Link to Discovery Responses: https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan-discovery-data-requests.page																	
Count	Party Name	Data Set	Data Request	Question No.	Question ID	Question Text	Responses	Requestor	Date Rec'd	Final Due Date	Date Sent	Links	Number of Atchs	NDA Required	WMP Section	Category	Subcategory
1	CalPA	Set WMP-07	CalPA_Set WMP-07	1	CalPA_Set WMP-07_Q1	In the review of PG&E's WDRM v3 by Energy & Environmental Economics, Inc. ("E3 Review"), the authors note: "There were also several refreshes to PG&E asset data, now current to 2022-01- 01, and inclusion of updated internally sourced meteorology datasets." 3 a) Please confirm that no asset data collected after January 1, 2022 was used in the WDRM v3. b) If asset data collected after January 1, 2022 was used in PG&E's WDRM v3, please specify the date(s) on which any such data was collected. c) Please confirm that "asset data" in parts 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 EDGIS system on January 1, 2022, with the exception of the transformer data which was extracted from EDGIS on February 2, 2022. b) See answer to part a. c) See answer to part a.	Joshua Borkowski	3/27/2023	3/30/2023	3/30/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_007.zip	0	N/A	6.2	Risk Methodology and Assessment	Risk Analysis Framework
2	CalPA	Set WMP-07	CalPA_Set WMP-07	2	CalPA_Set WMP-07_Q2	Page 15 of the E3 Review includes a list of components included in the WDRM v3. 4 a) Please confirm the date that the WDRM v3 was finalized. b) 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 WDRM v3. c) For any inputs included in your response to Question 2(b) that do not appear on Page 15 of the E3 review, please provide the latest date on which each	a) The Wildfire Distribution Risk Model (WDRM) v3 was finalized by approval at the Wildfire Risk Governance Steering Committee (WRGSC) on April 13, 2022. b) The 8 asset groups listed on page 15 of the E3 Review are included in the WDRM v3 but are grouped into the sub-models listed in Figure 5 Sub-model Predictive Performance Measures on page 21 of the E3 Review document.	Joshua Borkowski	3/27/2023	3/30/2023	3/30/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_007.zip	0	N/A	6.2	Risk Methodology and Assessment	Risk Analysis Framework
3	CalPA	Set WMP-07	CalPA_Set WMP-07	3	CalPA_Set WMP-07_Q3	a) Please Confirm the date that the WRDM v4 was finalized. If it has not been finalized, please provide an estimatedate on which it will be finalized. b) Please provide a current list of components that are used as inputs in v4 of the WDRM model. c) Please state the date of 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 date(s) on which the data used in the model	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 EDGIS on January 1, 2023. d) Please see the response to 3c.	Joshua Borkowski	3/27/2023	3/30/2023	3/30/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_007.zip	0	N/A	6.2	Risk Methodology and Assessment	Risk Analysis Framework
4	MGRA	Data Request No. 1	MGRA_Data Request No. 1	1	MGRA_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 OEIS GIS Data Standard Submission. PG&E is also 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	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	1	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
4	MGRA	Data Request No. 1	MGRA_Data Request No. 1	1 SUPP	MGRA_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 OEIS GIS Data Standard Submission. PG&E is also 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/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	4	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
5	MGRA	Data Request No. 1	MGRA_Data Request No. 1	2	MGRA_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	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
5	MGRA	Data Request No. 1	MGRA_Data Request No. 1	2 SUPP	MGRA_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/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
6	MGRA	Data Request No. 1	MGRA_Data Request No. 1	3	MGRA_Data Request No. 1_Q3	Provide PSPS Event data. Include Event Log, Event Line, Event Polygon data. Please exclude customer meter data. Provide all PSPS Event Asset Damage data including photos	In response to this request, PG&E is unable to provide PSPS Event data, PSPS Event Damages data, and PSPS Damage photos since there were no PSPS Events that took place throughout 2022	Joseph Mitchell	3/29/2023	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
6	MGRA	Data Request No. 1	MGRA_Data Request No. 1	3 SUPP	MGRA_Data Request No. 1_Q3 SUPP	Provide PSPS Event data. Include Event Log, Event Line, Event Polygon data. Please exclude customer meter data. Provide all PSPS Event Asset Damage data including photos	In response to this request, PG&E is unable to provide PSPS Event data, PSPS Event Damages data, and PSPS Damage photos since there were no PSPS Events that took place throughout 2022	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
7	MGRA	Data Request No. 1	MGRA_Data Request No. 1	4	MGRA_Data Request No. 1_Q4	Provide Risk Event Point data, including Wire Down, Ignition, Transmission unplanned outage (as classified non-confidential), Distribution Unplanned Outage data, Distribution Vegetation Caused Unplanned Outage, Risk Event Asset Log	In response to this request, PG&E is providing non-confidential data for the Wire Down, Ignition, Transmission Unplanned Outage, Distribution Unplanned Outage, Distribution Vegetation Caused Unplanned Outage, and Risk Event Asset Log feature classes and related table.	Joseph Mitchell	3/29/2023	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
7	MGRA	Data Request No. 1	MGRA_Data Request No. 1	4 SUPP	MGRA_Data Request No. 1_Q4 SUPP	Provide Risk Event Point data, including Wire Down, Ignition, Transmission unplanned outage (as classified non-confidential), Distribution Unplanned Outage data, Distribution Vegetation Caused Unplanned Outage, Risk Event Asset Log	In response to this request, PG&E is providing non-confidential data for the Wire Down, Ignition, Transmission Unplanned Outage, Distribution Unplanned Outage, Distribution Vegetation Caused Unplanned Outage, and Risk Event Asset Log feature classes and related table.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
8	MGRA	Data Request No. 1	MGRA_Data Request No. 1	5	MGRA_Data Request No. 1_Q5	Provide photo data for Risk Events.	PG&E does not have any non-confidential or non-privileged 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	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
8	MGRA	Data Request No. 1	MGRA_Data Request No. 1	5 SUPP	MGRA_Data Request No. 1_Q5 SUPP	Provide photo data for Risk Events.	PG&E does not have any non-confidential or non-privileged 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/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
9	MGRA	Data Request No. 1	MGRA_Data Request No. 1	6	MGRA_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 Rebuild, and 10K Undergrounding WMP initiative programs that were included in the Grid Hardening Log, Grid Hardening Point, and Grid Hardening Line feature classes and related table. Additional initiative projects reported in these feature classes includes data on where PG&E's fuse replacements, switch replacements, surge arrester replacements, and SCADA	Joseph Mitchell	3/29/2023	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
9	MGRA	Data Request No. 1	MGRA_Data Request No. 1	6 SUPP	MGRA_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 Rebuild, and 10K Undergrounding WMP initiative programs that were included in the Grid Hardening Log, Grid Hardening Point, and Grid Hardening Line feature classes and related table. Additional initiative projects reported in these feature classes includes data on where PG&E's fuse replacements, switch replacements, surge arrester replacements, and SCADA	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
10	MGRA	Data Request No. 1	MGRA_Data Request No. 1	7	MGRA_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 table and feature class. Additional WMP initiative projects reported in this feature class and related table includes data on where PG&E's Line Sensor Installations, Distribution Fault Anticipation, EPSS Reliability Improvements and Early Fault	Joseph Mitchell	3/29/2023	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
10	MGRA	Data Request No. 1	MGRA_Data Request No. 1	7 SUPP	MGRA_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 table and feature class. Additional WMP initiative projects reported in this feature class and related table includes data on where PG&E's Line Sensor Installations, Distribution Fault Anticipation, EPSS Reliability Improvements and Early Fault	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
11	MGRA	Data Request No. 1	MGRA_Data Request No. 1	8	MGRA_Data Request No. 1_Q8	Under Other Required Data, please provide Red Flag Warning Day polygon data.	PG&E is providing the Red Flag Warning Day polygon data, as requested by MGRA.	Joseph Mitchell	3/29/2023	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
11	MGRA	Data Request No. 1	MGRA_Data Request No. 1	8 SUPP	MGRA_Data Request No. 1_Q8 SUPP	Under Other Required Data, please provide Red Flag Warning Day polygon data.	PG&E is providing the Red Flag Warning Day polygon data, as requested by MGRA.	Joseph Mitchell	3/29/2023	4/13/2023	4/13/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
12	MGRA	Data Request No. 1	MGRA_Data Request No. 1	9	MGRA_Data Request No. 1_Q9	Please provide a layer indicating calculated circuit-level risk using the methodology presented in the WMP. a. If independent probability and consequence layers exist, please provide these independently as well.	The method described in the 2023 WMP to aggregate model results is conducted to produce a circuit segment level risk value but it is not used to produce a circuit level risk value. However, the geospatial representation of circuit 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 produce without the requesting party agreeing to protect the information through a non-	Joseph Mitchell	3/29/2023	4/10/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
12	MGRA	Data Request No. 1	MGRA_Data Request No. 1	9 SUPP	MGRA_Data Request No. 1_Q9 SUPP	Please provide a layer indicating calculated circuit-level risk using the methodology presented in the WMP. a. If independent probability and consequence layers exist, please provide these independently as well.	The method described in the 2023 WMP to aggregate model results is conducted to produce a circuit segment level risk value but it is not used to produce a circuit level risk value. However, the geospatial representation of circuit 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 produce without the requesting party agreeing to protect the information through a non-	Joseph Mitchell	3/29/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_001.zip	1	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
13	CalPA	Set WMP-08	CalPA_Set WMP-08	1	CalPA_Set WMP-08_Q1	PG&E's WMP states: The EVM 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 clearances that were achieved in EVM to Routine VM patrols. We established routine maintenance requirements for electric distribution circuits where EVM scope clearances have been performed (in HFTD	a) 1) 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 HFRA. 2) There is an anticipated increase of tree removals vs trims as it is the first course of action recommended at time of listing per the Distribution Vegetation Inspection Procedure (DRP). Funding has been provided to account for increased removals. 3) There are tighter controls through reports and monitoring of work	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
14	CalPA	Set WMP-08	CalPA_Set WMP-08	2	CalPA_Set WMP-08_Q2	Regarding the new "Tree Removal Inventory Program" described in section 8.2.2.2.4 of PG&E's WMP, PG&E states: This is a new transitional program for 2023 stemming from the conclusion of the EVM program. This program is intended to work down trees previously identified. PG&E estimates that our EVM inventory included more than 300,000 trees at the end of 2022. Under the Tree Removal	a) For this program the use of 'Transitional' represents the program transition from EVM to our new Tree Inventory Program, which will focus on working down the risk associated with the remaining 385K. These units were identified under EVM guidelines and will be over a period of time based on resolution of constraints or other factors that hindered completion of work. b) Yes, but not under the Tree Removal Inventory Program, which is focused on removing risk	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
15	CalPA	Set WMP-08	CalPA_Set WMP-08	3	CalPA_Set WMP-08_Q3	Regarding the new "VM for Operational Mitigations" described in section 8.2.2.2.3 of PG&E's WMP, PG&E 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 ignitions using a risk-informed, targeted plan to mitigate potential vegetation contacts based on historic vegetation outages on	a) Our wildfire mitigation capabilities have continued to evolve and mature since 2019. With the conclusion of Enhanced Vegetation Management (EVM) at the end of 2022, we continue to evolve our Vegetation Management program. The use of 'transitional' for this program represents the evolution of the Vegetation Management program through the transition from dedicated programs, Vegetation Management for Operational Mitigations (VMOM),	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.3	Vegetation Management and Inspections	VM for Operational Mitigations
16	CalPA	Set WMP-08	CalPA_Set WMP-08	4	CalPA_Set WMP-08_Q4	Regarding the new "Focused Tree Inspections" described in section 8.2.2.2.5 of PG&E's WMP, PG&E states: This is a new transitional program for 2023 stemming from the conclusion of the EVM program. PG&E is developing AOCs to better focus VM efforts to address high risk areas that have experienced higher volumes of vegetation damage during PSPS events, outages, and/or ignitions	a) Similar to TRI and VMOM programs, the Focus Tree Inspection (FTI) program has been developed following the conclusion of EVM in 2022. For this program "Transitional" is used to recognize similar targeted efforts to reduce risk formerly associated with EVM that go beyond compliance mandated clearances. All three programs are intended to further reduce vegetation related outages and ignitions.	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
17	CalPA	Set WMP-08	CalPA_Set WMP-08	5	CalPA_Set WMP-08_Q5	PG&E's WMP, p. 539 of its WMP: PG&E is restructuring our 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 EPSS program that was introduced in 2021.8 a) Please describe the abovementioned "data and analysis" that shows that "the risk reduction of	a) PG&E introduced the comparison of risk reduction and Risk Spend Efficiency (RSE) of EPSS vs EVM in the 2022 WMP and 2023 GRC Supplemental Filing in February 2022. This comparison is described in the 2023 GRC, Exhibit 3 Chapter 4 page 3-2 through 3-7. The updated wildfire mitigation strategy is summarized in Table 3-4 on page 3-39, as the risk reduction relative to spend between EVM and EPSS is substantially in EPSS's favor.	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.3.4	Vegetation Management and Inspections	Fall-In Mitigation
18	CalPA	Set WMP-08	CalPA_Set WMP-08	6	CalPA_Set WMP-08_Q6	On pp. 314-316 of PG&E's WMP, PG&E divides its operational mitigations into four different groups. Group 2 includes "inspections and maintenance programs where we exceed compliance requirements until permanent mitigations are deployed and/or we implement new technologies so that we no longer need to exceed compliance requirements." For the following Group 2 mitigations, please state the criteria by which PG&E will determine that it no longer needs to	a) Yes, "PVD" refers to Partial Voltage Detection. b) Yes, "DCD" refers to Downed Conductor Detection. c) Partial Voltage Detection (and subsequent force outs of the nearest upstream SCADA capable device) are part of a "defense in depth" strategy that supplements the already highly effective baseline Enhanced Powerline Safety Settings (EPSS). In particular, Partial Voltage Force Out	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.3.4	Vegetation Management and Inspections	Fall-In Mitigation
19	CalPA	Set WMP-08	CalPA_Set WMP-08	7	CalPA_Set WMP-08_Q7	PG&E states on p. 539 of its WMP: Additional Operational Mitigations such as PVD and DCD will also help to mitigate risk previously prescribed to EVM. As a result, PG&E concluded the EVM Program at the end of 2022. a) Does "PVD" stand for "Partial Voltage Detection" in this instance? Please define if not. b) Does "DCD" stand for "Downed Conductor Detection" in this instance? Please define if not.	PG&E does not currently have specific criteria for the listed mitigations, though certain permanent mitigations (e.g. distribution undergrounding) may reduce risk to a point where exceeding compliance is no longer needed. Continued analysis of ignitions, inspection finds, technology implementation results, etc. will inform the level of interim mitigation needed. We will continue to implement the Group 2 mitigations based on risk or benefit	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	7.2.3	Wildfire Mitigation Strategy Development	Interim Mitigation Initiatives

20	CalPA	Set WMP-08	CalPA_Set WMP-08	8	CalPA_Set WMP-08_Q8	On pp. 314-316 of PG&E's WMP, PG&E divides its operational mitigations into four different groups. Group 2 includes "Inspections and maintenance programs where we exceed compliance requirements until permanent mitigations are deployed and/or we implement new technologies so that we no longer need to exceed compliance requirements." For each of the following Group 2 mitigations, please state whether PG&E intends to discontinue	At this time PG&E does not intend to discontinue any of the programs/initiatives listed in Group 2 mitigation. The programs/initiatives are designed and implemented to ensure that PG&E maintains compliance with state and federal regulations, as well as mitigate portions of the system that may be exposed to wildfire risk that cannot be managed through our	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	7.2.3	Wildfire Mitigation Strategy Development	Interim Mitigation Initiatives
21	CalPA	Set WMP-08	CalPA_Set WMP-08	9	CalPA_Set WMP-08_Q9	Regarding the new "Tree Removal Inventory Program" described in section 8.2.2.2.4 of PG&E's WMP, PG&E states: "PG&E estimates that our EVM inventory included more than 300,000 trees at the end of 2022." Table 8-14, PG&E's VM Targets, p. 502, states that PG&E will remove approximately 60,000	a) Yes, the 60K trees come from the group of approximately 385K EVM trees remaining. We plan to work down the risk associated with the 385K trees starting with 15K trees in 2023, 20K trees in 2024, and 25K trees in 2025, which results in 60K trees being worked through 2025. b) PG&E has operational mitigations including EPSS enablement in place. Additionally, PG&E	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
22	CalPA	Set WMP-08	CalPA_Set WMP-08	10	CalPA_Set WMP-08_Q10	Per Table 8-12, Vegetation Management Implementation Objectives, PG&E's Focused Tree Inspection Program is currently under development. By the end of 2025, PG&E plans to "Fully implement AOC cross-functional team to implement guidelines across all AOCs." Given that PG&E's EVM program has been discontinued, and that its Focused Tree Inspection Program has not yet been fully developed, how will PG&E assess the risk of tree failure, including the	PG&E will continue to assess the risk of tree fail-ins during the period from 2023-2025 through the Distribution Routine and Second Patrol programs accordingly. The identification of hazardous or other emergent priority trees is embedded into all VM tree trimming and mitigation programs, as well as the resulting work verification and quality programs. In addition to the Focused Tree Inspection Program, PG&E has also introduced the Tree-	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
23	CalPA	Set WMP-08	CalPA_Set WMP-08	11	CalPA_Set WMP-08_Q11	Table 8-14, PG&E's VM Targets, states that PG&E will collect LiDAR data on its Transmission System (17,500 circuit miles). Table 5-2, Electrical Infrastructure, states that PG&E has a total of 18,111 circuit miles of overhead transmission lines. a) Does PG&E plan to not collect LiDAR data on approximately 600 overhead circuit miles of	a) No, PG&E will collect LiDAR data on all overhead Transmission circuit miles. b) N/A c) The difference between LiDAR Transmission inspections mapped on ETGIS and our LiDAR vendor's data is due largely to parallel circuits and some geometry differences; miles are	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.1.1	Vegetation Management and Inspections	Routine Transmission NERC and Non-NERC
24	CalPA	Set WMP-08	CalPA_Set WMP-08	12	CalPA_Set WMP-08_Q12	Table 8-14, PG&E's 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." Please describe the actions PG&E will take during the 2023-2025 period if a program does not achieve a 95% pass rate on quality verification audits.	Should a program fall below a 95% pass rate, catch back plans will be developed in partnership with VM execution to mitigate for specific cause of deficient rate.	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
25	CalPA	Set WMP-08	CalPA_Set WMP-08	13	CalPA_Set WMP-08_Q13	Table 8-18-1, Vegetation Management QV Program, lists the following audit pass results for 2022 VM work: Distribution: 91.3% Transmission: 94.2% Vegetation Control Pole Clearing: 90.3%	a) Improved quality verticals have been established for 2023, allowing for greater insight into overall VM work product throughput 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 Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.5.1	Vegetation Management and Inspections	Quality Assurance and Quality Verification
26	CalPA	Set WMP-08	CalPA_Set WMP-08	14	CalPA_Set WMP-08_Q14	Regarding the "Distribution Second Patrol" described in section 8.2.2.2.2 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 HFTD areas and within 365 days for non-HFTD areas." 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	b) To ensure that dead/dying tree work is completed with 180 days in HFTD and 365 days in non-HFTD, 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 and dying trees and their timelines and timeliness status. This measure ensures	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.2.2	Vegetation Management and Inspections	Distribution Second Patrol
27	CalPA	Set WMP-08	CalPA_Set WMP-08	15	CalPA_Set WMP-08_Q15	Regarding the "Defensible Space Inspection" described in section 8.2.2.3.1 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 substation defensible space zones extend into privately owned property." a) Where substation defensible space zones extend into privately owned property, what is	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 fuel reduction and PRC 4291 compliance prescription determined. If access is denied and found to be without applicable easements, other land rights or valid entry	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.2.3.1	Vegetation Management and Inspections	Defensible Space Inspection
28	CalPA	Set WMP-08	CalPA_Set WMP-08	16	CalPA_Set WMP-08_Q16	Regarding "Wood and Slash Management" described in section 8.2.3.2 of PG&E's WMP, PG&E states: "Chips are left on site or removed off site based on owner preferences." PG&E further states that "Wood Management is a voluntary program in which property owners must opt in to participate." a) If PG&E is unable to contact a landowner, how does it manage wood chips?	a) If 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 lop and scatter debris on site in accordance with applicable regulations. b) There are multiple real-time opportunities for landowners to request wood management: PG&E	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management
