the original work A brief description of the safety issue involved. 	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	1	NA	Vegetation Management	NA	NA
Pre-Discovery 32	CaPA	Set WMP-06	CaPA_Set WMP-06	7	CaPA_Set WMP-06_07	<p>Note, for CaPA/Access-PGE-2022WMP-14, Question 13, the projects listed in the 2022 columns were only for projects that completed with 2021 completion miles. It did not represent a comprehensive list of 2022 projects. Similarly, the 2023 columns were only for projects that completed with 2021 completed miles. It did not represent a comprehensive list of 2023 projects.</p> <p>Please see Attachment "WMP-Discovery2023_DR_CaPA/Access-006-0007A0101CONIF.xlsx" for a list of all contractors involved safety incidents that took place in 2022. This data includes, but is not limited to: Contractor Name/ID/Type. The contractor/ID/Type covers the incident.</p> <ul style="list-style-type: none"> IncDate: The date of the incident. OutDate: The date the incident was formally reported and logged. Division: The division where the incident took place. IncType: The incident type for the risk. IncDescription: A brief description of the incident. Program: Description on which initiative a contractor was working on, on the date of incident. Corrective Action: A description of the actions PG&E took to prevent recurrence. <p>Please note, both Distribution and Transmission contractor incidents are included in the attachment. These records are pulled from the Enterprise Contractor Incident Records Tool (ECIRT) database. The ECIRT database incident recording process does not have a space for logging Distribution / Transmission circuit information, therefore we are unable to provide that information on the spreadsheet because our system does not track the incidents that way.</p> <p>Note, for CaPA/Access-PGE-2022WMP-14, Question 13, the projects listed in the 2022 columns were only for projects that completed with 2021 completion miles. It did not represent a comprehensive list of 2022 projects. Similarly, the 2023 columns were only for projects that completed with 2021 completed miles. It did not represent a comprehensive list of 2023 projects.</p> <p>Please see Attachment "WMP-Discovery2023_DR_CaPA/Access-006-0007A0101CONIF.xlsx" for a list of all contractors involved safety incidents that took place in 2022. This data includes, but is not limited to: Contractor Name/ID/Type. The contractor/ID/Type covers the incident.</p> <ul style="list-style-type: none"> IncDate: The date of the incident. OutDate: The date the incident was formally reported and logged. Division: The division where the incident took place. IncType: The incident type for the risk. IncDescription: A brief description of the incident. Program: Description on which initiative a contractor was working on, on the date of incident. Corrective Action: A description of the actions PG&E took to prevent recurrence. <p>Please note, both Distribution and Transmission contractor incidents are included in the attachment. These records are pulled from the Enterprise Contractor Incident Records Tool (ECIRT) database. The ECIRT database incident recording process does not have a space for logging Distribution / Transmission circuit information, therefore we are unable to provide that information on the spreadsheet because our system does not track the incidents that way.</p>	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	1	NA	2022 WMP Section 7.3.3.17	Circuit Design and System Hardening	System Hardening

Pre-Discovery 69	CaPA	Set WMP-39	CaPA_Set WMP-39	8	CaPA_Set WMP-39_G8	In response to data request CalAvecos/PG&E-2023WMP-08, Question 8, March 29, 2023, PG&E provided its 2023 system hardening schedule by the categories related to each (M)ID section. Please provide an updated version of the worksheet with additional columns to show the actual system hardening work performed in each circuit segment in 2023 for each of these categories. Please note we need to cover all circuit segments where PG&E performed system hardening work in 2023 (even if those circuit segments were not included in the original analysis). a) Installation of covered conductor b) Installation of underground conductor c) Removal of overhead conductor d) Removal of overhead conductors associated with towers and work	Holly Wehman	3/22/2024	4/5/2024		NA	2023 WMP Section 8.1.2.5	System Hardening	NA