29	CalPA	Set WMP-08	CalPA_Set WMP-08	17	CalPA_Set WMP-08_Q17	Regarding "High-Risk Species" described in section 8.2.3.6 of PG&E's WMP, PG&E states: "There are no governing standards for high-risk species." a) Does PG&E plan to develop governing standards for high-risk species? b) If the answer to part (a) is yes, when does PG&E expect to complete development of such standards?	a) For Routine and Second Patrol, PG&E does not currently have standards oppecific to high-risk species. Trees identified during these inspections cycles that require mitigation per PRC4293 and GO95 Rule 35 are expected to be identified and listed for work regardless of species. A new program, Focused Tree Inspection (FTI) is being piloted starting in Q2 2023 and will incorporate	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.3.6	Vegetation Management and Inspections	High-Risk Species
30	CalPA	Set WMP-08	CalPA_Set WMP-08	18	CalPA_Set WMP-08_Q18	PG&E's WMP states, in Table 8-18-3, VM Field QC Metrics Report, that pass rates are "not a WMP target" for 2023-2025. Please explain why PG&E has not set target pass rates for VM Field QC for 2023-2025.	The Quality Management team has aligned on setting target pass rates at 88% for Field Quality Control Active Observation Programs for the following core vegetation management programs: Routine Distribution, Second Patrol Distribution, Vegetation Control, and Routine Transmission.	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	0	N/A	8.2.5.2	Vegetation Management and Inspections	Quality Control
31	CalPA	Set WMP-08	CalPA_Set WMP-08	19	CalPA_Set WMP-08_Q19	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. Please provide a table with the following additional information for these 296 trees: a) The exact number of days since the last inspection, as of February 28, 2023 b) The current priority level of the tree	The data for the 296 P1/P2/Second Patrol trees can be found on "WMP Discovery2023_DR_CalAdvocates_008-Q019Atch01.xlsx" For the 3 Priority 1/Priority 2 Trees out of the set of 296, please refer to tab 'P2 Data'. a) Please see 'Age' in 'Column I' on tab 'P2 Data' for the age in days since the last inspection as	Holly Wehrman	3/30/2023	4/5/2023	4/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_008.zip	1	N/A	8.2.6	Vegetation Management and Inspections	Open Work Orders
32	CalPA	Set WMP-09	CalPA_Set WMP-09	1	CalPA_Set WMP-09_Q1	P. 10 of PG&E's WMP states, "We have completed certain programs and removed some less impactful targets from the 2023 WMP." a) Please list the "less impactful" targets that were removed from the 2023 WMP. b) For each target in part (a), please explain how PG&E determined that the target was "less impactful."	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 properly described as not being the best choice for our wildfire mitigation portfolio at this particular point in time. • Weather Station Installation and Optimization – PG&E did not include a target for weather station	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	1	Executive Summary & Overview	N/A
33	CalPA	Set WMP-09	CalPA_Set WMP-09	2	CalPA_Set WMP-09_Q2	P. 107 of PG&E's WMP states, "Increased temperatures can cause electric equipment to age more quickly which will increase the need for more frequent asset replacements. Higher temperatures may cause equipment to fail resulting in customer outages." a) What steps has PG&E taken to mitigate the increased risk of asset failure anticipated from rising temperatures?	PG&E notes that this statement is included in the 2023-2025 WMP as a general observation about the sensitivity of certain electric assets to prevailing temperatures that exceed equipment design specifications. It does not constitute a thorough evaluation of the vulnerability (meaning, the exposure of an asset to a specific climate hazard as well as an asset's sensitivity to that climate hazard) of a given asset or of the grid as a whole.	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	5.3.4.2	Overview of the Service Territory	Climate Change Phenomena and Trends
34	CalPA	Set WMP-09	CalPA_Set WMP-09	3	CalPA_Set WMP-09_Q3	P. 598 of PG&E's WMP states: In 2022 we continued our assessment through the Electric Program Investment Charge 3.45, "Automated Fire Detection from Wildfire Alert Cameras," program. Through our assessment period we determined that AI detection on camera will improve our detection system and in 2023 we will select a vendor to install AI detection on our cameras.	PG&E ran a pilot 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 in which multiple potential vendors participated to prove out the ability of the AI technology to continuously monitor the feeds from the wildfire cameras installed in PG&E service territory and provide alerts to both PG&E and responding	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	1	N/A	8.3.4.2	Situational Awareness and Forecasting	Ignition Detection Systems
35	CalPA	Set WMP-09	CalPA_Set WMP-09	4	CalPA_Set WMP-09_Q4	P. 174 of PG&E's WMP states, "The results of the PSPS Consequence Model are then calibrated to PG&E's Enterprise Risk Model's MAVF Risk Score for PSPS." For each component in PG&E's MAVF, explain how the results of the PSPS Consequence Model are calibrated to the MAVF.	PG&E's PSPS MAVF Risk Score includes safety, reliability, and financial components. The combination of the components results in a total MAVF Risk Score for PSPS. For Safety, PG&E uses the combination of 50% PG&E PSPS data and 50% US industry widespread unplanned outage data. Based on blending of the two datasets, PG&E arrives at a Serious Injury or Fatality (SIF) / million Customer Minutes Interrupted (CMI). Details are shown in	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	3	N/A	6.2.2.3	Risk Methodology and Assessment	Risk and Risk Components Calculation
36	CalPA	Set WMP-09	CalPA_Set WMP-09	5	CalPA_Set WMP-09_Q5	P. 161 of PG&E's WMP discusses Group G, Above-Grade Hardware, in the context of PG&E's WTRM. Group G has two sub-groups. PG&E states, "Sub-Group 1 consists of components where the life cycle closely aligns with that of the structure. These include the hanger plate and bolts." a) Does the WTRM apply the same hazards and threats to all components within a grouping?	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. Sensitivity to similar threats and hazards; and 3. Similar Asset Management strategy.	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	6.2.2.1	Risk Methodology and Assessment	Risk and Risk Components Calculation
37	CalPA	Set WMP-09	CalPA_Set WMP-09	6	CalPA_Set WMP-09_Q6	P. 193 of PG&E's WMP states, "top-risk areas are defined as the areas corresponding to those 100 x 100 m pixels that intersect PG&E overhead electrical infrastructure locations and that are in the upper 20th percentile based on WDRM v3 risk scores." a) By "upper 20th percentile," does PG&E mean the 80th through 100th percentiles, as percentiles are commonly defined (in other words, the highest risk areas)?	a) Yes, by "upper 20th percentile" PG&E means the 80th through 100th percentiles; i.e., the highest quintile of risk scores. b) The "upper 20th percentile" refers to a subset of WDRM v3 risk scores. The "top risk" areas were identified using the following process: (1) PG&E service territory was spatially divided into a grid of square, 100 m x 100 m pixels; (2) for each pixel intersecting PG&E overhead electrical	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	6.4.1.2	Risk Methodology and Assessment	Top Risk Areas Within the HFRA
38	CalPA	Set WMP-09	CalPA_Set WMP-09	7	CalPA_Set WMP-09_Q7	P. 73 of PG&E's WMP states, "We created a species-specific stress index model for PG&E tree health and mortality." a) What is PG&E's species-specific stress index model for tree health and mortality? b) How does PG&E utilize its species-specific stress index model for tree health and mortality? c) Please describe the data inputs to this model.	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) PG&E has not yet received the information from its vendor needed to develop the stress index model but expects to receive it shortly. Once the information is received, PG&E will perform	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	4.4	Overview of WMP	Risk-Informed Framework
39	CalPA	Set WMP-09	CalPA_Set WMP-09	8	CalPA_Set WMP-09_Q8	P. 129 of PG&E's WMP states: When conducting VM activities, PG&E employees and contractors must adhere to PG&E's Best Management Practices (BMP) where practicable. BMPs are considered practicable where physically possible and not conflicting with other regulatory obligations or safety considerations (GO 95,Rule 35 and Public Resources Codes 4292 and	The BMPs referenced on Page 129 of the WMP in TD-7102P-01-JA01, Best Management Practices (BMPs) are Vegetation Management's (VM) controls to ensure compliance with environmental compliance requirements. a) PG&E makes every effort to comply with the BMPs. If the risk of vegetation in relation to our assets and potential non-compliance with GO 95,Rules 18 & 35, PRCs 4292 or 4293, or NERC	Holly Wehrman	4/4/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	1	N/A	5.4.5	Overview of the Service Territory	Environmental Compliance and Permitting
40	CalPA	Set WMP-09	CalPA_Set WMP-09_Q8REV	8REV	CalPA_Set WMP-09_Q8REV	P. 129 of PG&E's WMP states: When conducting VM activities, PG&E employees and contractors must adhere to PG&E's Best Management Practices (BMP) where practicable. BMPs are considered practicable where physically possible and not conflicting with other regulatory obligations or safety considerations (GO 95,Rule 35 and Public Resources Codes 4292 and	The BMPs referenced on Page 129 of the WMP in TD-7102P-01-JA01, Best Management Practices (BMPs) are Vegetation Management's (VM) controls to ensure compliance with environmental compliance requirements. a) PG&E makes every effort to comply with the BMPs. If the risk of vegetation in relation to our assets and potential non-compliance with GO 95,Rules 18 & 35, PRCs 4292 or 4293, or NERC	Holly Wehrman	4/4/2023	4/12/2023	4/13/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	1	N/A	5.4.5	Overview of the Service Territory	Environmental Compliance and Permitting
41	CalPA	Set WMP-09	CalPA_Set WMP-09	9	CalPA_Set WMP-09_Q9	P. 526 of PG&E's WMP states, "The primary target for secondary patrols is HFTD and HFRA but exceptions and additional areas are included to appropriately address vegetation associated risks." P. 267 states, "Beginning in 2023, PG&E will use the annual review of AOC, that we committed to doing in RN_PG&E-22-09, to identify areas subject to Second Patrols."	a) In the paragraph on page 526 outlined above, the term "secondary patrols" is used synonymously with the use of "Second Patrols" and both terms refer to Second Patrol. "In accord with regulatory requirements and/or PG&E VM Second Patrol Procedure (TD-7102P-23), the VM Second Patrol program performs scheduled patrols approximately six months offset from the	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	8.2.2.2.2	Vegetation Management and Inspections	Distribution Second Patrol
42	CalPA	Set WMP-09	CalPA_Set WMP-09	10	CalPA_Set WMP-09_Q10	P. 342 of PG&E's WMP states, "In July 2021, PG&E launched a multi-year program to underground 10,000 distribution miles statewide, with a focus in high wildfire risk areas." a) Since the July 2021 announcement of its 10,000 mile undergrounding program, has PG&E performed any studies to determine whether the planned scope of 10,000 circuit miles should be revised?	a) Yes. PG&E determined that undergrounding approximately 10,000 miles will reduce approximately 70 percent of risk in the HFTD. We initially used the output from our Wildfire Distribution Risk Model (WDRM) version 2 to first identify the 10,000 miles. We then subsequently validated that this was the correct number of miles after the July 2021 announcement using the output from our updated WDRM v3.	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	2	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
43	CalPA	Set WMP-09	CalPA_Set WMP-09	11	CalPA_Set WMP-09_Q11	P. 969 of PG&E's WMP states, "on average, it takes 1.25 UG install miles to replace 1 OH mile. However, at times, this multiplier can be 2-3 times greater." Does PG&E'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?	The 10,000 mile target refers to the number of miles of underground conductor and aligned with the assumption of removing approximately 8,100 overhead circuit miles.	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations
44	CalPA	Set WMP-09	CalPA_Set WMP-09	12	CalPA_Set WMP-09_Q12	a) What is PG&E's current forecast cost per circuit-mile for undergrounding projects completed in the second half of 2025? b) Please provide workpapers to support your answer to part (a).	a) PG&E did not provide a forecast cost per circuit miles for undergrounding projects completed specifically in the second half of 2025 in its WMP. However, PG&E did provide a target unit cost (cost per circuit mile) by year for undergrounding projects through our 2023 GRC Reply Brief (A. 21-06-021): IMAGE OF TABLE 5-A11: SYSTEM HARDENING UNDERGROUND – POLES (ORIGINAL AND	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
45	CalPA	Set WMP-09	CalPA_Set WMP-09	13	CalPA_Set WMP-09_Q13	a) What is PG&E's forecast RSE for undergrounding completed in the second half of 2025? b) Please provide workpapers to support your answers to part (a).	a) PG&E does not forecast an RSE for undergrounding projects planned to be completed specifically in the second half of 2025 in its WMP. However, in the 2023 GRC, PG&E provided an RSE of 5.4 in 2025 for underground system hardening (A. 21-06-021, Exhibit PG&E-4, Chapter 3, p. 3-6, Table 3-1). b) Please see attachment "WMP-Discovery2023_DR_CalAdvocates_009-Q013Atch01.xlsm" for	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	1	N/A	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening –Transmission Conductor and Distribution
46	CalPA	Set WMP-09	CalPA_Set WMP-09	14	CalPA_Set WMP-09_Q14	a) What is PG&E's current forecast cost per circuit-mile for covered conductor projects completed in the second half of 2025? b) Please provide workpapers to support your answer to part (a).	a) PG&E does not forecast cost per circuit-mile for covered conductor projects in its WMP. However, PG&E did provide a unit cost of $1.678 million per mile for overhead hardening in 2025 in its 2023 GRC (A. 21-06-021, Exhibit PG&E-4, Workpaper 4-28, line 18). b) Please see attachment "WMP-Discovery2023_DR_CalAdvocates_009-Q014Atch01.pdf" for	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	1	N/A	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening –Transmission Conductor and Distribution
47	CalPA	Set WMP-09	CalPA_Set WMP-09	15	CalPA_Set WMP-09_Q15	a) What is PG&E's forecast RSE for covered conductor system hardening completed in the second half of 2025? b) Please provide workpapers to support your answers to part (a). Question 16	a) PG&E does not forecast an RSE for covered conductor system hardening for the second half of 2025 in its WMP. However, in the 2023 GRC, PG&E provided an RSE of 5.8 in 2025 for overhead system hardening (A. 21-06-021, Exhibit PG&E-4, Chapter 3, p. 3-6, Table 3-1). b) Please see attachment "WMP-Discovery2023_DR_CalAdvocates_009-Q013Atch01.xlsm" for	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	0	N/A	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening –Transmission Conductor and Distribution
48	CalPA	Set WMP-09	CalPA_Set WMP-09	16	CalPA_Set WMP-09_Q16	In response to data request CalAdvocates-PGE-2023WMP-03, question 7c, PG&E states, "The primary approach for selecting miles used two risk prioritization methodologies: (1) Top 20 percent circuit segments based on the 2021 WDRM v2; and (2) the [Wildfire Feasibility Efficiency (WFE)]-ranked circuit segments based on the 2022 WDRM v3 and considering undergrounding feasibility."	Please see attachment "WMP-Discovery2023_DR_CalAdvocates_009-Q016Atch01_CONF.xlsx" for the requested information from data request CalAdvocates PGE-2023WMP-03, question 7c (projects identified for possible undergrounding in the 2023-2026 timeframe). Please see column M that shows the applicable risk model used for scoping the project (WDRM	Holly Wehrman	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_009.zip	1	N/A	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
49	CalPA	Set WMP-10	CalPA_Set WMP-10	1	CalPA_Set WMP-10_Q1	Table 8-3 on p. 332 of PG&E's WMP states that PG&E will make capable for Down Conductor Detection (DCD): • 500 devices in 2023, • 400 devices in 2024, and • 250 devices in 2025.	a) DCD is capable of seeing from the device to "end of line", therefore we are able to provide DCD protection on most eligible High Fire Risk Area line miles by the end of 2023, then supplementing that coverage in 2024 and 2025, including in the EPSS Buffer area. The number of devices decrease in 2024 and 2025 because the line miles covered in 2024 and 2025, including EPSS Buffer area are less than the line coverage in eligible HFRA for 2023.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.1.2	Grid Design, Operations, and Maintenance	Targets

49	CalPA	Set WMP-10	CalPA_Set WMP-10	2	CalPA_Set WMP-10_Q2	Table 8-5 on p. 336 of PG&E's WMP shows a forecast reduction in the number of EPSS events of one to two percent annually from 2022 to 2025. a) What factors does PG&E expect to contribute to the reduction in the number of EPSS events discussed above? b) Why is PG&E's forecast reduction in the number of EPSS events linear across the 2023-2025	a) For 2023, factors contributing to the reduction in the number of EPSS related outages are based on actions to install additional Line Reclosers (LR) and Fuse Savers on the highest impacted protective zones to reduce the reliability impact. These will be installed in locations that are within the HFRA or protect equipment within the HFRA. The planned installs will provide reliability benefits on fuse tap lines within the scope of the EPSS program. PG&E will also	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.13	Grid Design, Operations, and Maintenance	Performance Metrics Identified by the Electrical Corporation
50	CalPA	Set WMP-10	CalPA_Set WMP-10	3	CalPA_Set WMP-10_Q3	a) Does PG&E forecast a change in the average duration of EPSS events during the 2023-2025 period? b) If the answer to part (a) is yes, provide the expected average duration of EPSS events for 2023, 2024, and 2025. c) If the answer to part (a) is no, explain why not.	a) Not at this time. b) N/A c) We require more operating experience before being able to accurately forecast reduction in average duration for EPSS outages. We have lowered the target of four hours to 210 minutes in 2023.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.13	Grid Design, Operations, and Maintenance	Performance Metrics Identified by the Electrical Corporation
51	CalPA	Set WMP-10	CalPA_Set WMP-10	4	CalPA_Set WMP-10_Q4	P. 358 of PG&E's WMP states, with regard to DTS-FAST: A prototype field test installation was completed on a 115kv tower in Martinez and a wood pole in Santa Cruz in 2021. The valuable lessons learned have been updated to streamline designs, increase scalability, and reduce costs. In 2022, we filed a non-provisional patent application for DTS-FAST. For 2023, we have no field installation plans but will be working through the patent	a) DTS-FAST is an integrated system of sensors and technologies that are established and available on the market, working together to mitigate wildfire risk. Testing focused on validating sensor functionality in wildfire and utility user scenarios, encompassing functional testing, environmental testing, and long-term resilience testing. Learnings were immediately applied to optimize sensor configuration.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.2.6.2	Grid Design and System Hardening	Emerging Grid Hardening Technology Installations and Pilots
52	CalPA	Set WMP-10	CalPA_Set WMP-10	5	CalPA_Set WMP-10_Q5	P. 357 of PG&E's WMP states, "If deployed, DTS-FAST could have a significant impact on wildfire risk where deployed." a) Please quantify the phrase "a significant impact on wildfire risk" in the above quote. b) Please provide any workpapers or studies to support your answer to part (a).	a) Please quantify the phrase "a significant impact on wildfire risk" in the above quote. We do not have enough data to provide a precise quantification of the impact at this time. The deployed sensor system is designed to actively monitor the environment for potential wildfire risks. For instance, the sensors are capable of detecting vegetation that has fallen onto power lines or are leaning against it. When such an event is detected, the sensor will trigger an alarm at the location	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.2.6.1	Grid Design and System Hardening	Emerging Grid Hardening Technology Installations and Pilots
53	CalPA	Set WMP-10	CalPA_Set WMP-10	6	CalPA_Set WMP-10_Q6	P. 464 of PG&E's WMP states, "In 2022, we reduced the Customer Average Interruption Duration Index (CAIDI) and Customers Experiencing a Sustained Outage (CESO) for customers served by EPSS-capable lines when compared to data from the 2021 program pilot." a) Please provide the CAIDI value for all HFTD customers for each year from 2018-2022. b) Please provide the CESO value for all HFTD customers for each year from 2018-2022.	Please see "WMP-Discovery2023_DR_CalAdvocates_010-Q006Atch01.xlsx."	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	1	N/A	8.1.8.1.1	Grid Operations and Procedures	Equipment Settings to Reduce Wildfire Risk
54	CalPA	Set WMP-10	CalPA_Set WMP-10	7	CalPA_Set WMP-10_Q7	P. 464 of PG&E's WMP states, "By the end of 2022, we responded to 89 percent of outages on EPSS-enabled lines within 60 minutes, responding on average within 42 minutes." The statement above refers to results achieved "by the end of 2022." What time period is this data drawn from? In other words, the 42-minute figure is an average of response times in what period of time?	The 42-minute figure is an average of the response time to all outages on EPSS-protected circuits in 2022 since EPSS Outage Response time tracking began. The timeframe covered is May 23, 2022 – December 31, 2022.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Equipment Settings to Reduce Wildfire Risk
55	CalPA	Set WMP-10	CalPA_Set WMP-10	8	CalPA_Set WMP-10_Q8	P. 464 of PG&E's WMP states, "By the end of 2022, we responded to 89 percent of outages on EPSS-enabled lines within 60 minutes, responding on average within 42 minutes." For all outages on EPSS-enabled lines in all of 2022, provide the following: a) Average response time b) 25th percentile response time	2022 EPSS OUTAGE RESPONSE AVERAGE RESPONSE TIME 25TH PERCENTILE RESPONSE TIME MEDIAN (50TH PERCENTILE) RESPONSE TIME 75TH PERCENTILE RESPONSE TIME	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Equipment Settings to Reduce Wildfire Risk
56	CalPA	Set WMP-10	CalPA_Set WMP-10	9	CalPA_Set WMP-10_Q9	P. 464 of PG&E's WMP states, "By the end of 2022, we responded to 89 percent of outages on EPSS-enabled lines within 60 minutes, responding on average within 42 minutes." For the 11 percent of outages (noted in this quote) on EPSS-enabled lines that PG&E did not respond to within 60 minutes, provide the following: a) Average response time	2022 EPSS OUTAGE RESPONSE AVERAGE RESPONSE TIME FOR RESPONSES > 60 MINUTES LONGEST RESPONSE TIME 95 Minutes	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Equipment Settings to Reduce Wildfire Risk
57	CalPA	Set WMP-10	CalPA_Set WMP-10	10	CalPA_Set WMP-10_Q10	P. 441 of PG&E's WMP states, "We plan to implement a QA [quality assurance] program for systems inspections." a) Please discuss the progress PG&E has made so far in implementing a QA program for systems inspections. b) When does PG&E expect to implement a QA program for systems inspections?	a) The function that has been historically referred to as "quality verification" is in fact a component of the QA program for systems inspections and will be referred to as "QA" rather than "QV" moving forward. We have made significant progress on this work and the program has been implemented. b) The program has already been implemented.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.6.1	Quality Assurance and Quality Control	Quality Assurance
58	CalPA	Set WMP-10	CalPA_Set WMP-10	11	CalPA_Set WMP-10_Q11	P. 441 of PG&E's WMP states, "We plan to update existing QV [quality verification] procedures for systems inspections." a) Please discuss the progress PG&E has made so far in updating existing QV procedures for systems inspections. b) When does PG&E expect to complete its updates to existing QV procedures for systems	a) The quality team is currently undergoing a thorough review of the prior QV procedures as an initial step in the development of updated procedures. b) Expected completion of this work is the end of the third quarter of 2023. c) The planned updates improve upon PG&E's existing QV procedures by accurately reflecting the QV role in the holistic systems inspection throughput.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.6.1	Quality Assurance and Quality Control	Quality Assurance
59	CalPA	Set WMP-10	CalPA_Set WMP-10	12	CalPA_Set WMP-10_Q12	P. 450 of PG&E's WMP states, "Along with reducing wildfire risk related to backlog ignition risk-tags in HFTD/HFRA, new (EC notifications identified after January 1st, 2023) HFTD/HFRA ignition risk tags will be completed in compliance with GO 95 rule 18 timelines, barring external factors." a) What external factors does PG&E anticipate may prevent it from completing HFTD/HFRA	a) Please refer to page 831 of our 2023 WMP which defines external factors as follows: "External Factors represent reasonable circumstances which may impact execution against targets, objectives, other work, or performance metrics including, but not limited to, physical conditions, landholder refusals, environmental delays, customer refusals or non-contacts, permitting delays/restrictions, weather conditions, removed or destroyed assets, active wildfire	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.7.2	Open Work Orders	Open Work Orders – Distribution Tags
60	CalPA	Set WMP-10	CalPA_Set WMP-10	13	CalPA_Set WMP-10_Q13	Table PG&E-8.1.7-1 on p. 451 of PG&E's WMP states, "Field Safety Reassessment (FSR) performed annually on time dependent tags to confirm Priority E Notification has not escalated to Priority A or B." a) Under PG&E's current procedures and policies, can a FSR de-escalate the priority of a notification? Please explain your answer.	a) The FSR program is focused on identifying conditions that have escalated to Priority A and B. Inspectors can also recommend that a notification be canceled if they believe it was created in error, is no longer required according to PG&E's guidelines, or if they find all work identified on the EC is already completed in the field. In certain instances, the FSR can lead to a downgrade in tag priorities. For example, if the tag gatekeeper disagrees with an inspector-recommended	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.7.2	Open Work Orders	Open Work Orders – Distribution Tags
61	CalPA	Set WMP-10	CalPA_Set WMP-10	14	CalPA_Set WMP-10_Q14	Table PG&E-8.1.7-3 on p. 456 of PG&E's WMP has empty cells in the HFRA row. a) Please explain why the HFRA row is empty in the above table. b) Please provide an updated version of PG&E-8.1.7-3 with the HFRA row filled in.	The HFRA line in Table PG&E-8.1.7-3 was blank because PG&E was unable to segregate the HFRA tags. Table 1 below shows the number of open distribution work orders categorized by HFTD tier from Q1 2020 through Q4 2022 and is tied to the QDR data provided to Energy Safety on March 1, 2023.	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.7.2	Open Work Orders	Open Work Orders – Distribution Tags
62	CalPA	Set WMP-10	CalPA_Set WMP-10	15	CalPA_Set WMP-10_Q15	In response to data request CalAdvocates-PGE-2023WMP-05, question 3, PG&E states, "There is an inherent QC process that is part of the drone inspection, but there is no outside group that is looking at QC." a) Please describe the inherent QC process for drone inspections. What are the main features of this inherent QC process?	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. b) Spot checks are performed for the commonly missed items that potentially caused a fire or ignition. c) The five most common problems identified in the QC process are: C-hooks, insulators, cotter	Holly Wehrman	4/4/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_010.zip	0	N/A	8.1.3	Asset Inspections	N/A
63	TURN	001	TURN_001	1	TURN_001_Q1	1. Regarding ACI PG&E-22-34, which found that "PG&E's current process of prioritizing wildfire mitigations assigns a high priority to undergrounding and does not demonstrate adequate weight to risk model outputs or RSE estimates" and which detailed the showing that PG&E must make in this WMP to show the required progress: a. Does PG&E's 2023-2025 WMP or supporting documentation provide a comparison of the RSEs (either at a tranche level or more aggregated level) for undergrounding compared to the RSEs of alternative mitigation techniques, such as covered conductor? i. If so, please provide the relevant citations, identifying the specific content that provides this information by page number and specific paragraphs, tables or figures (i.e., not just a multi-range page citation). ii. If so, please describe what PG&E believes those RSE comparisons demonstrate. b. Referring to the third bullet under "Required Progress" on page 968 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 undergrounding with alternative mitigation techniques, such as covered conductor	a) No, PG&E's 2023-2025 WMP does not provide a comparison of the RSEs for undergrounding compared to the RSEs of alternative mitigations. However, this information, RSEs at the tranche and aggregated level for wildfire mitigations including undergrounding, is provided in PG&E's 2023 General Rate Case – in response to Energy Division data request ED_001. 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 hardening 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 v3. PG&E uses the Simplified Wildfire RSE (SWRSE) or WFE in evaluating undergrounding projects. The SWRSE includes the components of the RSE,including wildfire risk and cost. In executing the system hardening program, PG&E first uses a scoping criterion that identifies the highest risk areas, and then selects the appropriate risk mitigation approach for that circuit which	Tom Long	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_001.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations
64	TURN	002	TURN_002	1	TURN_002_Q1	Please provide the attachment to the response to CalAdvocates-PG&E-2023WMP-06-007, which PG&E has labeled as confidential	Please see attachment "WMP-Discovery2023_DR_TURN_002-Q001Atch01CONF.xlsx" for the requested information.	Tom Long	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_002.zip	1	Yes	8.2.3	Vegetation Management and Inspections	Vegetation and Fuels Management
65	TURN	002	TURN_002	2	TURN_002_Q2	Please provide the attachment to the response to CalAdvocates-PG&E-2023WMP-06-008, which PG&E has labeled as confidential.	Please see attachment "WMP-Discovery2023_DR_TURN_002-Q002Atch01CONF.xlsx" for the requested information.	Tom Long	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_002.zip	1	Yes	8.2.3	Vegetation Management and Inspections	Vegetation and Fuels Management
66	TURN	002	TURN_002	3	TURN_002_Q3	Please provide the attachment to the response to CalAdvocates-PG&E-2023WMP-06-009, which PG&E has labeled as confidential.	The attachment to CalAdvocates-PG&E-2023WMP-06-009 was identical to the attachment provided for CalAdvocates-PG&E-2023WMP-06-008, so please refer to the attachment sent with Answer 002 of this data request response.	Tom Long	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_002.zip	0	N/A	2022 WMP Section 7.3.5.2	Vegetation Management and Inspections	Enhanced Vegetation Management
67	TURN	002	TURN_002	4	TURN_002_Q4	Please provide the 2023-2026 Undergrounding Workplan referenced on page 911 of PG&E's WMP and in footnote 209, which indicates that PG&E has labeled the Workplan confidential.	Please see "WMP-Discovery2023_DR_TURN_002-Q004Atch01_CONF.xlsx" for the requested information.	Tom Long	4/4/2023	4/7/2023	4/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_002.zip	1	Yes	Appendix D	Areas for Continued Improvement	ACI PG&E-22-16 – Progress and Updates on Undergrounding and Risk Prioritization
68	CPUC - SPD (Safety Policy Division)	002	CPUC - SPD (Safety Policy Division)_002	1	CPUC - SPD (Safety Policy Division)_002_Q1	Provide Attachment 2023-03-27_PGE_2023_WMP _R0_Appendix D ACI PG&E-22-16_Atch01_CONF (PG&E's 2023-2026 Undergrounding Workplan).	The CONFIDENTIAL attachment is being provided pursuant to the confidentiality declaration "DRU11407.003_Confidentiality Declaration.pdf". As requested, please see attachment "2023-03-27_PGE_2023_WMP_R0_Appendix D ACI PG&E-22-16_Atch01_CONF.xlsx" attached.	Kevin Miller	4/4/2023	4/5/2023	4/4/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_002.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-16 – Progress and Updates on Undergrounding and Risk Prioritization
69	OEIS	001	OEIS_001	1	OEIS_001_Q1	Regarding PG&E's Tree Assessment Tool (TAT) Considering PG&E has discontinued its Enhanced Vegetation Management (EVM) program: a. How is PG&E using and planning to use its TAT? b. What inspection programs, if any, listed in Section 8.2.2 will use the TAT? c. If PG&E is not using its TAT, why has it discontinued its use?	a) 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. b) No inspection programs listed in Section 8.2.2 of the 2023-2025 WMP plan to utilize the TAT at this time. Please see the response to part (a) of this question.	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.2.2	Vegetation Management and Inspections	Vegetation Management Inspections
70	OEIS	001	OEIS_001	2	OEIS_001_Q2	Regarding PG&E's Targeted Tree Species (TTS) Study and its 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 579 of its 2023-2025 WMP, PG&E states "We have evaluated the recommendations in	a) Nine recommendations were provided to PG&E in the final 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 nine recommendations. Recommendation 1: Implement a rule set, harmonized with Q&I procedures, for TAT to record at	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.2.3.6	Vegetation Management and Inspections	High-Risk Species
71	OEIS	001	OEIS_001	3	OEIS_001_Q3	Regarding PG&E's Focused Tree Inspections pilot a. Describe the current state of development for the pilot area, PG&E's Areas of Concern (AOC), and "polygons where focused vegetation inspection can be evaluated to determine appropriate counties to prioritize pilots(s)" (page 529) and the expected timeline for operationalization.	a) Four regional AOCs totaling 300 miles have been identified for the FTI Pilot, one in each of the following counties: Butte, Calaveras, El Dorado, and Napa. Pilot operationalization will begin in Q2 2023. b) AOCs were identified through a cross-functional effort utilizing county-based regional reviews to create polygons. Initial polygon development utilized Public Safety Specialist circuit-based	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	3	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
71	OEIS	001	OEIS_001	3 SUPP	OEIS_001_Q3 SUPP	Regarding PG&E's Focused Tree Inspections pilot a. Describe the current state of development for the pilot area, PG&E's Areas of Concern (AOC), and "polygons where focused vegetation inspection can be evaluated to determine appropriate counties to prioritize pilots(s)" (page 529) and the expected timeline for operationalization.	h) 2023 development of Areas of Concern (AOC) used WDRM v3 to prioritize CPZs to inform the pilot areas selected. In the four AOC selected for pilots there are 31 CPZs total. 22 of these CPZs match where WDRM v2 was 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 Ranking. These omissions are due to circuit configuration and/or operating	Colin Lang	4/5/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
71	OEIS	001	OEIS_001	3 SUPP_2	OEIS_001_Q3 SUPP_2	Regarding PG&E's Focused Tree Inspections pilot a. Describe the current state of development for the pilot area, PG&E's Areas of Concern (AOC), and "polygons where focused vegetation inspection can be evaluated to determine appropriate counties to prioritize pilots(s)" (page 529) and the expected timeline for operationalization.	j) GIS layer for each polygon with the additional attributes have been provided. Please see "WMP-Discovery2023_DR_OEIS_001-Q003Supp02Atch01.zip" and "WMP-Discovery2023_DR_OEIS_001-Q003Supp02Atch02.xlsx." Specifically for Overall Utility Risk, Ignition Risk, and PSPS Risk, these are typically presented in terms of circuit segments or circuit protection zones. The AOC polygons do not always align with	Colin Lang	4/5/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	2	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
72	OEIS	001	OEIS_001	4	OEIS_001_Q4	Regarding PG&E's Tree Removal Inventory On page, 528, PG&E states that is will "remove, or re-inspect trees identified in the EVM program." 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? b. What standards, processes, procedures, and tools are vegetation management personnel	a) 1) Trees in the inventory with a TAT result of 'Abate' will abated based on the existing risk assessment. 2) All trees in the inventory with either no TAT result or a TAT result other than 'ABATE' are to be re-assessed by a Tree Risk Assessment Qualification (TRAQ) inspector to determine if	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
73	OEIS	001	OEIS_001	5	OEIS_001_Q5	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. a. Considering the EVM program has been discontinued, does the wood management program: i. Address large wood generated from the EVM program that has not already addressed?	a) i. Yes. We will uphold commitments to manage wood generated by Enhanced Vegetation Management (EVM) tree work for customers who requested this service. ii. We will continue to fulfill wood management commitments that have been made to customers. b) PG&E offers wood management for our wildfire response and EVM programs. For all	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	1	N/A	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management
74	OEIS	001	OEIS_001	6	OEIS_001_Q6	Regarding Enhanced Clearances On page 537, PG&E says it "complies with Appendix E of GO 95," then goes on to describe the recommended minimum clearances set forth in Appendix E of GO 95. a. In the HFTD, does PG&E obtain the recommended clearances "where practicable"? b. If (a) does not describe how PG&E implements the recommended, "enhanced" clearances	a. The minimum clearance at time of work on Enhanced Vegetation Management is 12 feet as recommended in Appendix E of GO 95. Routine maintenance of previously cleared EVM spans is also 12 feet. Routine maintenance of all other spans is prescribed 2-3 years of clearance. b. 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.	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.2.3.3	Vegetation Management and Inspections	Clearance

75	OEIS	001	OEIS_001	7	OEIS_001_Q7	Regarding Appendix B Items That Are Currently Optional Or "By Request" Only Provide the following, which are outlined in the 2023-2025 Wildfire Mitigation Plan Technical Guidelines, Appendix B. If the data is tabular (formulas, tables, graphs, charts) provide it in MS Excel. If the data is text-heavy, provide the information in MS Word. a. Detailed Model Documentation for each model and sub-model discussed in PG&E's response	The requested information is provided in the following four documents: • "WMP-Discovery2023_DR_OEIS_001-Q007Atch01.pdf" • "WMP-Discovery2023_DR_OEIS_001-Q007Atch02CONF.pdf" • "WMP-Discovery2023_DR_OEIS_001-Q007Atch03CONF.pdf" • "WMP-Discovery2023_DR_OEIS_001-Q007Atch04CONF.pdf"	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	4	N/A	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
76	OEIS	001	OEIS_001	8	OEIS_001_Q8	Regarding Comprehensive System Diagram for All Risk Models Used Provide comprehensive system diagrams in MS Visio or PPT for all risk models. 1. A comprehensive diagram for operational models and 2. A comprehensive diagram for planning models. Section 6.1.2, Summary of Risk Models, asks for a summary of risk models in table form with	PG&E has provided two system diagrams within WMP-Discovery2023_DR_OEIS_001-Q008Atch01.pdf in response to this data request – one for operational models (slide 01) and one for planning models (slide 02). Each diagram depicts the interaction among different models and each's inputs and outputs. The diagrams also show the decision points, process flows, feedback loops where adjustments to the models are required	Colin Lang	4/5/2023	4/24/2023	4/24/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	1	N/A	6.1.2	Risk Methodology and Assessment	Summary of Risk Models
77	OEIS	001	OEIS_001	9	OEIS_001_Q9	Regarding Portfolio Level Risk Analysis and Risk Spend Efficiency a. 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 organization for the portfolio (e.g., asset, geographical or business unit)	a) 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 tranches, in this case, are broken down by quintiles of likelihood of risk event (LoRE) and consequence of risk event (CoRE). Please see "WMP-Discovery2023_DR_OEIS_001-Q009Atch01.xlsm", which is PG&E's 2023-2026 wildfire bowtie	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	2	N/A	7.1.4.1	Wildfire Mitigation Strategy Development	Identifying and Evaluating Mitigation
78	OEIS	001	OEIS_001	10	OEIS_001_Q10	Regarding Cost-Benefit within and Overall Decision-Making Framework a. If projects are justified based on a multi-attribute value functions/cost basis, what threshold or hurdle is used? b. How is the chance that a project exceeds the threshold computed? c. If projects are justified based on a multi-attribute value functions/cost basis, what threshold or	a) We do not have a specific threshold to justify projects. b) While we don't calculate a specific threshold for executing mitigations, PG&E prioritizes higher MAVF/cost locations for executing projects. We also develop risk buydown curves and implement projects at the higher end of the curve. The higher end of the curve represents the higher MAVF/cost values.	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	7.1.4.2	Wildfire Mitigation Strategy Development	Mitigation Initiative Prioritization
79	OEIS	001	OEIS_001	11	OEIS_001_Q11	Regarding PG&E's Response to ACI PG&E-22-10 PG&E describes an external study funded by California Energy Commission (CEC) grant EPC 18-026 to classify and identify areas with similar climate locations that already have weather stations, and areas with climate conditions that are not well measured by current stations. a. Provide the external party study which PG&E described and used to assess the statewide	The weather optimization report was developed by a third party, Pyregence. Pyregence provided us with a draft copy of the report and instructed us not to distribute the document. Therefore, we would greatly appreciate Energy Safety's understanding in honoring this instruction. To this end, we recommend that Energy Safety contact the Pyregence team directly through the contact information provided below to obtain the draft report. This was the same process we used to	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--10 Justification of Weather Station Network Density
80	OEIS	001	OEIS_001	12	OEIS_001_Q12	Regarding PG&E's Response to ACI PG&E-22-09 a. PG&E states that "363 [circuits] dropped to the lower 80 percent" (p. 891). For each of these circuit segments, provide the following information via Excel document: i. Name/ID of CPZ ii. V2 mileage of circuit segment	Please see attachment WMP-Discovery2023_DR_OEIS_001-Q012Atch01.xlsx, tab "12.a Dropped v2 CPZs." b. 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-Discovery2023_DR_OEIS_001-Q012Atch01.xlsx, tab "12.b Probability of Ignition" for specific	Colin Lang	4/5/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--09 Evaluation of Model Reprioritization and Fire Rebuild in High-Risk Areas
81	OEIS	001	OEIS_001	13	OEIS_001_Q13	Regarding PG&E's Response to ACI PG&E-22-20 PG&E states that "Adding drones to the detailed GO 165 inspection slowed the inspection to roughly 20 to 25 poles 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 920). a. Provide the daily inspection rates for stand-alone ground inspections, drone-only image	Please see below for the requested information. Drone-only Heli-only Inspector + Drone Stand-alone GO 165 inspection Aerial Image capture (Structures/day/crew) 48 280.5* 20-25 N/A Inspection rate in field (structures/day/inspector)	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--20 Asset Inspection Drone Program Pilot
82	OEIS	001	OEIS_001	14	OEIS_001_Q14	Regarding PG&E's Asset Management Upgrades On page 433, 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 standards." a. Do the upgrades to PG&E's asset inventory database include the location of each piece of	a) Our asset inventory database (Asset Registry) does include attribute fields for location (lat/long and/or identification of support structure ID for attached equipment), manufacturer, model ID (as appropriate), and installation date. These are considered critical data elements (CDEs) and data governance and data quality metrics are being established to track the associated data quality. i. We collect required asset attributes as part of the As-Built process, according to process and	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
83	OEIS	001	OEIS_001	15	OEIS_001_Q15	Regarding PG&E's Enhanced Powerline Safety Settings (EPSS) Program a. On page 464, PG&E states "…also referred to as high impedance faults, we plan to engineer, program, and install the Downed Conductor Detection (DCD) algorithm on recloser controllers. We will also evaluate high impedance fault detection algorithms for circuit breakers in 2023 and beyond." Then on page 374, PG&E states that the DCD Utility Initiative will likely continue from	a) i) DCD algorithm installation was prioritized based on the addressable risk reduction from each DCD device using PG&E's WDRM v3 risk model and maximizing High Fire Risk Area (HFRA) electric distribution line mile coverage. Addressable risk reflects the devices and circuits that are capable of accepting the DCD algorithm. By the end of 2025, DCD is planned to be installed on approximately 21,000 HFRA miles. Circuit breakers and 4-wire circuits are not currently capable	Colin Lang	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_001.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