Pre-Discovery 70	CaPA	Set WMP-39	CaPA_Set WMP-39	9	CaPA_Set WMP-39_G9	Provide your worksheet that describes where and when you will perform system hardening on distribution circuits in 2025. For projects that you expect to partially complete in 2025 (i.e., projects that started before 2025 and are expected to continue in 2025, or projects that are expected to be completed after 2025), please include the project and describe the work that is forecast to be performed in calendar year 2025. For each project, include the following information in separate columns, at a minimum: a) Order number b) MAT code c) Program d) Circuit ID number e) Circuit segment name or ID number (if the project affects more than one circuit segment, please identify each one) f) Requested wildfire risk score(s) from the wildfire risk model that you are using to estimate distribution risk in your 2025 WMP Update filing g) The expected or actual start date of the project h) The expected completion date of the project i) Length (in circuit miles) of overhead conductor to be installed in 2025 j) Length (in circuit miles) of underground conductor to be installed in 2025 k) Length (in circuit miles) of overhead conductor to be permanently removed in 2025 and replaced by underground conductor (note that this may differ slightly from the previous section due to differing overhead and underground nodes) l) Length (in circuit miles) of overhead conductor to be permanently removed in 2025 and not replaced with covered conductor or underground m) Length (in circuit miles) of any other type of system hardening project to be installed in 2025 (if this is greater than zero, please describe the type of system hardening project) n) Location-specific underground effectiveness o) Location-specific effectiveness of alternate installation	Holly Wehman	3/22/2024	4/5/2024		NA	2023 WMP Section 8.1.2.5	System Hardening	NA
Pre-Discovery 71	CaPA	Set WMP-39	CaPA_Set WMP-39	10	CaPA_Set WMP-39_O10	For each of your 2023-2025 WMP system hardening initiatives, please provide disaggregated information related to expenditures for circuit miles provided in the attached spreadsheet, CalAvecos/PG&E-2023WMP-03 attachment 2. Do not include any expenses. On page 48 of PG&E's 2023-2025 WMP RA, January 8, 2024, PG&E provided Table PG&E-R-3.3.3 shown below. Please provide an updated version of this table (preferably in Excel format) with actuals from 2023 and projections for 2024, 2025, and 2026.	Holly Wehman	3/22/2024	4/5/2024		NA	2023 WMP Section 8.1.2.5	System Hardening	NA
Pre-Discovery 72	CaPA	Set WMP-39	CaPA_Set WMP-39	11	CaPA_Set WMP-39_O11	On October 1, 2023, the Wildlife Safety Advisory Board held a meeting. Four documents related to PG&E's ground-level overhead/wildlife safety advisory board meeting 10-2-2023. Please provide confidential (i.e., unredacted) copies of these four documents: a) Project Final Report b) Product Information c) Risk Construction Report	Holly Wehman	3/22/2024	4/5/2024		NA	2023 WMP Section 8.1.2.5	System Hardening	NA
Pre-Discovery 73	CaPA	Set WMP-39	CaPA_Set WMP-39	12	CaPA_Set WMP-39_O12	Identify any ignitions in 2023 associated with assets where you had an existing corrective notification at the time of the ignition. Please provide a spreadsheet listing each such ignition (as rows) with the following information in separate columns: a) Unique ignition ID b) Date of ignition c) Cause of ignition d) Type of asset associated with the ignition e) Number of structures burned, if any f) Number of ignites associated with ignition, if any g) Asset ID of asset associated with ignition h) Circuit ID number of circuit associated with ignition	Holly Wehman	3/22/2024	4/5/2024		NA	8.0 Wildfire Mitigations	Section 8.3 - Situational Awareness and Forecasting	8.3.4.1 Existing Ignition Detection Sensors and Systems
Pre-Discovery 74	CaPA	Set WMP-39	CaPA_Set WMP-39	13	CaPA_Set WMP-39_O13	Identify any ignitions in 2023 associated with assets where you had an existing corrective notification at the time of the ignition. Please provide a spreadsheet listing each such ignition (as rows) with the following information in separate columns: a) Unique ignition ID b) Date of ignition c) Cause of ignition d) Type of asset associated with the ignition e) Number of structures burned, if any f) Number of ignites associated with ignition, if any g) Asset ID of asset associated with ignition h) Circuit ID number of circuit associated with ignition	Holly Wehman	3/22/2024	4/5/2024		NA	8.0 Wildfire Mitigations	Section 8.3 - Situational Awareness and Forecasting	8.3.4.1 Existing Ignition Detection Sensors and Systems
Pre-Discovery 75	CaPA	Set WMP-39	CaPA_Set WMP-39	14	CaPA_Set WMP-39_O14	In response to data request CalAvecos/PG&E-2023WMP-10 question 15, April 26, 2023, PG&E stated that it was actively analyzing the effectiveness of both covered conductor and bare conductor in combination with EPSS and ECPDS. PG&E stated that it anticipated completing this analysis in 2023. a) Has PG&E completed the analysis mentioned above? b) If the answer to part (a) is yes, please provide a copy of any reports or other output from the analysis. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please state when PG&E currently expects to complete this analysis.	Holly Wehman	3/22/2024	4/5/2024		NA	8.0 Wildfire Mitigations	Section 8.3 - Situational Awareness and Forecasting	8.3.4.1 Existing Ignition Detection Sensors and Systems