84	CalPA	Set WMP-11	CalPA_Set WMP-11	1	CalPA_Set WMP-11_Q1	PG&E's Test Year 2023 GRC rebuttal testimony (Ex. PG&E-17 on July 11, 2022) states the following: Q 123 Does PG&E have experience with REFCL? A 123 Yes. PG&E initiated a REFCL pilot project in 2018 at the Calistoga substation. After initial positive tests, the Calistoga REFCL pilot demonstration was stalled due to the failure of the	PG&E objects to parts (a) through (e) of this request as beyond the scope of this proceeding. This question relates to PG&E's 2023 General Rate Case (GRC) proceeding and has no enunciated connection to PG&E's WMP proceeding. Furthermore, Cal Advocates concurrently served an identical data request on PG&E in the GRC proceeding and PG&E will provide a response to this request in that proceeding as it is the more appropriate venue.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
85	CalPA	Set WMP-11	CalPA_Set WMP-11	2	CalPA_Set WMP-11_Q2	Referring to PG&E's Electric Preliminary Statement Part FY (Tariff Sheet No. 52259-E), the Electric Program Investment Charge Balancing Account (EPICBA) has three subaccounts: The EPIC Program Administered by PG&E Subaccount tracks the actual program expenses to the authorized EPIC program budgets pursuant to D.12-05-037, D.20-08-042, and D.21-11-028 through December 31, 2030 or as authorized by the Commission.	PG&E objects to this request as beyond the scope of this proceeding. This question relates to PG&E's 2023 General Rate Case (GRC) proceeding and has no enunciated connection to PG&E's WMP proceeding. Furthermore, Cal Advocates concurrently served an identical data request on PG&E in the GRC proceeding and PG&E will provide a response to this request in that proceeding as it is the more appropriate venue.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
86	CalPA	Set WMP-11	CalPA_Set WMP-11	3	CalPA_Set WMP-11_Q3	PG&E's 2022 WMP, Section 7.1.E, Attachment 1 (Attch_Q3.pdf) states the following regarding the project status of EPIC 3.15—Proactive Wires Down Mitigation Demonstration Project (Rapid Earth Fault Current Limiter) as of February 25, 2022: Evaluation of additional substations for suitability of additional REFCL installations has begun but is pending results and learnings of the initial EPIC project before design or field work starts on additional sites. After an initial screening	PG&E objects to the portions of this request relating to Major Work Category (MWC) 49R as beyond the scope of this proceeding. Notwithstanding and without waiving this objection, PG&E responds as follows: a. PG&E has not performed an evaluation of additional substations for suitability of additional REFCL installations since the previous list of 25 distribution substations. PG&E is still evaluating	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
87	CalPA	Set WMP-11	CalPA_Set WMP-11	4	CalPA_Set WMP-11_Q4	Referring to Exhibit PG&E-04, February 25, 2022, version, PG&E states the following regarding REFCL: Based on our initial testing and the successful implementation in Australia, PG&E has developed a short-term strategy to install REFCLs in HFTD areas. PG&E forecasts deploying REFCLs at an additional two substations each year, but these plans could change pending pilot results and integration with other enhanced automation and wildfire mitigation efforts described in	a) Yes, our plans have changed over the past year from what was expressed in the quote cited above from our WMP. b) PG&E is not planning any REFCL deployments until after complete evaluation of the demonstration project and successful integration of the technology into normal operations. PG&E is evaluating its portfolio of wildfire risk mitigations	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
88	CalPA	Set WMP-11	CalPA_Set WMP-11	5	CalPA_Set WMP-11_Q5	Referring to Exhibit PG&E-17, p. 4.3-6, Table 4.3-3, line 6, served on July 11, 2022: Line 6 of the above table indicates that PG&E forecasts the capital expenditures to be \$17.331 million in 2023, \$17.800 million in 2024, \$18.280 million in 2025, and \$18.774 million in 2026. Given the current status of PG&E's evaluation of additional substations for suitability and PG&E's plans for future deployment of REFCLs, as of March 27, 2023, please indicate any adjustment to	Please see the table below for the requested information. Year 2023 2024 2025	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
89	CalPA	Set WMP-11	CalPA_Set WMP-11	6	CalPA_Set WMP-11_Q6	In December 2021, PG&E presented at the EPIC Symposium. See Attch_Q6_EPIC_Presentation.pdf. The presentation slides state that: Rapid Earth Fault Current Limiter (REFCL) technology is an extension of resonant grounding at a distribution substation to neutralize ground fault current and pre[v]ent a spark. REFCL has been successfully deployed in Australia to reduce risk of fire from ground faults, but their substation	PG&E objects to this request as beyond the scope of this proceeding. Notwithstanding and without waiving this objection, PG&E responds as follows: a) Yes, this statement remains an accurate high-level description. b) Not applicable, as described in response to subpart (a).	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
90	CalPA	Set WMP-11	CalPA_Set WMP-11	7	CalPA_Set WMP-11_Q7	PG&E presents during the 2021 EPIC Symposium (Attch_Q6_EPIC_Presentation.pdf) that "REFCL could be applied to approx. 80% of PG&E HFTD distribution circuit miles (3-wire circuits)." However, PG&E's 2023 WMP, at page 275, states that:7 While PG&E is looking at opportunities for REFCL deployments in our distribution substations to	This distinction is based on the fact that REFCL is not a plug-and-play technology and requires supporting construction and equipment changes in the substation and on the distribution circuits to function. This is different from DCD and Partial Voltage Detection, which are software-based features on existing hardware and require significantly less cost to implement.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
91	CalPA	Set WMP-11	CalPA_Set WMP-11	8	CalPA_Set WMP-11_Q8	PG&E's 2023 WMP, at page 275, states that: "While PG&E is looking at opportunities for REFCL deployments in our distribution substations to mitigate wildfire risk and evaluating combinations of REFCL with EPSS and other mitigations, implementing it would require significant and costly changes to the grid." a) Please state the earliest date when PG&E reached the conclusion that "implementing [REFCL]	a) Implementing REFCL requires significant and costly changes to the grid relative to DCD and Partial Voltage detection. PG&E first understood the deployment cost of REFCL in early 2021. b) PG&E needed to complete the field construction of the demonstration project to determine the cost to deploy REFCL at a substation. c) Please refer to PG&E's Test Year 2023 GRC, Application 21-06-021, Exhibit PG&E-04 and	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
92	CalPA	Set WMP-11	CalPA_Set WMP-11	9	CalPA_Set WMP-11_Q9	At which substations, other than the Calistoga substation, has PG&E tested REFCL?	We have not tested REFCL at any substations other than the Calistoga substation.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
93	CalPA	Set WMP-11	CalPA_Set WMP-11	10	CalPA_Set WMP-11_Q10	Has PG&E done any benchmarking study on REFCL with Southern California Edison (SCE)?	Yes, PG&E REFCL project engineers regularly engage with Southern California Edison to benchmark our findings and share results and learnings. Of note, SCE has fewer circuit miles of existing underground cable at their REFCL demonstration site.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
94	CalPA	Set WMP-11	CalPA_Set WMP-11	11	CalPA_Set WMP-11_Q11	Has PG&E collaborated or exchanged with SCE on REFCL? If so, please detail the relevant activities.	Yes, PG&E regularly collaborates with SCE on REFCL and sharing data and information. This includes a monthly utility group call/meeting and sharing technical reports.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
95	CalPA	Set WMP-11	CalPA_Set WMP-11	12	CalPA_Set WMP-11_Q12	PG&E's 2023 WMP, at page 275, states that:8 Instead of making costly changes to the grid, we are moving forward with more cost-effective solutions such as DCD [Downed Conductor Detection] and Partial Voltage Detection. Regarding Downed Conductor Detection (DCD), a) What "changes to the grid" are required for PG&E to implement this technology? b) Is DCD viable on 3-wire systems, 4-wire systems, or both?	a) Depending on the existing recloser controller, DCD may not require a physical "change to the grid" or it may require the retrofitting of an existing line recloser controller. b) DCD is most compatible with 3-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 DCD on 4-wire systems.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities
96	CalPA	Set WMP-11	CalPA_Set WMP-11	13	CalPA_Set WMP-11_Q13	PG&E's 2023 WMP, at page 275, states that:9 "Instead of making costly changes to the grid, we are moving forward with more cost-effective solutions such as DCD and Partial Voltage Detection." Regarding Partial Voltage Detection (PVD), a) What "changes to the grid" are required for PG&E to implement this technology? b) Is PVD viable on 3-wire systems, 4-wire systems, or both?	a) Partial Voltage Detection (PVD) does not require a "change to the grid," the statement quoted above refers to how this makes PVD a cost-effective solution. b) PVD is viable on both 3-wire and 4-wire systems. c) No, as there is no cost to "deploy" PVD. d) Not applicable, please see the response to subpart (c) above.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities
97	CalPA	Set WMP-11	CalPA_Set WMP-11	14	CalPA_Set WMP-11_Q14	Based on PG&E's evaluation of REFCLs: a) Please describe the significant changes to the grid required to implement REFCL technology, b) State PG&E's cost estimates for such changes, c) Describe the equipment installations required for such changes, and d) Describe the likely operational impacts resulting from the implementation of REFCLs on	a) The significant changes to the grid required to implement REFCL are identified below: • Replacing voltage regulators in closed delta; • Installing new, matched sets of feeder breaker current transformers (CTs); • Replacing bus potential transformers (PTs); • Replacing substation service transformers with line-line connections;	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
98	CalPA	Set WMP-11	CalPA_Set WMP-11	15	CalPA_Set WMP-11_Q15	Please state the dates when PG&E finished evaluating the following: a) The significant changes to the grid required to implement REFCL technology, b) The cost estimates for such changes, c) The equipment installations required due to such changes, and	a) – d) We finished the evaluation of each item identified above in early 2021.	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
99	CalPA	Set WMP-11	CalPA_Set WMP-11	16	CalPA_Set WMP-11_Q16	Please provide all available documentation, studies, and analyses evidencing PG&E's conclusions on each of the following aspects of REFLC deployment: a) The significant changes to the grid required to implement REFCL technology, b) The cost estimates for such changes, c) The equipment installations required due to such changes, and	a) Please see: Rilery, Roger and Jon Bernardo. "JA8648-0-0 REFCL Functional Performance Report." October 14, 2020. This document can be accessed at the following link: https://www.esv.vic.gov.au/sites/default/files/2022-12/REFCL-Functional-Performance-Review.pdf. Please see page 29 of this document for the requested information. b) Please refer to PG&E's Test Year 2023 GRC, Application 21-06-021, Exhibit PG&E-04 and	Pui-Wa Li	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_011.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
100	TURN	003	TURN_003	1	TURN_003_Q1	Please provide data in PG&E's possession that indicates the following: 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;	Please see the attachment "WMP-Discovery2023_DR_TURN_003-Q001Atch01.xlsx" for the requested information. Please note that PG&E does not capture covered/non covered conductor status in our current outage reporting, so SAIDI/MAIFI data for covered conductor equipment cannot be provided at this time.	Tom Long	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_003.zip	1	N/A	N/A	N/A	N/A
101	TURN	003	TURN_003	2	TURN_003_Q2	Please provide all reports or studies in PG&E's possession prepared from January 1, 2018 to the present that discuss the reliability of underground distribution facilities, overhead distribution facilities with covered conductor, or overhead distribution facilities without covered conductor, including but not limited to a discussion of SAIDI and MAIFI data.	PG&E publishes an annual reliability report which provides a detailed report on the system-wide reliability performance. Please see the following attachments for the requested information: • "WMP-Discovery2023_DR_TURN_003-Q002Atch01.pdf;" • "WMP-Discovery2023_DR_TURN_003-Q002Atch02.pdf;" • "WMP-Discovery2023_DR_TURN_003-Q002Atch03.pdf;"	Tom Long	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_003.zip	5	N/A	N/A	N/A	N/A
102	TURN	003	TURN_003	3	TURN_003_Q3	Regarding Table 7-3-2, p. 296, the bottom row re PSPS: 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 15,000 reduced impacts for 2023, and so on. b. Please provide the supporting data for the estimates of reduced PSPS impacts in 2023	a) We can confirm that the targets for reduced customer impacts are cumulative for Initiative PS-07 in Table 7-3-2. Please see Table PG&E-22-35-1 (2023 WMP p. 973) for the breakout of incremental customers for each respective year. b) Please see attachment WMP-Discovery2023_DR_TURN_003-Q003Atch01 for supporting data for the estimates of reduced PSPS impacts in 2023-2025 for the five-year period, 2018-	Tom Long	4/5/2023	4/10/2023	4/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_003.zip	1	N/A	9.1.5	Public Safety Power Shutoff	Performance Metrics Identified by the Electrical Corporation
103	CalPA	Set WMP-12	CalPA_Set WMP-12	1	CalPA_Set WMP-12_Q1	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 PSPS of Circuit" is blank for the following distribution circuit Entry Numbers: 7, 8, 11, 15, 17, 18, 28, 29, 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:	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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining blanks.	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
103	CalPA	Set WMP-12	CalPA_Set WMP-12	1 SUPP	CalPA_Set WMP-12_Q1 SUPP	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 PSPS of Circuit" is blank for the following distribution circuit Entry Numbers: 7, 8, 11, 15, 17, 18, 28, 29, 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:	We have 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 latest circuits that are mitigated by PSPS protocols. Please see attachment "WMPDiscovery2023_DR_CalAdvocates_012-Q001Supp01Atch01.xlsx" for the updated List of Frequently De-energized Circuits. a) After updating our table, eight distribution circuits have no PSPS Mitigation Measures taken or	Holly Wehrman	4/6/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	1	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits

104	CalPA	Set WMP-12	CalPA_Set WMP-12	2	CalPA_Set WMP-12_Q2	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 PSPS of Circuit" is blank for the following transmission circuit Entry Numbers: 200, 227 a) 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 PSPS of Circuit" are blank. b) For each of	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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining blanks.	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
104	CalPA	Set WMP-12	CalPA_Set WMP-12	2 SUPP	CalPA_Set WMP-12_Q2 SUPP	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 PSPS of Circuit" is blank for the following transmission circuit Entry Numbers: 200, 227 a) 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 PSPS of Circuit" are blank. b) For each of	One 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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining blanks.	Holly Wehrman	4/6/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
105	CalPA	Set WMP-12	CalPA_Set WMP-12	3	CalPA_Set WMP-12_Q3	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, 44, 45, 69, 83, 84, 98, 99, 117, 119, 124, 127, 128, 129, 130, 131, 144, 152, 157, 158, 168, 169, 172, 176, 177, 181, 184 a) Please explain how PG&E deployed Temporary Generation to benefit the number of customers	a) We deployed two Temporary Generation initiatives (Distribution Microgrids and Backup Generation) to address different types of PSPS impacts to benefit the number customers stated. See Section 9.2.4 on p. 781 on details for additional details. The number of customers that benefited from Temporary Generation for each of the circuits	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
106	CalPA	Set WMP-12	CalPA_Set WMP-12	4	CalPA_Set WMP-12_Q4	Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP, distribution circuit Entry Numbers: 3, 4, 6, 13, 14, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 35, 49, 50, 51, 52, 53, 60, 61, 64, 65, 66, 67, 68, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 91, 94, 96, 99, 100, 101, 102, 104, 106, 107, 108, 109, 114, 115, 116, 123, 124, 127, 128, 129, 130, 132, 137, 139, 140, 142, 145, 147, 149, 150, 154, 158, 159, 164, 165, 168, 170, 171, 173, 180	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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining blanks.	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
106	CalPA	Set WMP-12	CalPA_Set WMP-12	4 SUPP	CalPA_Set WMP-12_Q4 SUPP	Regarding Table 9-2 (Lists of Frequently De-energized Circuits) in Appendix F of PG&E's WMP, distribution circuit Entry Numbers: 3, 4, 6, 13, 14, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 35, 49, 50, 51, 52, 53, 60, 61, 64, 65, 66, 67, 68, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 91, 94, 96, 99, 100, 101, 102, 104, 106, 107, 108, 109, 114, 115, 116, 123, 124, 127, 128, 129, 130, 132, 137, 139, 140, 142, 145, 147, 149, 150, 154, 158, 159, 164, 165, 168, 170, 171, 173, 180	We have updated our List of Frequently De-energized Circuits based on the errors found in our review. The entries listed above may not reflect the latest circuits that are mitigated by PSPS protocols. Please see attachment "WMPDiscovery2023_DR_CalAdvocates_012-Q001Supp01Atch01.xlsx" for the updated List of Frequently De-energized Circuits. a) Please refer to Section 9.2 Protocols on PSPS beginning on p. 766 for Transmission	Holly Wehrman	4/6/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
107	CalPA	Set WMP-12	CalPA_Set WMP-12	5	CalPA_Set WMP-12_Q5	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, 209, 210, 211, 212, 213, 215, 217, 218, 219, 221, 222, 223, 224, 226, 228, 231, 232, 233, 234, 235, 236 a) Please describe the PSPS protocols referenced in these Entry Numbers. b) Please explain how customers were "Mitigated by PSPS protocols." c) Please state how many customers	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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining blanks.	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
107	CalPA	Set WMP-12	CalPA_Set WMP-12	5 SUPP	CalPA_Set WMP-12_Q5 SUPP	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, 209, 210, 211, 212, 213, 215, 217, 218, 219, 221, 222, 223, 224, 226, 228, 231, 232, 233, 234, 235, 236 a) Please describe the PSPS protocols referenced in these Entry Numbers. b) Please explain how customers were "Mitigated by PSPS protocols." c) Please state how many customers	We have updated our List of Frequently De-energized Circuits based on the errors found in our review. The entries listed above may not reflect the latest circuits that are mitigated by PSPS protocols. Please see attachment "WMPDiscovery2023_DR_CalAdvocates_012-Q001Supp01Atch01.xlsx" for the updated List of Frequently De-energized Circuits. a) Please refer to Section 9.2 Protocols on PSPS beginning on p. 773 for Transmission	Holly Wehrman	4/6/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
108	CalPA	Set WMP-12	CalPA_Set WMP-12	6	CalPA_Set WMP-12_Q6	PG&E's WMP p. 751, Section 9.1.2, states that "This table [Table 9-2] also includes the mitigation measures taken, or planned to be taken, to reduce the likelihood of PSPS on those 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 "MSO device installations or replacement planned" (which is listed for 8 of 236 circuits). a) Please explain why none of the other types of	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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. Additionally, majority of the mitigation types listed on p. 751 are circuit specific and we have	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.1.2	Public Safety Power Shutoff	Identification of Frequently De-Energized Circuits
109	CalPA	Set WMP-12	CalPA_Set WMP-12	7	CalPA_Set WMP-12_Q7	Regarding ACI PG&E-22-35 (Quantify Mitigation Benefits of Reducing PSPS Scale, Scope, and Frequency) on WMP p. 972-973: a) Please explain why this table shows customer impacts in terms of incremental PSPS mitigation) for only two mitigation methods (i.e., undergrounding and MSO), while other methods (e.g., overhead hardening, sectionalizing, etc.) are not listed in this table. b) Has PG&E quantified customer PSPS impacts for other mitigation methods? c) If the	a) Table PG&E-22-35-1 shows customers mitigated and not customers impacted. In the analysis, we applied the 2022 guidance in the weather lookback period of 2018-2022. Other mitigation methods such as sectionalizing devices, grid hardening, and PSPS protocols are already factored into the lookback. This allows us to calculate the number of customers we are able to mitigate with	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-35 – Quantify Mitigation Benefits of Reducing PSPS Scale, Scope, and Frequency
110	CalPA	Set WMP-12	CalPA_Set WMP-12	8	CalPA_Set WMP-12_Q8	Regarding Section 9.2.3 (Outline of Tactical and Strategic Decision-Making Protocol for initiating a PSPS/PSPS (Such as Decision Tree)), subsection, "Pre-Energization," on WMP p. 780 states in part that "The OIC will determine whether alternatives to de-energization are inadequate…" a) Please describe the alternatives to de-energization that are considered. b) Please state the basis of PG&E's decision regarding which alternatives to consider. c) Please	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 PSPS of Circuit" of the Frequently De-energized Circuits list. We will reach out to Energy Safety to provide this corrected information and discuss updating our WMP submission pursuant to Energy Safety's guidelines. We will provide an explanation of any remaining blanks. b) See response to a).	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	9.2.3	Public Safety Power Shutoff	Outline of Tactical and Strategic Decision-Making Protocol for Initiating a PSPS/PSPS (Such as Decision Tree)
111	CalPA	Set WMP-12	CalPA_Set WMP-12	9	CalPA_Set WMP-12_Q9	Regarding WMP p. 783, Section 9.2.4 (Protocols for Mitigating the Public Safety Impacts of PSPS), including Impacts on First Responders, Health Care Facilities, Operators of Telecommunications Infrastructure, and Water Electrical Corporations/Agencies), subsection "Transit- or Paratransit Dependent Persons": a) Does PG&E notify its transit- or paratransit-dependent customers of what specific resources	a) PG&E provides 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 standalone agreement with four transportation organizations that provide accessible transportation in 12 counties. Furthermore, before and during a PSPS, PG&E provides known	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	1	N/A	9.2.4	Public Safety Power Shutoff	Protocols for Mitigating the Public Safety Impacts of PSPS, Including Impacts on First Responders, Health Care Facilities, Operators of Telecommunications Infrastructure
112	CalPA	Set WMP-12	CalPA_Set WMP-12	10	CalPA_Set WMP-12_Q10	Regarding PSPS and its relationship with EPSS settings. a) Please describe the decision-making process for a situation in which PG&E anticipates PSPS conditions but decides to utilize EPSS settings instead. b) Please list all dates in 2021 and 2022 when PG&E anticipated PSPS conditions but utilized EPSS settings instead. If this occurred	a) Enabling EPSS instead of executing PSPS is not part of the PSPS decision making process. EPSS operates independent of PSPS based on different criteria and thresholds – see Section 8.1.8.1 of PG&E's WMP. b) There were none as EPSS is not utilized instead of PSPS. Enabling EPSS instead of executing PSPS is not part of the PSPS decision making process. See response to (a) above.	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	0	N/A	N/A	Public Safety Power Shutoff & Grid Operations and Procedures	N/A
113	CalPA	Set WMP-12	CalPA_Set WMP-12	11	CalPA_Set WMP-12_Q11	Regarding notifications to customers for EPSS: a) Does PG&E provide notifications or other communication to customers when EPSS settings are enabled? (This may include, but is not limited to, notifications that a customer is served by a circuit that is subject to EPSS settings, notifications that an unplanned outage may occur, notifications of expected restoration time when an EPSS outage has occurred, or all clear	a) We have several self-serve options for customers and Public Safety Partners to determine if EPSS settings are enabled on the line serving their home or business. Unlike PSPS, because EPSS is not a planned de-energization, we do not proactively notify customers as daily enablement and disablement decisions are made. b) Our customer outreach and education process includes information about the EPSS program	Holly Wehrman	4/6/2023	4/11/2023	4/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_012.zip	1	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
114	CalPA	Set WMP-13	CalPA_Set WMP-13	1	CalPA_Set WMP-13_Q1	Figure PG&E-7.1.4-2 on p. 259 of PG&E's WMP shows Down Conductor Detection (DCD) is to be implemented on 4-wire distribution. a) Does PG&E plan to primarily implement DCD on 4-wire distribution, 3-wire distribution, or a mix? b) Please state the number of overhead circuit miles of 4-wire distribution in PG&E's HFTD	a) At this time, we plan to implement Down Conductor Detection (DCD) only on 3-wire distribution (or on overhead circuits without phase to neutral connected load downstream). PG&E will continue to explore the possibility of applying DCD to 4-wire multi-grounded systems in the future. Figure 7.1.4-2 incorrectly identified DCD applicable to 4-wire when it should have indicated 3-wire systems.	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	8.1.2.10.1	Grid Design and System Hardening	Downed Conductor Detection Devices
115	CalPA	Set WMP-13	CalPA_Set WMP-13	2	CalPA_Set WMP-13_Q2	Table 8-27 on p. 586 of PG&E's WMP summarizes grid operation monitoring systems, including Distribution Fault Anticipation (DFA) and Early Fault Detection (EFD). a) Describe the types of faults, equipment failures, and/or other issues that DFA is capable of detecting. b) Describe the types of faults, equipment failures, and/or other issues that EFD is capable of	a) Distribution Fault Anticipation (DFA) is designed to detect conditions that generate current and voltage anomalies including series arcing issues (elbows, splices, switches) and shunt arcing faults (line slap, vegetation contact, wire down). It can also detect loss of load caused by broken conductors. b) Early Fault Detection (EFD) is designed to detect conditions that generate accumulation of	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	8.3.3.1	Situational Awareness and Forecasting	Existing Systems, Technologies, and Procedures
116	CalPA	Set WMP-13	CalPA_Set WMP-13	3	CalPA_Set WMP-13_Q3	Table 7-3-1 on p. 281 of PG&E's WMP states the following objective with an estimated completion date of 12/31/2023: Develop a process of centralizing constraints resolution. As part of the build out of the centralized constraints team, three major categories will be addressed: customer constraints, environmental constraints (including internal PG&E procedures required to perform work), and permitting.	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 formalizing processes and procedures concerning how the various types of constraints that occur within the Vegetation Management (VM) department should be managed.	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	8.2.6	Vegetation Management and Inspections	Open Work Order
117	CalPA	Set WMP-13	CalPA_Set WMP-13	4	CalPA_Set WMP-13_Q4	Table 7-3-1 on p. 282 of PG&E's WMP states the following objective with an estimated completion date of 12/31/2025: For each major constraint category build a process for addressing each constraint type, implement the new process, and create metrics to track each constraint type. a) When does PG&E expect to begin implementing its process for addressing customer	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. b) The CMT has already begun facilitating regular check-in meetings with our Environmental teams to discuss environmental permitting needs, discuss opportunities for process improvement	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	8.2.6	Vegetation Management and Inspections	Open Work Order
118	CalPA	Set WMP-13	CalPA_Set WMP-13	5	CalPA_Set WMP-13_Q5	Table 7-4 on pp. 307-313 of PG&E's WMP lists the top risk circuit segments (i.e., riskiest segments when sorted by total wildfire risk). a) Footnote b in the column entitled "Jan 1, 2023 Overall Risk" states, "Accounts for risk reduction associated with EPSS." Please explain how PG&E quantified the risk reduction associated with EPSS for each circuit segment in Table 7-4.	a) Based on the recorded effectiveness performance of Enhanced Powerline Safety Settings (EPSS) in 2022, we include this effectiveness across each circuit segment across High Fire Threat Districts (HFTD) circuit segments. The recorded effectiveness compares EPSS enabled ignitions to those that met EPSS criteria and is normalized by circuit-mile-days. The recorded effectiveness uses Fire Potential Index (FPI) information provided from our Meteorology team.	Holly Wehrman	4/6/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	1	N/A	7.2.2.3	Wildfire Mitigation Strategy Development	Projected Risk Reduction on Highest-Risk Circuits Over the 3-Year WMP Cycle
119	CalPA	Set WMP-13	CalPA_Set WMP-13	6	CalPA_Set WMP-13_Q6	Table PG&E-6.2.2-1 on p. 168 of PG&E's WMP lists four consequence values derived from the mean MAVF of historical fires. a) Has PG&E performed a sensitivity study to determine the effect of these values on the output of PG&E's WFC model? A sensitivity analysis could involve (for example) perturbations in how the mean MAVF of historical fires is calculated, or which historical fires are included in the	a) Yes, a deductive sensitivity analysis was performed to determine the possible effect of these values on the output of PG&E's WFC model. Please see our response to part b) for an explanation of our deductive analysis. 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	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	6.2.2.2	Risk Methodology and Assessment	Consequence
120	CalPA	Set WMP-13	CalPA_Set WMP-13	7	CalPA_Set WMP-13_Q7	In section 7.2.1 on pp. 275-276 of PG&E's WMP, PG&E states, "We determined that PSPS is more effective at mitigating wildfire risk at a lower cost as shown by comparing the RSEs for the two programs: at the time we filed the 2023 GRC, the RSE for EVM was 14.5 compared to the EPSS RSE of 105.7." a) Other than RSE, what other criteria did PG&E available in the decision to move away from	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 faster pace of implementing EPSS compared to EVM, which results in faster risk reduction. The ability to expand EPSS across all circuits in the High	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities
121	CalPA	Set WMP-13	CalPA_Set WMP-13	8	CalPA_Set WMP-13_Q8	For each of the following programs, what metrics does PG&E track to validate their impact and effectiveness at mitigating the impacts of PSPS events? a) Temporary Distribution Microgrids b) Community Microgrid Enablement Program c) Microgrid Incentive Program	a) We track Megawatts (MW), customers mitigated, and the number of usages per location each season to validate the impact and effectiveness of Temporary Distribution Microgrids. b) We track at minimum the frequency and duration of the microgrid's usage, along with the number of benefitting customer accounts. c) Please see our response to subpart (b).	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	8.1.2.7	Grid Design and System Hardening	Microgrids
122	CalPA	Set WMP-13	CalPA_Set WMP-13	9	CalPA_Set WMP-13_Q9	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. a) Temporary Distribution Microgrids b) Community Microgrid Enablement Program c) Microgrid Incentive Program	a) Distribution microgrids are designed to power communities' central corridors, or "Main Streets", to help safely provide electricity to critical facilities and shared community resources and reduce the number of customers impacted by PSPS. In general, customers being served by a temporary distribution microgrid will experience two brief outages: one as the microgrid is connected and one when the microgrid is disconnected after the PSPS outage.	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	8.1.2.7	Grid Design and System Hardening	Microgrids
123	CalPA	Set WMP-13	CalPA_Set WMP-13	10	CalPA_Set WMP-13_Q10	Figure 7-1 on p. 298 shows a sharp decline in risk after 2026. a) Please provide context as to what drives this decline. b) Why does PG&E anticipate a significantly more rapid rate of decline in residual risk after 2026 than in the 2023-2026 period?	a) The context for this sharper decline in risk after 2026 represents the expected, continued ramp-up undergrounding miles to be installed each year. 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 20%) circuit segments, in which the benefits of undergrounding are cumulative over time. See	Holly Wehrman	4/6/2023	4/12/2023	4/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_013.zip	0	N/A	7.2.2.1	Wildfire Mitigation Strategy Development	Projected Overall Risk Reduction
124	CalPA	Set WMP-14	CalPA_Set WMP-14	1	CalPA_Set WMP-14_Q1	P. 347 of PG&E's WMP4 states (regarding PG&E's undergrounding program), "Among other benefits, the reduced pace (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.	There are also additional benefits to reducing the near-term undergrounding mileage targets, including providing more time to drive process improvements that may reduce long term costs and drive long term efficiency of the program.	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
125	CalPA	Set WMP-14	CalPA_Set WMP-14	2	CalPA_Set WMP-14_Q2	P. 347 of PG&E's WMP4 states (regarding PG&E's undergrounding program), "Among other benefits, the reduced pace (as compared to prior projections) will decrease costs in the initial years of the program." Please list "other benefits" referenced in the quote above.	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 testing to ensure accuracy. b) DTS-FAST sensor data will report alarm conditions in real time. For example, if vegetation has fallen into the alarm zone and remains (i.e., burning on the conductor top), the alarm will remain	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.6.1	Grid Design and System Hardening	Distribution, Transmission, and Substation: Fire Action Schemes and Technology
126	CalPA	Set WMP-14	CalPA_Set WMP-14	3	CalPA_Set WMP-14_Q3	P. 359 of PG&E's WMP discusses Breakaway Connectors, and states, "The breakaway disconnect uses a weak link to provide a predictable point of separation and the service will then fall to the ground de-energized." a) What is the maximum wind speed that Breakaway Connectors can handle without separating? b) Has PG&E studied whether conditions exist that could cause a temporary fault and minimal or	a) Maximum wind speed is not easily defined. Span length, tension, conductor size and wind direction all influence the maximum wind speed. General Order 95 rule 49.4 Table 8 and 49.4.C3 require Supply service drops to have a minimum strength of #8 soft or annealed copper. This is 479.8 pounds. The service breakaway has two available weak links 500 lbs. for services 75' and shorter, 750	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.6.2	Grid Design and System Hardening	Breakaway Connector
127	CalPA	Set WMP-14	CalPA_Set WMP-14	4	CalPA_Set WMP-14_Q4	P. 359 of PG&E's WMP states, "Breakaway disconnect does not impact PSPS Risk." Please state the basis for the above quote.	Breakaway disconnects are used to prevent energized wire down to minimize ignition risk. At this point in time, of the presence of breakaway disconnects is not included in PSPS scoping decisions, therefore, breakaway disconnects do not impact the PSPS risk.	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.6.2	Grid Design and System Hardening	Breakaway Connector
128	CalPA	Set WMP-14	CalPA_Set WMP-14	5	CalPA_Set WMP-14_Q5	P. 363 of PG&E's WMP states, "Temporary distribution microgrids are designed to support community resilience and reduce the number of customers impacted by PSPS by energizing 'main street corridors' with clusters of shared services and critical facilities so that those resources can continue serving surrounding residents during PSPS events."	a-c) Responses are summarized in the tables below, by year: 2020: Temporary Distribution Microgrid available to operate in 2020 Number of 2020 PSPS events supported Approx. qty of service pts energized per 2020 PSPS event	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.7.2	Grid Design and System Hardening	Temporary Distribution Microgrids
129	CalPA	Set WMP-14	CalPA_Set WMP-14	6	CalPA_Set WMP-14_Q6	P. 363 of PG&E's WMP states, "The Redwood Coast Airport Microgrid (RCAM) was also through a California Energy Commission EPIC grant to the Schatz Energy Center and loan from United States of America to the Redwood Coast Energy Authority (a Community Choice Aggregator), in collaboration with PG&E's EPIC 3.11, 'Multi-Use Microgrid,' project."	a. PG&E's total costs for the RCAM project were approximately $3.3MM. PG&E does not have the project financials of our project partners. Please contact Schatz Energy Research Center at Cal-Poly Humboldt and Redwood Coast Energy Authority for details on their total project costs and funding sources. b. Of PG&E's total project costs, i. $3,085,000 was funded through CEC's EPIC grant (EPIC 3.11, Multi-Use Microgrid), ii. $234,140 in cost offsets were provided to the	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.7.3	Grid Design and System Hardening	Community Microgrid Enablement Program and Microgrid Incentive Program
130	CalPA	Set WMP-14	CalPA_Set WMP-14	7	CalPA_Set WMP-14_Q7	P. 365 of PG&E's WMP states, "The successful deployment of RCAM provides a model for other communities for collaborative development of multi-customer microgrids for energy resilience." a) How does PG&E determine the success of the RCAM? b) Please provide data to support the success of the RCAM.	Attachments to this data response contain CONFIDENTIAL information provided pursuant to the Non-Disclosure Agreement in this proceeding. a) Prior to the start of the Project, PG&E defined the following metrics to calculate the full deployment benefits at RCAM: 1. Increase reliability at critical facilities - Post-deployment measurements of outage number	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	4	N/A	8.1.2.7.3	Grid Design and System Hardening	Community Microgrid Enablement Program and Microgrid Incentive Program

131	CalPA	Set WMP-14	CalPA_Set WMP-14	8	CalPA_Set WMP-14_Q8	P. 369 of PG&E's WMP states, "For 2023, we have planned to install devices that will provide significant reliability benefits on fuse tap lines that are in the scope of EPSS." a) Please quantify the "significant reliability benefits" that will be provided from devices installed in 2023. b) Please provide any available workpapers or studies to support your response to part (a)	a) Significant reliability benefits are projected at 119,000 CESO savings and 14.618 million customer minutes. During EPSS enablement, upstream protective devices are required to see faults beyond fuses to provide a gang trip of all three phases upon a fault condition. This practice nullifies the benefits of traditional line fuse protection. With these additional protective devices installed, protection granularity and corresponding reliability impact can be returned to the tapline	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.8.1	Grid Design and System Hardening	Installation of System Automation Equipment – Distribution Protective Devices
132	CalPA	Set WMP-14	CalPA_Set WMP-14	9	CalPA_Set WMP-14_Q9	P. 385 of PG&E's WMP states that it will perform a "Substation Animal Abatement Effectiveness Study" in 2023. a) When does PG&E expect to begin the Substation Animal Abatement Effectiveness Study? b) When does PG&E expect to complete the Substation Animal Abatement Effectiveness Study?	a) The study was officially kicked off on January 26, 2023. The "P51" team at Electric Power Research Institute (EPRI) was provided with PG&E historical animal contact records, existing and historical animal abatement strategies employed by PG&E, and other pertinent information needed to perform the study. b) The study is expected to conclude by July 18, 2023	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.12.2	Grid Design and System Hardening	Other Technologies and Systems – Substation Animal Abatement
133	CalPA	Set WMP-14	CalPA_Set WMP-14	10	CalPA_Set WMP-14_Q10	P. 393 of PG&E's WMP states, "In 2022 PGE implemented revisions made to TD-2325, which incorporated industry best practices as well as adjusted the pole rejection criteria." Please list the adjustments that PG&E made to the pole rejection criteria.	Please see our current procedure TD-2325P-01 for the requested information: https://www.pge.com/pge_global/common/pdfs/safety/emergency preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/standards-and procedures/td-2325p-01.pdf The Revision Notes table on page 40 of the document describes in detail the changes that were made compared to the prior version	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.3.1.5	Asset Inspections	Intrusive Pole Inspection
134	CalPA	Set WMP-14	CalPA_Set WMP-14	11	CalPA_Set WMP-14_Q11	P. 400 of PG&E's WMP states, "PG&E designated plat maps as extreme, severe, high, medium, or low based on the average wildfire consequence of the structures within that plat map." a) Is the designation described above based on the wildfire consequence scores from the WDRM v2 or the WDRM v3? b) How frequently does PG&E plan to re-evaluate the plat map designations described above?	a) The quote referenced above is based on the wildfire consequence scores from the WDRM v3. b) We plan to review wildfire risk model results annually and evaluate how to update the inspection plan accordingly. c) After we review risk model results each year, we will evaluate whether the plan needs to be adjusted. Updates to the plan may include reassigning a plat map to a different consequence tier	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.3.2.1	Asset Inspections	Detailed Ground Inspection
135	CalPA	Set WMP-14	CalPA_Set WMP-14	12	CalPA_Set WMP-14_Q12	Table PG&E-8.1.7-6 on p. 458 of PG&E's WMP shows that PG&E added 41,869 distribution work orders to its HFTD/HFRA backlog in 2022. a) What measures has PG&E implemented to ensure that it will be able to reduce its backlog in 2023 by closing more tags than it opens? b) What factors may prevent PG&E from reaching its targets regarding backlog reduction in	a) In order to ensure we will continue to reduce our backlog of asset tags, as of January 1, 2023, all new HFTD/HFRA tags will be completed by the compliance date. Thus, these tags will be in a "steady state" where this population is no longer growing. In addition to this work, we will continue with the plan set out in our 2022 and 2023 WMPs where we target the HFTD/HFRA tags in our backlog with the highest risk, eliminating first our "non-pole ignition risk tags" then our "pole ignition	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.7.2	Open Work Orders	Open Work Orders – Distribution Tags
136	CalPA	Set WMP-14	CalPA_Set WMP-14	13	CalPA_Set WMP-14_Q13	P. 463 of PG&E's WMP states, "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 is meant by the above quote.	Enhanced Powerline Safety Settings (EPSS) enable capable protective devices on a circuit to operate in 0.1 seconds or less in order to de-energize and isolate affected portion(s) of our distribution system when a fault or abnormal condition is detected that could generate a spark and subsequent wildfire ignition as well as detecting higher impedance faults. Outages that occur when EPSS settings are enabled on protection devices are unplanned and only occur when an external	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
137	CalPA	Set WMP-14	CalPA_Set WMP-14	14	CalPA_Set WMP-14_Q14	Per PG&E's January 2023 EPSS monthly report, PG&E experienced 2,375 EPSS outages in 2022. a) Of the EPSS-triggered outages in 2022, in how many of these outages did PG&E find that no corrective actions were required prior to re-energizing (i.e. there was no persistent condition that PG&E needed to resolve upon inspecting the location of the outage)?	a) PG&E reported 1,083 unknown cause outages in 2022. Note that while this is indicative that a conclusive corrective action was not identified during the outage patrol and restoration process, it is not indicative of no ignition risk. Our focus during outage patrols and restoration is to restore power as soon as it is safe to do so for our customers and communities. b) Outages that occurred as a result of planned switching or from in rush current (e.g. a pump or	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
138	CalPA	Set WMP-14	CalPA_Set WMP-14	15	CalPA_Set WMP-14_Q15	P. 465 of PG&E's WMP states, "In 2022, we expanded the scope of EPSS to all HFRAs in our service territory and select adjacent EPSS buffer areas." a) In 2022, did PG&E expand the scope of EPSS to all HFRAs and all HFTD? b) If PG&E did not expand the scope of EPSS to all HFTD in 2022, please state the basis for this decision	a) EPSS capability was extended to 100% of HFRA in 2022. 100% of HFTD was not targeted. b) PG&E's HFRA map is a purpose-built map to inform the Public Safety Power Shutoff (PSPS) and EPSS scoping process by identifying areas in PG&E's service area where overhead electrical infrastructure could be the source of an ignition that results in a catastrophic wildfire and accordingly, is used for EPSS scoping	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
139	CalPA	Set WMP-14	CalPA_Set WMP-14	16	CalPA_Set WMP-14_Q16	Cal Advocates understands that a circuit segment that has been undergrounded may still experience PSPS outages, if segments upstream or downstream of the undergrounded circuit segment are subject to PSPS. a) Is the above understanding correct? If not, please correct the above. b) During the 2023-2025 WMP period, does PG&E intend to utilize temporary microgrids or other	a) Yes, that statement is correct. While it is unlikely that a downstream segment would affect the underground section, it is possible if there are no available downstream isolation devices. b) In cases where undergrounding segments affected by upstream overhead segments, mitigations such as Temp Microgrids may possibly remove the underground section from scope. However, it may not be feasible to utilize temporary microgrids due to resource constraints	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	9.1.5	Public Safety Power Shutoff	Performance Metrics Identified by the Electrical Corporation