Pre-Discovery 76	CaPA	Set WMP-39	CaPA_Set WMP-39	15	CaPA_Set WMP-39_O15	On page 548 of PG&E's 2023-2025 WMP RA, January 8, 2024, PG&E stated that it was revising its field safety reassessment procedure (TD-812P-200) and expected to publish the revised procedure by the end of 2023. a) Has PG&E published the revised TD-812P-200 procedure? b) If the answer to part (a) is yes, briefly describe the substance of the changes to the procedure. c) If the answer to part (a) is yes, please provide a copy of the updated version of TD-812P-200. d) If the answer to part (a) is no, please explain the delay. e) If the answer to part (a) is no, please state when PG&E currently expects to publish the revised TD-812P-200 procedure.	Holly Wehman	3/22/2024	4/5/2024		NA	8.0 Wildfire Mitigations	Section 8.1.7 - Open Work Orders	8.1.7.2 Open Work Orders - Distribution Type
Pre-Discovery 77	CaPA	Set WMP-39	CaPA_Set WMP-39	16	CaPA_Set WMP-39_O16	In response to data request CalAvecos/PG&E-2023WMP-19 question 15, April 26, 2023, PG&E stated that it was actively analyzing the effectiveness of both covered conductor and bare conductor in combination with EPSS and ECPDS. PG&E stated that it anticipated completing this analysis in 2023. a) Has PG&E completed the analysis mentioned above? b) If the answer to part (a) is yes, please provide a copy of any reports or other output from the analysis. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please state when PG&E currently expects to complete this analysis.	Holly Wehman	3/22/2024	4/5/2024		NA	8.1.2	Circuit Design and System Hardening	Various
Pre-Discovery 78	CaPA	Set WMP-39	CaPA_Set WMP-39	17	CaPA_Set WMP-39_O17	In response to data request CalAvecos/PG&E-2023WMP-27 question 5, August 18, 2023, PG&E stated that it responded to complete its Substation Animal Abatement Effectiveness Study in partnership with Electric Power Research Institute by Q1 of 2024. a) Has PG&E completed the Substation Animal Abatement Effectiveness Study? b) If the answer to part (a) is yes, please provide a copy of any reports or other output from the Substation Animal Abatement Effectiveness Study. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please state when PG&E currently expects to complete the Substation Animal Abatement Effectiveness Study.	Holly Wehman	3/22/2024	4/5/2024		NA	8.1.2, 12.2	Circuit Design and System Hardening	Other Technologies and Systems - Substation Animal Abatement
Pre-Discovery 79	CaPA	Set WMP-39	CaPA_Set WMP-39	18	CaPA_Set WMP-39_O18	In response to data request CalAvecos/PG&E-2023WMP-27 question 6, August 18, 2023, PG&E stated that it was finalizing a study to assess the recorded reliability improvements at locations that have been undergrounded and/or have been hardened with covered conductor. PG&E stated that it anticipated completing this study in October of 2023. a) Has PG&E completed the study mentioned above? b) If the answer to part (a) is yes, please provide a copy of any reports or other output from the study. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please state when PG&E currently expects to complete this study.	Holly Wehman	3/22/2024	4/5/2024		NA	Appendix D	Appendix D - Areas for Continued Improvement	Appendix D ACI PG&E-20-16 Progress and Updates on Undergrounding and Risk Prioritization
Pre-Discovery 80	CaPA	Set WMP-39	CaPA_Set WMP-39	19	CaPA_Set WMP-39_O19	In response to data request CalAvecos/PG&E-2023WMP-29 question 5, September 27, 2023, PG&E stated that it expected to publish its 2023 Electric Asset Management Plan by the end of 2023. a) Has PG&E completed the 2023 Electric Asset Management Plan? b) If the answer to part (a) is yes, please provide a copy of the 2023 Electric Asset Management Plan. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please state when PG&E currently expects to publish the 2023 Electric Asset Management Plan.	Holly Wehman	3/22/2024	4/5/2024		NA	NA	NA	NA
Pre-Discovery 80	CaPA	Set WMP-39	CaPA_Set WMP-39	19REV	CaPA_Set WMP-39_O19	In response to data request CalAvecos/PG&E-2023WMP-29 question 5, September 27, 2023, PG&E stated that it expected to publish its 2023 Electric Asset Management Plan by the end of 2023. a) Has PG&E completed the 2023 Electric Asset Management Plan? b) If the answer to part (a) is yes, please provide a copy of the 2023 Electric Asset Management Plan. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please state when PG&E currently expects to publish the 2023 Electric Asset Management Plan.	Holly Wehman	3/22/2024	6/15/2024		NA	NA	NA	NA
Pre-Discovery 81	CaPA	Set WMP-39	CaPA_Set WMP-39	20	CaPA_Set WMP-39_O20	In response to data request CalAvecos/PG&E-2023WMP-29 question 6, September 27, 2023, PG&E stated the following: "We will evaluate the history of response to wire down conditions in the HFRANFTD, occurring during the traditional peak wildfire season of (between) May 1 and November 1, going back to 2020. We can compare that analysis by December 31, 2023." a) Has PG&E completed the analysis mentioned above? b) If the answer to part (a) is yes, briefly describe your findings. c) If the answer to part (a) is no, please explain the delay. d) If the answer to part (a) is no, please explain the delay. e) If the answer to part (a) is no, please state when PG&E currently expects to complete this analysis.	Holly Wehman	3/22/2024	4/5/2024		NA	8.2.3.4	Vegetation Management and Inspections	Fish in Mitigation