140	CalPA	Set WMP-14	CalPA_Set WMP-14	17	CalPA_Set WMP-14_Q17	a) Has PG&E performed a study or back cast to predict the likelihood that an undergrounded segment will be subject to PSPS de-energizations due to upstream or downstream segments becoming subject to PSPS? b) If the answer to part (a) is yes, please provide the results of any such studies. c) If the answer to part (a) is no, please explain why not	a) No, we have not performed a study or back cast mentioned in the question. b) See response to a. c) Projecting likelihood of an underground segment being subject to PSPS is possible but would take significant manual effort. However, back cast weather data was used to analyze the expected reduction in customers affected by PSPS for future underground work	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	9.1.5	Public Safety Power Shutoff	Performance Metrics Identified by the Electrical Corporation
141	CalPA	Set WMP-14	CalPA_Set WMP-14	18	CalPA_Set WMP-14_Q18	a) Has PG&E performed a study or back cast to predict the likelihood that an undergrounded segment will be subject to an EPSS-triggered de-energizations due to upstream or downstream segments becoming subject to EPSS? b) If the answer to part (a) is yes, please provide the results of any such studies. c) If the answer to part (a) is no, please explain why not	a) We have not performed this type of study. b) Not applicable. Please see the response to subpart a). c) PG&E has not yet performed this type of study because the volume of mileage that has been placed underground is relatively small. The analysis would need to be circuit specific. For this type of study to be more meaningful, a greater number of underground miles would need to be	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
142	CalPA	Set WMP-14	CalPA_Set WMP-14	19	CalPA_Set WMP-14_Q19	Please provide a list of all dig-in incidents that occurred from 2020-2022 and involved an underground electric distribution line. For each incident, please provide: a) Date of the incident b) Whether the dig-in was caused by PG&E employees, PG&E contractors, or a third-party c) Duration of the resulting outage, if applicable	PG&E objects to this request as beyond the scope of this proceeding and unrelated to PG&E's 2023 WMP. Notwithstanding and without waiving these objections, we provide the following information in relation to dig ins that happened in the 2020 to 2022 timeframe within HFTD Tier 2 and Tier 3 zones: a) Please see column A of attachment "WMP-Discovery2023_DR_CalAdvocates_014-	Holly Wehrman	4/11/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	1	N/A	8.4.2.1	Emergency Preparedness	Overview of Wildfire and PSPS Emergency Preparedness
143	CalPA	Set WMP-14	CalPA_Set WMP-14	20	CalPA_Set WMP-14_Q20	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 pole? 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 replaced pole? c) If the answer to part (a) is yes, please provide the number of such poles that PG&E replaced	(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.	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
144	CalPA	Set WMP-14	CalPA_Set WMP-14	21	CalPA_Set WMP-14_Q21	a) During the period from 2020-2022, did PG&E replace any distribution conductor as part of its WMP activities for which PG&E had not fully recovered the original cost of the conductor? This may involve undergrounding a previously hardened line, or replacing a bare overhead line with covered conductor. b) If the answer to part (a) is yes, what was PG&E's practice regarding cost recovery on the	(a) – (c) We cannot provide the requested data. PG&E's 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.	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.2.5.2	Grid Design and System Hardening	Traditional Overhead Hardening – Distribution
145	CalPA	Set WMP-14	CalPA_Set WMP-14	22	CalPA_Set WMP-14_Q22	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 transformer? 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 replaced transformer? c) If the answer to part (a) is yes, please provide the number of such transformers that PG&E	(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.	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	8.1.4.11	Equipment Maintenance and Repair	Transformers
146	CalPA	Set WMP-14	CalPA_Set WMP-14	23	CalPA_Set WMP-14_Q23	a) In 2022, how many ignitions did PG&E experience related to overhead covered conductor distribution lines? b) In 2022, how many ignitions did PG&E experience related to overhead bare conductor distribution lines? c) In 2022, how many ignitions did PG&E experience related to underground distribution lines?	a) In 2022, PG&E observed 1 CPUC reportable ignition where the equipment type associated with the ignition was insulated distribution primary overhead conductor. b) In 2022, PG&E observed 183 CPUC reportable ignitions where the equipment type associated with the ignition was bare distribution primary overhead conductor. c) In 2022, PG&E observed 1 CPUC reportable ignition where the equipment type associated with	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-06 – Addressing Increase in Risk Events
147	CalPA	Set WMP-14	CalPA_Set WMP-14	24	CalPA_Set WMP-14_Q24	a) In 2022, how many ignitions did PG&E experience related to overhead secondary distribution lines? b) In 2022, how many ignitions did PG&E experience related to overhead service lines?	a) In 2022, PG&E observed 44 CPUC reportable ignitions associated with overhead secondary facilities. b) In 2022, PG&E observed 54 CPUC reportable ignitions associated with overhead distribution service facilities.	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-06 – Addressing Increase in Risk Events
148	CalPA	Set WMP-14	CalPA_Set WMP-14	25	CalPA_Set WMP-14_Q25	P. 89 of PG&E's 2022 Joint Annual Report to Shareholders states: On October 26, 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	a) Please see "WMP-Discovery2023_DR_CalAdvocates_014-Q025Atch01.pdf" for the requested information. b) The specific referenced non-compliances were with General Order (GO) 95, Rules 12.2 and 44.3. Please see page 1 of "WMP Discovery2023_DR_CalAdvocates_014-Q025Atch01." c) The specific referenced condition is when both the remaining strength of the pole and the	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	1	N/A	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
149	CalPA	Set WMP-14	CalPA_Set WMP-14	26	CalPA_Set WMP-14_Q26	P. 89 of PG&E's 2022 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 intrusive inspections in accordance with GO 165's deadlines due to legacy issues, which should no longer be an issue due to changes in Utility procedures.	a) Please see "WMP-Discovery2023_DR_CalAdvocates_014-Q026Atch01.pdf" for the requested information. b) 213 out of the 950 poles sampled (22%) did not have evidence of intrusive inspections within the compliance timeframe. Please see pages 2 through 3 of "WMP-Discovery2023_DR_CalAdvocates_014-Q026Atch01.pdf."	Holly Wehrman	4/11/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_014.zip	1	N/A	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
150	CalPA	Set WMP-15	CalPA_Set WMP-15	1	CalPA_Set WMP-15_Q1	PG&E states in response to Question 1 (b) of CalAdvocates-PGE-2023WMP-08: PG&E will maintain clearances where EVM work occurred. PG&E will also be prescribing a minimum radial clearance of 12 feet throughout the system within HFTD and HFRA. Two new programs, Vegetation Management for Operational Mitigation (VMOM) and Focused Tree Inspection, are likely to result in individual trees that warrant enhanced clearance where EVM was	a) Vegetation Management for Operational Mitigation (VMOM) will be primarily focused in HFTD and HFRA. There are instances where a circuit segment may cross in or out of HFTD/HFRA and VMOM would complete work on the whole circuit segment including the areas outside HFTD/HFRA. Focused Tree Inspections are planned for HFTD areas in the plan developed for 2023	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
151	CalPA	Set WMP-15	CalPA_Set WMP-15	2	CalPA_Set WMP-15_Q2	PG&E states in response to Question 1 (c) (iii) of CalAdvocates-PGE-2023WMP-08 that its strategy for determining desired clearance distances going forward will be "Minimum of 12 feet of clearance or enough clearance to mitigate potential impacts to facilities if tree (whole or portion of) failure were to occur." Please describe PG&E's planned methodology for determining sufficient clearance to mitigate	Obtaining clearance consistent with GO 95 Rule 35 at the time-of-trim recommendations in the HFTD may often require enhanced clearance beyond those recommendations to address tree conditions, the overall impacts of pruning to tree health, may compel tree removal, which can be interpreted as enhanced clearance. As a methodology, the goal is to mitigate identified problematic tree conditions between inspection cycles and obtaining 2-3 years of clearance	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
152	CalPA	Set WMP-15	CalPA_Set WMP-15	3	CalPA_Set WMP-15_Q3	PG&E states in its response to Question 2 (b) of CalAdvocates-PGE-2023WMP-08: "Two new programs, Vegetation for Operational Mitigations (VMOM) and Focus Tree Inspections (FTI) will identify new trees for the sort of work identified in this [tree] inventory. Additionally, if any priority trees are discovered while completing the TRI scope of work, they would be listed for work consistent with all other VM programs."	PG&E intends to track trees identified for work under VMOM and FTI using the OneVM tool.	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
153	CalPA	Set WMP-15	CalPA_Set WMP-15	4	CalPA_Set WMP-15_Q4	PG&E states in its response to Question 1 (c)(iii) of CalAdvocates-PGE-2023WMP-08 that it will decide desired clearance distances "Based on analysis of outage data and trends by AOC. Additionally, any tree which is within MDR, will be within the MDR before next work completion cycle or is showing signs of imminent failure before next work completion cycle." a)Please provide how PG&E will determine desired clearance distances using analysis of	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 data is intended to help inform the Vegetation Management Inspector (VMI) to identify which species and failure types are increasing localized outage trends. For example, this information can help determine if overhanging branch failure is a problematic local trend. In that situation, overhang	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
154	CalPA	Set WMP-15	CalPA_Set WMP-15	5	CalPA_Set WMP-15_Q5	PG&E states in its response to Question 2 (c) of CalAdvocates-PGE-2023WMP-08 that it "utilized VM EPSS-enabled outage data, historical VM outage data, and customer outage impact data" in devising the VMOM scope of work. a)Please describe how PG&E has utilized each of the following data types in devising the VMOM scope of work:	a) i. VM EPSS-enabled outage data was used to determine both a planned unit forecast and identify CPZs where EPSS VM Outages took place. ii. Historical VM outage data was used to identify CPZs where reoccurring VM outages took place. iii. Customer outage impact data was used to identify customers who experienced more frequent	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
155	CalPA	Set WMP-15	CalPA_Set WMP-15	6	CalPA_Set WMP-15_Q6	PG&E states in its response to Question 2 (c) of CalAdvocates-PGE-2023WMP-08 that: For FTI, Areas of Concern (AOCs) were identified through a cross-functional effort utilizing county-based regional reviews to create polygons which are geographic areas. Initial polygon development utilized WDRMv3 consequence scores, Public Safety Specialist circuit-based evaluations, expertise, 30-year lookback of meteorology data, and analysis, identified PSPS	a) i. WDRMv3 Consequence scores aided in quality checking the AOC polygons. Adding this to the process resulted in adding two additional AOC polygons containing 32 circuit miles. WDRMv3 was also used to rank and prioritize the AOC into the tranches. ii. Public Safety Specialists (PSS) circuit-based risk assessments were not specifically developed	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
156	CalPA	Set WMP-15	CalPA_Set WMP-15	7	CalPA_Set WMP-15_Q7	PG&E states in its response to Question 2 (h) of CalAdvocates-PGE-2023WMP-08 its Tree Inventory Program "is planned to last 9 years". In response to Question 9 (a) of CalAdvocates-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. a)Please explain why PG&E is forecasting it will take 9 years to work down its previously	a) The pace was provided for the first three years of the program with intent to ramp up annual pace. 9 years is a starting point to plan the pace of work completion however, the lessons learned will inform the completion timing. b) We anticipate that there will be opportunities in the initial years of the program for lessons learned regarding safety, efficiencies, and coordination with other system hardening activities, so	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
157	CalPA	Set WMP-15	CalPA_Set WMP-15	8	CalPA_Set WMP-15_Q8	PG&E states in its response to Question 3 (h) of CalAdvocates-PGE-2023WMP-08 that "The Wildfire Data Risk Model (WDRM) v3 was utilized to prioritize nine CPZs for the VMOM program." a)Please provide the CPZs that were prioritized for the VMOM program. b)How was the WDRM v3 model utilized in prioritizing the nine CPZs? c)What risk threshold, or other criteria, was used in prioritizing the nine CPZs?	a) Narrows 21052216 Morgan Hill 2111XR398 Laureles 11112020 Templeton 2110901690 Big Basin 11010720	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.3	Vegetation Management and Inspections	VM for Operational Mitigations
158	CalPA	Set WMP-15	CalPA_Set WMP-15	9	CalPA_Set WMP-15_Q9	PG&E states in its response to Question 3 (f) of CalAdvocates-PGE-2023WMP-08 that "PG&E will utilize EPSS Outages Extent of Condition (EOC) patrols 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." Please provide the time frame or date when PG&E would plan to complete the additional tree work	The additional tree work that is generated throughout the year will be worked according to normal VM program timelines. If vegetation is determined to be an immediate risk to PG&E facilities, described as a Priority 1 in the VM Priority Tag Procedure, the condition will be mitigated within 24 hours of identification as long as conditions are safe for the tree crew to proceed with work. Priority 2 tags are issued for	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.3	Vegetation Management and Inspections	VM for Operational Mitigations
159	CalPA	Set WMP-15	CalPA_Set WMP-15	10	CalPA_Set WMP-15_Q10	PG&E states in its response to Question 4 (e) of CalAdvocates-PGE-2023WMP-08 that "Pilot AOCs are prioritized using WDRMv3. The four pilot AOCs selected for 2023 incorporated additional reviews from the VM Execution Operational Team to select appropriate regional areas to inform the programs development." a)Please describe how the Pilot AOCs were prioritized using WDRMv3	a) WDRMv3 vegetation scores were aggregated at the AOC level for each circuit segment within AOC polygon boundaries. The resulting WDRMv3 aggregated scores were averaged per AOC, leading to a ranking which was used to prioritize AOCs. The pilot AOCs were selected among the top 25 ranked AOCs. Pilot AOC selection process is described in response b). b) The four pilot areas were all selected from the highest ranked tranches as prioritized by	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
160	CalPA	Set WMP-15	CalPA_Set WMP-15	11	CalPA_Set WMP-15_Q11	PG&E states in its response to Question 4 (g)(i) of CalAdvocates-PGE-2023WMP-08 that the scope of work for Focused Tree Inspection pilots is to Complete a focused tree inspection pilot project of ~300 OH line miles in 2023 to calibrate processes and optimize efficiencies. Inspections will utilize Tree Risk Assessment Qualification (TRAQ) Certified Arborists. Tree mitigations will be determined as necessary based on site and	a) With a goal to identify regionally variable AOC to pilot the initial program the four AOCs were selected (See response to Question 10b). The 300 miles represents approximately 10% of the overall prioritized AOCs available for 2023 and is intended to yield the learnings needed to support and inform future work plans. Certified Arborists with the additional TRAQ certification can implement industry best standards	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections

161	CalPA	Set WMP-15	CalPA_Set WMP-15	12	CalPA_Set WMP-15_Q12	PG&E states in its response to Question 4 (h)(i) of CalAdvocates-PGE-2023WMP-08 that "While inspection tools and data collection are expected to be standardized it is anticipated that more regional guidance will utilize historical outage data to help us identify problematic tree species and failure modes and site conditions to support focused inspection decisions and prescriptions." a)Does "more regional guidance" mean guidance specific to each Area of Concern that will be	a) The following clarifications are to provide more detail on what "more regional guidance" is intended to accomplish. Guidance associated with tools utilized and data collected are expected to be standardized for the FTI program in all AOCs during the initial pilots. The outage, species and tree failure details available for each AOC will vary and are expected to be reviewed prior to starting patrols. The data is for situational awareness, some of which may be unique within an	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
162	CalPA	Set WMP-15	CalPA_Set WMP-15	13	CalPA_Set WMP-15_Q13	PG&E states in its response to Question 4 (k) of CalAdvocates-PGE-2023WMP-08 that "Pass or Fail 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 cycles." Please provide all criteria that PG&E will employ to determine tree trimming and removal, including	Level 1 inspections are to be performed during patrols . Site specific and tree specific conditions will help inspectors determine when Level 2 inspections are needed to determine if a tree needs to be completely removed or trimmed to mitigate risks between inspection cycles in the AOC. Guidance provided in the California Power Line Fire Prevention Field Guide, "HAZARD TREES/VEGETATION CLEARANCE" section, provides criteria that can aid in the appropriate	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	1	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
163	CalPA	Set WMP-15	CalPA_Set WMP-15	14	CalPA_Set WMP-15_Q14	PG&E states in its response to Question 6 (f) of CalAdvocates-PGE-2023WMP-08 that: "PG&E has performed lab testing which has shown DCD is able to detect and de-energize downed conductors reducing ignition risk where installed." a)Please describe the methods, scope, and findings of the abovementioned lab testing. b)Please provide any documents generated from the abovementioned lab testing, including	a) DCD lab testing was formally conducted at ATS in 2022 to validate DCD effectiveness to detect and de-energize downed conductors, as well as calibration, troubleshooting, tuning, maintenance, and debugging. The tests were designed to mimic high impedance fault conditions experienced in the system such as a tree resting on energized conductor, or an energized conductor lying on soil, concrete, and various fine fuels. These tests successfully demonstrated	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	1	N/A	8.2.3.4	Vegetation Management and Inspections	Fall-In Mitigation
164	CalPA	Set WMP-15	CalPA_Set WMP-15	15	CalPA_Set WMP-15_Q15	PG&E states in its response to Question 12 of CalAdvocates-PGE-2023WMP-08 that: "Should a program fall below a 95% pass rate, catch back plans will be developed in partnership with VM execution to mitigate for specific cause of deficient rate." Please describe the nature of the abovementioned "catch back plans".	A Catch Back is a recovery plan developed when project milestones are off-track. The Catch Back Plan is developed by the project owner with stakeholders, and includes the specific problem, counter measure(s) to date, raised issue date, target closure date, owner, and status.	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.5	Vegetation Management and Inspections	Quality Assurance/Quality Control
165	CalPA	Set WMP-15	CalPA_Set WMP-15	16	CalPA_Set WMP-15_Q16	PG&E states in its response to Question 13 (parts a, b, and c) of CalAdvocates-PGE-2023WMP-08 that: Improved quality verticals have been established for 2023, allowing for greater insight into overall VM work product throughput and risk identification/mitigation. Clear definitions of acceptance criteria, sampling methodology, population eligibility, and pass rate calculations were established	a) Quality Control > Quality Assurance were implemented as complimentary layers of defense against deficiencies. The "improved quality verticals" mean that PG&E has implemented complimentary layers of protection (swiss cheese model) to ensure safety, compliance and continuous improvement. b) In each of the primary VM programs (Routine Distribution, Routine Transmission, and	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.5.1	Vegetation Management and Inspections	Quality Assurance and Quality Verification
166	CalPA	Set WMP-15	CalPA_Set WMP-15	17	CalPA_Set WMP-15_Q17	PG&E states in its response to Question 17(a) of CalAdvocates-PGE-2023WMP-08 that "For Routine and Second Patrol, PG&E does not currently have standards specific to high-risk species", but that species types will be incorporated into Focused Tree Inspections pilots in 2023. PG&E 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	a) Species is just one factor of many that PG&E takes into account to reliably identify the higher risk trees. Trees identified during routine and second patrol inspection cycles that require mitigation per PRC4293 and GO95 Rule 35 are expected to be identified and listed for work regardless of species. b) As described in response to CalAdvocates-PGE-2023WMP-08-Q17, the Focused Tree	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.3.6	Vegetation Management and Inspections	High-Risk Species
167	CalPA	Set WMP-15	CalPA_Set WMP-15	18	CalPA_Set WMP-15_Q18	PG&E states in its response to Question 18 of CalAdvocates-PGE-2023WMP-08 that "The Quality Management team has aligned on setting target pass rates at 88% for Field Quality Control Active Observation Programs for the following core vegetation management programs: Routine Distribution, Second Patrol Distribution, Vegetation Control, and Routine Transmission." Please state the basis, provide the method, and supporting documentation for the	Basis for deciding on the 88% target – PG&E decided to utilize Q1 2023 data to establish a baseline target pass rate as pass rates were not calculated in previous years. Performance for Q1 2023 data shows an average pass rate of approximately 88% for Routine Distribution, Second Patrol Distribution, and Vegetation Control, which are the three programs for which we have data. We extended the 88% target pass	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	2	N/A	8.2.3.6	Vegetation Management and Inspections	High-Risk Species
168	CalPA	Set WMP-15	CalPA_Set WMP-15	19	CalPA_Set WMP-15_Q19	In its response to Question 5 of CalAdvocates-PGE-2023WMP-08, PG&E provides the following table of actual and forecasted costs for vegetation management programs. PG&E further states that "The EVM Transitional programs for VM are Focused Tree Inspections, VM for Operational Mitigations, and Tree Removal Inventory.".	a) Please see the updated table which includes forecast costs for each EVM transitional program. These programs were not active in 2022 therefore actual costs are not available. ACT FCST FCST 2022 2023 2024 Tree Mortality $ 108,129 $ 100,617 $ 98,112	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.5.2	Vegetation Management and Inspections	Quality Control
169	CalPA	Set WMP-15	CalPA_Set WMP-15	20	CalPA_Set WMP-15_Q20	In its response to Question 19(e) of CalAdvocates-PGE-2023WMP-08, PG&E says, "We do not have a source for tracking planned worked date for individual trees and are unable to provide the data at this time." a)Does PG&E plan to develop a source for tracking planned work date for individual trees? b)If the answer to part (a) is yes, when does PG&E expect to have such a system implemented?	a) No, PG&E does not have a plan to develop a source for tracking planned work date for individual trees. b) Not applicable. c) When individual trees are identified as needing work, they are packaged into a work request that may contain multiple trees on the same circuit. The work identified is then sent out and	Holly Wehrman	4/11/2023	4/14/2023	4/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_015.zip	0	N/A	8.2.3.4	Vegetation Management and Inspections	Fall-In Mitigation
170	TURN	004	TURN_004	1	TURN_004_Q1	Following up on the response to TURN Data Request 3, Question 2, please provide PG&E's data showing the "recorded reliability improvements at locations that have been undergrounded and/or have been hardened with covered conductor" that will be assessed in the study planned for completion on June 30, 2023.	We are providing the base 3-year outage dataset in the attachment "WMP Discovery2023_DR_TURN_004-Q001Atch01CONF.xlsx." We are compiling additional complimentary datasets because hardening work is done at targeted high risk segments, and these project locations do not completely line up with the data captured in outage records.	Tom Long	4/12/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_004.zip	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_Q2	Regarding Table PG&E-22-35-1 (PSPS Events Lookback Analysis) on page 972 of PG&E's 2023-2025 WMP: a.For each column with numerals, provide a verbal description of all input data and of how the numerals in each column were calculated. b.Provide the table in live Excel format.	a. Input Data: the columns in Table PG&E-22-35-1 used the following input data: 2022 PSPS Five-Year Lookback Analysis (2018-2022): this is an analysis which shows the hypothetical PSPS events created by applying 2022 PSPS guidance to the weather from 2018-2022. This is our most accurate method of estimating PSPS impacts based on our latest PSPS guidance, and results in a dataset identifying the list of customers impacted per hypothetical event. This list of	Tom Long	4/12/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_004.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-35 Quantify Mitigation Benefits of Reducing PSPS Scale, Scope, and Frequency
172	TURN	004	TURN_004	3	TURN_004_Q3	Regarding PG&E's response to ACI PG&E 22-35, beginning on page 971 of its WMP: a.Please identify each mitigation discussed in PG&E's current WMP or its 2022 WMP that has the potential to mitigate the scale, scope, frequency, or duration of PSPS events. b.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 subpart (a).	a. The 2022 WMP and 2023 WMP collectively discuss the following mitigations with the potential to mitigate the scale, scope, frequency, or duration of PSPS events: • Distribution Sectionalizing Devices • Transmission Line Sectionalizing or Switching • Distribution Line Motorized Switch Operator (MSO) Replacements	Tom Long	4/12/2023	4/17/2023	4/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_004.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-35 Quantify Mitigation Benefits of Reducing PSPS Scale, Scope, and Frequency
173	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003	1	CPUC - SPD (Safety Policy Division)_003_Q1	1.Fill in the attached spreadsheet "Wildfire Mitigation Table DR – PG&E." The first tab is a "Glossary" which provides definitions for each attribute. The other tabs, "Data Input," "Asset Inspections," and "VM Inspections;" all need to be completed with data inputted from PG&E.	Please see attachment "WMP-Discovery2023_DR_SPD_003-Q001Atch01.xlsx" which is the completed Wildfire Mitigation Table DR – PG&E template provided to us by SPD.	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_003.zip	1	N/A	8	Wildfire Mitigation	N/A
174	CPUC - SPD (Safety Policy Division)	003	CPUC - SPD (Safety Policy Division)_003	2	CPUC - SPD (Safety Policy Division)_003_Q2	2.In "PGE_2023_WMP_R0_Section_642_Atch01," SPD has observed the mitigation effectiveness of Covered Conductor is on the order of 49% compared to the value reported in the WMP which is 64% (page 340). Explain the discrepancy.	The cited information is incorrect in the WMP. We have corrected it in response to this discovery request. We will reach out to Energy Safety to discuss this update and making corrections to the WMP pursuant to Energy Safety's Guidelines. The 49% effectiveness cited above was due to an incorrect link in the original file and has been corrected in "WMP-Discovery2023_DR_SPD_003-Q004Atach1"	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_003.zip	0	N/A	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	3	CPUC - SPD (Safety Policy Division)_003_Q3	3.Confirm or revise PG&E's Butte County OH to UG conversion factor in the 2023-2025 WMP (currently 1.57 in the GRC) based on actual and estimated UG miles for 2023-2026. In the PG&E 2023 GRC Reply Brief (Dec '22) PG&E forecast 2,000 SH UG miles (MAT 08W) and 100 Butte County UG miles (MAT 95F) for 2023-2026.	PG&E confirms that our Butte County OH to UG conversion factor for the 2023-2025 WMP is 1.57.	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_003.zip	0	N/A	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	4	CPUC - SPD (Safety Policy Division)_003_Q4	4.Based on WSPS' initial review of the wildfire ignitions and general understanding of PG&E's undergrounding program, it appears that undergrounding would have prevented only 87% of CPUC-reportable ignitions in the HFTD area between 2020-2022 primarily due to the impact of secondary and service conductor ignitions. Additionally, SPD noted ten CPUC-reportable ignitions in PG&E territory during 2022 which were related to undergrounding. [The data used is the fire	a) In the 2022 WMP discovery process, we provided a data response that showed how PG&E estimated the effectiveness of undergrounding in reducing ignitions (WMP Discovery2022_DR_CalAdvocates_028-Q04). As PG&E explained in that data request: PG&E's estimate of the effectiveness of undergrounding in reducing ignitions is based on subject matter expertise. We validated this estimation using the ignition rate per mile for overhead and	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_003.zip	1	N/A	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	5	CPUC - SPD (Safety Policy Division)_003_Q5	5.Regarding the UG workplan table provided by PG&E, 2023-03-27_PGE_2023_WMP_R0_Appendix D ACI PG&E-22-16_Atch01_CONF.xlsx: a.Why does Column "O" "Risk Rank (V2)" begin at Rank 7 (as opposed to 1) for circuits? i.Why does it end at 3328? ii.Why do the gaps in rank 1-N exist?	a. There are three primary reasons why the risk ranking does not begin at 1: 1. If the circuit segment length is less than 1 mile then those smaller segments are bundled with other larger projects (e.g., the circuit segments that are risk ranked 1, 3, 4, and 5 were all less than 1 mile and bundled with other larger groups of circuit segments). 2. Some of the circuit segments are privately owned lines; we send an annual letter to the owner	Kevin Miller	4/12/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_003.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-16 – Progress and Updates on Undergrounding and Risk Prioritization
178	OEIS	002	OEIS_002	1	OEIS_002_Q1	a.Has PG&E used its Targeted Tree Species study to identify additional clearances for and begin inventory of trees with the highest growth and highest failure potential? i.If so, explain the results and how PG&E has and will integrate this knowledge into its VM programs. ii.If not, please explain PG&E's plan to perform this analysis and provide a timeline for completion	a. i. No, PG&E has not used its Targeted Tree Species study to identify additional clearances for inventory of trees with the highest growth and highest failure potential and there is currently no plan to begin such an inventory. The Targeted Tree Species Study (TTSS) did not include in its objective any analysis of tree growth rates or make any recommendations on clearances to be	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-24 – Progression of Vegetation Management Maturity
179	OEIS	002	OEIS_002	2	OEIS_002_Q2	a.What are the minimum qualifications for an inspector preforming the tree-risk assessment for the Focused Tree Inspections? b.Why and how did PG&E choose to use the American National Standards Institute (ANSI) A-300 tree risk assessment standard over PG&E's Tree Assessment Tool (TAT) for Focused Tree Inspections? Include a comparison of the benefits and drawbacks of ANSI A-300 and PG&E's	a) The minimum qualifications for an inspector performing the tree-risk assessment for the Focused Tree Inspection is a Tree Risk Assessment Qualification (TRAQ) through the International Society of Arboriculture (ISA). b) We will utilize the International Society of Arboriculture (ISA) Basic Tree Risk Assessment Form for the Focused Tree Inspections. The Basic Tree Risk Assessment Form is provided with	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
180	OEIS	002	OEIS_002	3	OEIS_002_Q3	On page 621, PG&E references its Company Emergency Response Plan (CERP). Provide an unredacted version of the CERP and all annexes.	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. a. Please see attachment "WMP-Discovery2023_DR_OEIS_002-Q003Atch01CONF.pdf" for a unredacted version of our CERP. Please see attachments "WMP-Discovery2023_DR_OEIS_002-Q003Atch02CONF.pdf" and "WMP-	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	3	N/A	8.4.1	Emergency Preparedness	Overview
181	OEIS	002	OEIS_002	4	OEIS_002_Q4	a.On page 567, PG&E references the weather stations deployed over their 70,000 square mile territory for monitoring conditions. i.Provide the instillation standard that all PG&E weather stations are installed to. Include height from ground, direction of cross-arm, and which side of the pole/tower they are installed on. b.On page 570, PG&E references the maintenance for their weather stations and calibrations	a. i. Please see the attachment "WMP-Discovery2023_DR_OEIS_002-Q004Atch01CONF.pdf" for the requested information. b. i. Please see the attachment "WMP-Discovery2023_DR_OEIS_002-Q004Atch01	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	2	N/A	8.3.2.1	Situational Awareness and Forecasting	Existing Systems, Technologies, and Procedures
182	OEIS	002	OEIS_002	5	OEIS_002_Q5	Please provide an Excel version of Table 7-4: Summary of Risk Reduction for Top Risk Circuit Segments from PG&E's 2023 WMP.	In reviewing this request, we discovered that some of the information in Table 7-4 is incorrect. We have corrected it in response to this discovery request. We will reach out to discuss this update and making corrections to the WMP pursuant to Energy Safety's Guidelines. Please see WMP attachment "WMP-Discovery2023_DR_OEIS_002-Q005Atch01.xlsx."	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	1	N/A	7.2.2.3	Wildfire Mitigation Strategy Development	Projected Risk Reduction on Highest-Risk Circuits Over the 3-Year WMP Cycle
183	OEIS	002	OEIS_002	6	OEIS_002_Q6	Under Section 8.1.2.8, PG&E only includes additional information for distribution protective devices. What program(s) does PG&E currently have for system automation equipment at the transmission level?	As indicated in Section 8.1.8.1.2 of the 2023-2025 WMP, on the transmission system, auto reclosing is disabled for the entire wildfire season when the FPI rating reaches R3 or greater. In addition, in Section 9.2.1, we explained how our Transmission Asset Health Specialist reviews the system to identify if there are low impact lines that do not meet our PSPS scoping criteria (e.g. Asset health, Vegetation Risk, Wildfire Consequence) but can be	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	0	N/A	8.1.2.9.1	Grid Design and System Hardening	T Line removal (in HFTD) - Transmission
184	OEIS	002	OEIS_002	7	OEIS_002_Q7	a.Provide a definition for PG&E's "Critical Pass Rate" for its asset inspection QC, as shown in Table PG&E-22-21-1. This should include criteria for what qualifies as "critical" including any risk thresholds, associated equipment-types, or other relevant determinations. b.Does "Critical Pass Rate" differ from the "QA Review HFTD Pass Rate" provided in Table RN-PG&E-22-08-05 in response to Critical Issue RN-PG&E-22-08 (f)? If not, describe how the two	a. "Critical Pass Rate" is the number of assets reviewed by QC that did not have a Critical Attribute (as defined by Asset Strategy) failure or miss divided by the number of assets reviewed by QC. This is shown as a percentage. 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. b. "Critical Pass Rate" does not differ from "QA Review HFTD Pass Rate." Critical attributes are	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--21 Asset Inspections Quality Assurance and Quality Control ACI PG&E-22--08 Better Application of Specific Lessons
185	OEIS	002	OEIS_002	8	OEIS_002_Q8	a.How many ignitions were evaluated via PG&E's EIA program in 2021, 2022, and 2023 (if applicable) respectively? b.When would PG&E perform an EIA? c.Provide an example of an ignition PG&E performed EIA for, including supporting documentation and reports as applicable.	a. We completed EIA evaluative actions for 118 ignitions in 2021; we established the EIA program in 2021 and the scope/breadth of these evaluations may vary. Under the EIA program, we completed 147 ignition evaluations in 2022, and 17 ignition evaluations year-to-date in 2023. b. As outlined in our Utility Procedure: RISK-6306P-02 Fire Incident Enhanced Ignition Analysis Procedure (first published in September 2022), ignitions with these conditions meet EIA criteria:	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	4	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--08 Better Application of Specific Lessons Learned from Utility-Caused Fires
186	OEIS	002	OEIS_002	9	OEIS_002_Q9	a.Provide the definitions for the EPSS Outage Types under Column J for the tab labeled "2022 EPSS Outage Data". b.What analysis has PG&E performed on EPSS-caused outages to determine which outages would have led to an ignition? c.What percentage of EPSS-caused outages since the establishment of the EPSS program	a. The table below defines each of the four (4) values appearing in column "J" of the spreadsheet PG&E provided. EPSS Outage Type FTS "Fast Trip Setting"; Post-Optimized Circuit Settings HLT "Hot Line Tag"; Pre-Optimized Circuit Settings	Colin Lang	4/13/2023	4/18/2023	4/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-32 – Updates on EPSS Reliability Study
187	OEIS	002	OEIS_002	10	OEIS_002_Q10	a.Provide an Excel sheet listing all work orders closed by PG&E in 2022 following the same format and information as Table 13 of the QDR, with the additional columns: i.Date the work order was closed ii.PG&E Priority (A, B, E, H, and F) iii.Whether or not the infraction qualified as an "Ignition-Risk HFTD/HFRA" tag	a. Please see the "Table 13 - Closed" tab in attachment "WMP Discovery2023_DR_OEIS_002-Q010Atch01.xlsx" for the requested information. Please note, this data was pulled on January 31, 2023. b. Please see the "Table 13 – Open" tab in attachment "WMP Discovery2023_DR_OEIS_002-Q010Atch01.xlsx" for the requested information.	Colin Lang	4/13/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_002.zip	1	N/A	8.1.7	Open Work Orders	N/A
188	TURN	005	TURN_005	1	TURN_005_Q1	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	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 HFTD. Before the Targeted 10K UG program, PG&E predominantly used the System Hardening (see attachment WMP-Discovery2023_DR_TURN_005-Q001Atch03) and Fire Rebuild Decision trees (see attachment WMP Discovery2023_DR_TURN_005-Q001Atch02) to scope work	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	3	N/A	8.1.2	Grid Design and System Hardening	ALL
189	TURN	005	TURN_005	2	TURN_005_Q2	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.	Not applicable. PG&E has a decision tree. Please see our response to TURN_005-Q001.	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	8.1.2	Grid Design and System Hardening	ALL
190	TURN	005	TURN_005	3	TURN_005_Q3	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 schedule risks associated with undergrounding compared to other alternatives. PG&E discusses those risks in its 2023-2025 WMP at pages 344-346. They were also discussed in PG&E's Revised 2021 WMP (version dated 6/30/21) at pages 600-601	During the field scoping process, the team reviews all high-impact dependencies that could extend the execution. During review, we evaluate alternative undergrounding routes to avoid such impacts, design decisions that could mitigate that risk, and the steps we can take to work with the applicable agencies to address potential scheduling and execution risk issues (e.g., permitting and land rights)	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	8.1.2	Grid Design and System Hardening	ALL

191	TURN	005	TURN_005	4	TURN_005_Q4	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 this determination varies by project, please describe the criteria that PG&E uses to decide whether PG&E undergrounds service connections in a given location.	Our 10,000-mile undergrounding program is focused on undergrounding higher-voltage primary distribution powerlines in areas of high fire risk. While there is a degree of risk anywhere there are energized overhead facilities, historically, we have observed more frequent ignitions and larger wildfires associated with the overhead primary distribution powerlines. This is compared to lower voltage secondary distribution lines, service connections	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	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_Q5	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 this determination varies by project, please describe the criteria that PG&E uses to decide whether PG&E undergrounds secondary lines in a given location.	Please see response to TURN_005-Q004, which includes our policy as it relates to secondary distribution lines.	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	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_Q6	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-8.1.2-2 on page 347), 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.	PG&E does not currently track the existing poles that will be removed by undergrounded circuits. The analysis would require manual review at the individual project level and would include: • Determining the poles that are to be removed • Determining the poles that will be topped • Determining the poles that are jointly owned and will remain after undergrounding	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	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_Q7	7.With respect to the values for 2023-2025 in the column for Estimated System Hardening Undergrounding Miles in Table PG&E-8.1.2-2 on page 347 of PG&E's 2023-2025 WMP: a.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; b.For the figures provided in response to subpart "a", please provide an estimated breakdown of	a. Based on subject matter expertise and a sample of completed projects, the estimated overhead to undergrounding conversion rate is 1.25 miles of underground line installed for every 1 mile of overhead primary line removed. Our target undergrounding miles for 2023-2026 is 2,100 miles. Using the estimated conversion rate, the overhead primary miles removed is projected to be approximately 1,680 miles.	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	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_Q8	8.With respect to the values for 2023-2025 in the column for Estimated Butte County Rebuild Miles in Table PG&E-8.1.2-2 on page 347 of PG&E's 2023-2025 WMP: a.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; b.For the figures provided in response to subpart "a", please provide an estimated breakdown of	a. As described in our GRC1, the estimated overhead to undergrounding conversion rate in the Butte Rebuild area is 1.57 miles of underground line installed for every 1 mile of overhead primary line removed. The 1.57 factor was based on relocated Community Rebuild overhead miles (2022-2025) and local topography. Our current estimate for Butte County undergrounding mileage for 2023-2026 is 175 miles. Using	Tom Long	4/13/2023	4/19/2023	4/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_005.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
196	CalPA	Set WMP-16	CalPA_Set WMP-16	1	CalPA_Set WMP-16_Q1	Regarding PG&E's SCADA Underground (UG) Switches: a) Please explain PG&E's operating procedure for operating a SCADA UG switch to energize and de-energize a circuit or circuit segment. b) Please provide PG&E's written procedures or other documentation related to your response to part (a).	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. a) For distribution operations operating procedures, SCADA UG switch when de energizing is an open command in RT SCADA with load read on SCADA devices before and after de-energizing. Energizing with a SCADA UG switch will have source side protective device reclosing relay out	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	2	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
197	CalPA	Set WMP-16	CalPA_Set WMP-16	2	CalPA_Set WMP-16_Q2	Regarding PG&E's Load Break Elbows: a) Please explain PG&E's operating procedure for operating a load break elbow in a vault to energize or de-energize a circuit or circuit segment. b) Please provide PG&E's written procedures or other documentation related to your response to part (a).	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. a) For distribution operations operating procedures, if de-energizing or energizing from Load break elbows that are not protected by fuses on the source side, then reclosing a relay is first cut out or verified cut out on the source side protective device as well as ground relay verified cut in	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.10.3	Grid Design and System Hardening	Motor Switch Operator Switch Replacement
198	CalPA	Set WMP-16	CalPA_Set WMP-16	3	CalPA_Set WMP-16_Q3	Regarding PG&E's Junction Boxes: a) Please explain in detail PG&E's operating procedure for operating a junction box in a vault to energize or de-energize a circuit or circuit segment. b) Please provide PG&E's written procedures or other documentation related to your response to part (a).	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. a) For distribution operations operating procedures, junction boxes my contain either Load Break elbows or dead break elbows. For Load break operations, see the responses to question 2 of this data request set. Dead Break elbows cannot be used to energize or de-energize circuit	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.10	Grid Design and System Hardening	Other Grid Topology Improvements to Minimize Risk of Ignitions
199	CalPA	Set WMP-16	CalPA_Set WMP-16	4	CalPA_Set WMP-16_Q4	Please explain PG&E's selection criteria for where to install the following equipment on undesrand circuits: a) SCADA UG switches b) Junction boxes c) Load break elbows	a) SCADA underground switches are typically only installed at mainline intersections. The 3-way SCADA switch can have up to two positions enabled with SCADA due to the space constraints on the top of the switch. Additionally, a communications signal to enable SCADA is not always available at the location where we would otherwise like to install a SCADA-enabled switch. While SCADA-enabled switches are preferred in these locations, mainline intersections where	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2	Grid Design and System Hardening	Other Grid Topology Improvements to Minimize Risk of Ignitions
200	CalPA	Set WMP-16	CalPA_Set WMP-16	5	CalPA_Set WMP-16_Q5	Please explain PG&E's selection criteria for where to install the following equipment on underground circuits a) Pad-mounted transformers b) Subsurface transformers	a) PG&E's standard is to install pad-mounted transformers on underground circuits where transformers are need. See the response to subpart b for when a pad-mount may not be used in favor of a subsurface transformers [For residential customers, we prefer to install pad-mounted transformers in the street franchise, easement, or right-of-way areas for multiple customers or on the customer's property for a single service. For non-residential customers, the preference is to	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
201	CalPA	Set WMP-16	CalPA_Set WMP-16	6	CalPA_Set WMP-16_Q6	For each of the undergrounding projects that PG&E has planned for 2023, please answer the following questions on each project: a) How many SCADA underground switches will be installed? b) How many overhead switches will be removed? c) How many tie switches to adjacent circuits currently exist?	PG&E objects to this request as overbroad and unduly burdensome. We do not maintain the requested information in a manner that allows it to be aggregated without a manual review of each project's engineering and construction documentation. Manually collecting the data across hundreds of projects would require significant time and resources and the development of multiple processes to ensure data accuracy. If you would like to discuss this	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
201	CalPA	Set WMP-16	CalPA_Set WMP-16	6 SUPP	CalPA_Set WMP-16_Q6 SUPP	For each of the undergrounding projects that PG&E has planned for 2023, please answer the following questions on each project: a) How many SCADA underground switches will be installed? b) How many overhead switches will be removed? c) How many tie switches to adjacent circuits currently exist?	PG&E objects to this request as overbroad and unduly burdensome. We do not maintain the requested information in a manner that allows it to be aggregated without a manual review of each project's engineering and construction documentation. Manually collecting the data across hundreds of projects would require significant time and resources and the development of multiple processes to ensure data accuracy. If you would like to discuss this	Holly Wehrman	5/2/2023	5/1/2023		https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
202	CalPA	Set WMP-16	CalPA_Set WMP-16	7	CalPA_Set WMP-16_Q7	For each of the undergrounding projects that PG&E has planned for 2024, please answer the following questions on each project: a) How many SCADA underground switches will be installed in each circuit. b) How many overhead switches will be removed? c) How many tie switches to adjacent circuits currently exist?	PG&E objects to this request as overbroad and unduly burdensome. We do not maintain the requested information in a manner that allows it to be aggregated without a manual review of each project's engineering and construction documentation. Manually collecting the data across hundreds of projects would require significant time and resources and the development of multiple processes to ensure data accuracy. If you would like to discuss this	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
203	CalPA	Set WMP-16	CalPA_Set WMP-16	8	CalPA_Set WMP-16_Q8	8.1.2.3 - Distribution Pole Replacements and Reinforcements Page 352 of PG&E's WMP states, "Pole replacement and reinforcement reduce outage likelihood which decreases the chances of the area being impacted in future PSPS events. These programs also support public and employee safety because they improve the overall health of the distribution poles."	a) The average, median, minimum and maximum age of poles (in years) replaced in 2020, 2021, and 2022 are as follows: 2020 2021 2022	Holly Wehrman	4/18/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
204	CalPA	Set WMP-16	CalPA_Set WMP-16	9	CalPA_Set WMP-16_Q9	8.1.2.10 - Other Grid Topology Improvements to Minimize Risk of Ignitions 8.1.2.10.1 -Downed Conductor Detection Devices Pg 374-375 of PG&E's WMP states, "Installation of DCD on existing, new, and retrofitted recloser controllers is expected 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	a) While EPSS has proven to be highly effective in lowering the incident energy during traditional faults and associated potential ignitions, reliable detection, and de energization of high impedance fault conditions continues to be a gap that we are working to close. As part of EPSS, we deployed an expansive use of low set, non directional ground fast/sensitive ground protection, commonly referred to as Sensitive Ground Fault (SGF) to aid in this effort.	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	0	N/A	8.1.2.10	Grid Design and System Hardening	Other Grid Topology Improvements to Minimize Risk of Ignitions
205	CalPA	Set WMP-16	CalPA_Set WMP-16	10	CalPA_Set WMP-16_Q10	Please provide an Excel sheet listing each circuit (in its own row) that had circuit outages that occurred from 2020 to 2022 in any HFTD area. A circuit outage is when the Substation 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):	Please see "WMP-Discovery2023_DR_CalAdvocates_016-Q010Atch01.xlsx." for a list of sustained outages in a HFTD in 2020 through 2022. The undergrounding information in response to subsections G and H is based on the undergrounding workplan submitted in the 2023-2025 WMP. a) See Column C.	Holly Wehrman	4/18/2023	4/21/2023	4/21/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	1	N/A	QDR	N/A	N/A
206	CalPA	Set WMP-16	CalPA_Set WMP-16	11	CalPA_Set WMP-16_Q11	Regarding PG&E's Average Peak Load for UG Projects. For the purposes of this question, if any section of a circuit was or will be undergrounded as part of an OH to UG conversion project, the circuit should be included: a) Provide the average peak load to circuit ampacity in percent from 2017 to 2019 for the circuits with OH to UG conversion completed in 2020.	Please see "WMP-Discovery2023_DR_CalAdvocates_016-Q011Atch01.xlsx" for the requested information. The attachment includes a separate worksheet for each subsection to this response and is labeled accordingly (a, b, c, etc.). Please note that the circuits included in this response for planned work (relevant to subsections d - o) are based on the undergrounding workplan submitted in the 2023-2025 WMP (based on our	Holly Wehrman	4/18/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_016.zip	1	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
207	MGRA	Data Request No. 2	MGRA_Data Request No. 2	1	MGRA_Data Request No. 2_Q1	With regard to PG&E's response to CalPA_Set WMP-11_Q14: PG&E states that one of the significant changes to the grid required for REFCL is "The replacement of old, direct bury underground cable". Please explain the incompatibility of "old, direct bury underground cable" with REFCL.	During the demonstration project, we reviewed primary distribution equipment insulation ratings. During REFCL operation, line-to-ground voltage increases by 1.7 times, so the equipment must be able to withstand this increased voltage. A long run of old (1970 build), direct bury underground cable was identified during the review. The cable was tested for concentric neutral resistance and tan delta. The cable sections did not pass the tests and would	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
208	MGRA	Data Request No. 2	MGRA_Data Request No. 2	2	MGRA_Data Request No. 2_Q2	With regard to PG&E's response to CalPA_Set WMP-11_Q14: PG&E states that one of the significant changes to the grid required for REFCL is "The replacement of old, direct bury underground cable": Does PG&E have any recently undergrounded segments that are also "direct bury"? If so would these be incompatible with REFCL?	Direct bury of underground cable, meaning laying the cable directly in a dirt trench and not inside a conduit, is not a standard, approved design for our underground electric distribution system at this point in time. As such, no, we have not recently undergrounded any electric distribution segments via direct bury. The direct bury underground cable design itself would not be incompatible with REFCL, however, many direct bury underground cable installations are old and the cable	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
209	MGRA	Data Request No. 2	MGRA_Data Request No. 2	3	MGRA_Data Request No. 2_Q3	With regard to PG&E's response to CalPA_Set WMP-11_Q14: PG&E states that one of the significant changes to the grid required for REFCL is "The replacement of old, direct bury underground cable": Does PG&E's future undergrounding plans include "direct bury" and if so would that make these segments incompatible with REFCL?	No, PG&E's undergrounding plans include cable in conduit with standard voltage ratings exceeding REFCL operating voltage.	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	0	N/A	8.1.8.1.3.1	Grid Operations and Procedures	Rapid Earth Fault Current Limiter
210	MGRA	Data Request No. 2	MGRA_Data Request No. 2	4	MGRA_Data Request No. 2_Q4	Please provide non-confidential versions of the following documents: WMP-Discovery2023_DR_OEIS_001-Q007Atch02CONF.pdf	Please see "WMP-Discovery2023_DR_OEIS_001-Q007Atch02_Redacted.pdf."	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	1	N/A	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
211	MGRA	Data Request No. 2	MGRA_Data Request No. 2	5	MGRA_Data Request No. 2_Q5	Please provide non-confidential versions of the following documents: WMP-Discovery2023_DR_OEIS_001-Q007Atch03CONF.pdf	Please see "WMP-Discovery2023_DR_OEIS_001-Q007Atch03_Redacted.pdf."	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	1	N/A	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
212	MGRA	Data Request No. 2	MGRA_Data Request No. 2	6	MGRA_Data Request No. 2_Q6	Please provide non-confidential versions of the following documents: WMP-Discovery2023_DR_OEIS_001-Q007Atch04CONF.pdf	Please see "WMP-Discovery2023_DR_OEIS_001-Q007Atch04_Redacted.pdf."	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	1	N/A	Appendix B	Supporting Documentation for Risk Methodology and Assessment Definitions	Detailed Model Documentation
213	MGRA	Data Request No. 2	MGRA_Data Request No. 2	7	MGRA_Data Request No. 2_Q7	Please provide a GIS file of 2022 outages occurring on circuits where EPSS was enabled.	The method of providing a geospatial file with the location of 2022 outages on EPSS enabled circuits would require the disclosure of device location and therefore the geospatial representation of outage location that would be provided in this response to this data 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 requesting party	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
214	MGRA	Data Request No. 2	MGRA_Data Request No. 2	8	MGRA_Data Request No. 2_Q8	Please provide a GIS file of 2022 ignitions occurring on circuits where EPSS was enabled.	Please see "WMP-Discovery2023_DR_MGRA_002-Q008Atch01.kmz."	Joseph Mitchell	4/20/2023	4/25/2023	4/25/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_002.zip	1	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
215	OEIS	003	OEIS_003	1	OEIS_003_Q1	Regarding Activities that Exceed GO 166 On page 624, PG&E states it "is currently working with internal and external stakeholders, including CalOES, to develop and implement activities that exceed compliance requirements in CPUC General Order (GO) 166, Standards for Operation, Reliability, and Safety During	CPUC General Order 166 Standard 1A, Internal Coordination, requires California electric utilities to provide as part of their emergency plans a description of internal coordination functions how they gather, process, and disseminate information within their service areas, set priorities, allocate resources, and coordinate activities to restore service. GO 166 Standard 1D, External and Government Coordination, requires California electric utilities to address as part of their	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	8.4.1.1	Emergency Preparedness	Objectives
216	OEIS	003	OEIS_003	2	OEIS_003_Q2	Regarding Emergency Preparedness Plans Beyond Stated Objectives On page 624, PG&E states that there are, "current plans for wildfire-related activities beyond the objectives in Table 8-33 and Table 8-34." a. List and describe the "plans…beyond the objectives."	a. The table below provides our current plans beyond the objectives in Table 8-33 and Table 8-34 of our WMP. • Cybersecurity (NERC CIP-008 compliance), EMER-3102M • Disaster Rebuild, EMER-3012M • Extreme Weather Annex (EMER-3108M)	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	8.4.1.1	Emergency Preparedness	Objectives
217	OEIS	003	OEIS_003	3	OEIS_003_Q3	Regarding After Action Reports a. Provide After Action Reports (or similar post-event reports) for each wildfire-related emergency in 2021 and 2022. b. Does PG&E have internal After Action Reports (or similar post event reports) for both actual	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. a. We interpret "wildfire-related emergency" as wildfire events for which our Emergency Operations Center was activated. Please reference "WMP Discovery2023_DR_OEIS_003-Q003Atch01CONF.pdf" for the After Action Report for the wildfire-related emergency that	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	4	N/A	8.4	Emergency Preparedness	N/A
218	OEIS	003	OEIS_003	4	OEIS_003_Q4	Regarding Support for Medical Baseline Customers a. How does PG&E support Medical Baseline (MBL) customers during wildfire emergencies?	PG&E evaluates the scope of the wildfire emergency and partners with Community Based Organizations (CBOs) to activate services based on the wildfire footprint and estimated customer impact. Two contact centers are activated during emergencies to provide 24/7 emergency live agent service for customers to report emergencies and obtain information on support resources. PG&E's partnership with 211 connects customers identified as Access and Functional Need	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	8.4.6	Emergency Preparedness	Customer Support in Wildfire and PSPS Emergencies
219	OEIS	003	OEIS_003	5	OEIS_003_Q5	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.	Please see attachment "WMP-Discovery2023_DR_OEIS_003-Q005Atch01CONF.zip" for the following survey questionnaires and executive summaries for surveys regarding outreach effectiveness and general customer awareness of PSPS: • 2021 PSPS Pre-season Questionnaire and Executive Summaries; • 2021 PSPS Post-Season Questionnaire and Executive Summaries;	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	1	N/A	8.4.4	Emergency Preparedness	Public Emergency Communication Strategy

220	OEIS	003	OEIS_003	6	OEIS_003_Q6	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: i. Name of the AOC	a. Please reference "WMP-Discovery2023_DR_OEIS_003-Q006Atch01.xlsx" and "WMP-Discovery2023_DR_OEIS_003-Q006Atch02.zip"1 for the requested information. Specifically for Overall Utility Risk, Ignition Risk, and PSPS Risk, these are typically presented in terms of circuit segments or circuit protection zones. The AOC polygons do not always align with CPZ segments so circuit segments can be partially included or completely included	Colin Lang	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	3	N/A	8.2	Vegetation Management and Inspections	N/A
221	OEIS	003	OEIS_003	7	OEIS_003_Q7	Regarding Focused Tree Inspections a. During the decision process to discontinue use of the Tree Assessment Tool (TAT) and adopt the ISA's Basic Tree Risk Assessment Form (ISA form), did PG&E consider incorporating elements from the ISA's form into the TAT? b. Is PG&E collecting a digital record of each ISA form generated by inspectors, in OneVM or	a. Yes, as part of normal practice, we considered enhancing the TAT by incorporating additional elements of the ISA Form in 2022. b. At this time, the TRAQ form will 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 arborists and the TRAQ form will be used as a guide. c. We will utilizing the TRAQ form for tree risk assessments which considers local weather	Colin Lang	4/21/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	1	N/A	8.2	Vegetation Management and Inspections	N/A
222	OEIS	003	OEIS_003	8	OEIS_003_Q8	Regarding Confidential Stakeholder Data Requests a. Provide PG&E's confidential responses and attachments to the following Data Requests: i. WMP-Discovery2023_CalAdvocates_002-Q001 ii. WMP-Discovery2023_CalAdvocates_006-Q007	The confidential material is being provided pursuant to the accompanying confidentiality declaration. Please see requested attachments: i. WMP-Discovery2023_DR_CalAdvocates_002-Q001.pdf WMP-Discovery2023_DR_CalAdvocates_002-Q001Atch01CONF.pdf	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	7	Wildfire Mitigation Strategy Development	N/A
223	OEIS	003	OEIS_003	9	OEIS_003_Q9	Regarding PG&E's Asset Inspection Program a. Provide the inspection checklists used for both PG&E's patrols and detailed inspections. b. If PG&E tailors its inspections specifically to inspect wildfire risk specific items, identify which items within the checklist this applies to, particularly if such differs from standard GO 95	THE CONFIDENTIAL MATERIAL IS BEING PROVIDED PURSUANT TO THE ACCOMPANYING CONFIDENTIALITY DECLARATION. Distribution Inspection Program a) Please see attachment "WMP-Discovery2023_DR_OEIS_003-Q009Atch01.xlsx" for the inspection checklist used by our detailed distribution inspections. Please note that no checklist is	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	5	N/A	8.1.3	Asset Inspections	N/A
224	OEIS	003	OEIS_003	10	OEIS_003_Q10	Regarding PG&E's Asset Inventory a. Provide a list of all fields that PG&E's asset inventory captures (i.e. equipment, equipment type, age, installation date). b. Provide a list of all types of equipment captured within PG&E's asset inventory. c. Provide a percentage in which PG&E is missing data for each data field listed in part (a) within	As outlined in Section 8.1.5 Asset Management and Inspection Enterprise System(s) of PG&E's 2023-2025 WMP, PG&E 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	Colin Lang	4/21/2023	5/10/2023	5/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	2	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
225	OEIS	003	OEIS_003	11	OEIS_003_Q11	Regarding PG&E's Response to P-WMP_2023-PG&E-002-Q07 a. PG&E 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 PG&E uses to determine whether something is a	a. i. For distribution, a critical attribute is any question that identifies a condition that could lead to either an ignition point or wire down situation that could result in a potential fire ignition. The determination of critical attribute was created based on discussions with multiple stakeholders/SMEs from Asset Strategy, Standards, and System Inspections. The finalized list	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--21 Asset Inspections Quality Assurance and Quality Control ACI PG&E-22--08 Better Application of Specific Lessons
226	OEIS	003	OEIS_003	12	OEIS_003_Q12	Regarding PG&E's Response to P-WMP_2023-PG&E-002-Q09 a. PG&E states that it is still performing targeted equipment repairs relating to EPSS. Is this a program separate from that described within Section 8.1.7 of its WMP? If so, provide the following: i. Description and procedures in which PG&E uses to decide when and where it will perform EPSS-	The confidential material is being provided pursuant to the accompanying confidentiality declaration. a. (i) (ii) (iii) EPSS targeted equipment repairs are incorporated into the Open Work Orders Tag program as described in Section 8.1.7 of the WMP. EPSS targeted equipment repairs can be either an EC, ER, or CE Notification. Notifications with a potential reliability impact on EPSS	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-32 – Updates on EPSS Reliability Study
227	OEIS	003	OEIS_003	13	OEIS_003_Q13	Regarding PG&E's Response to P-WMP_2023-PG&E-002-Q08 a. Provide all Enhanced Ignition analysis (EIA) reports completed for instances in which the qualifier was an EPSS protected facility.a. Provide all Enhanced Ignition analysis (EIA) reports completed for instances in which the qualifier was an EPSS protected facility.	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. In response to Question 8 of Energy Safety's Second Data Request, subpart (d), PG&E provided a list of ignitions that were evaluated/partially evaluated in the Enhanced Ignition Analysis (EIA) program and listed why each ignition event qualified to be included in the program. The program is	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22--08 Better Application of Specific Lessons Learned from Utility-Caused Fires
228	OEIS	003	OEIS_003	14	OEIS_003_Q14	Regarding PG&E's Fault Ramer Replacements a. Provide the numbers of fault tamers PG&E has replaced by year since 2020. b. Provide PG&E's targets for fault tamer replacements in 2023 and 2024, as applicable. c. Provide the number of fault tamer devices within PG&E's HFTD. d. Provide the number of fault tamer devices identified as needing replacement within PG&E's	a. We interpret "replaced" to mean a proactive changing of an in-service fault tamer fuse that had not failed or operated normally due to a fault. In July 2021, in response to our 2020 causal evaluation of 4 apparent fault tamer failures, we published a bulletin that requires replacement of the entire fuse after a fault (no re use of the backup limiter portion of the fuse). We replaced fuses at seven locations associated with recent transformer changeouts in high	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	N/A	N/A	N/A
229	OEIS	003	OEIS_003	15	OEIS_003_Q15	Regarding PG&E's V4 of its Wildfire Distribution Risk Model (WDRM) a. What is PG&E's status for review and approval of V4? b. When does PG&E intend to use V4 output to influence its undergrounding plan? Include discussion on details of how this may affect PG&E's undergrounding plan	a. The WDRM v4 is currently in review and validation prior to an anticipated approval in Q2 2023. b. The WDRM v4 will be available as an input to the underground program development after approval in Q2 2023. Beyond the response provided to ACI PG&E-22-34, the impact to the undergrounding program—i.e., how it will be applied and which years it will be used to plan—has not yet been determined	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	6.2.1	Risk Methodology and Assessment	Risk and Risk Component Identification
230	OEIS	003	OEIS_003	16	OEIS_003_Q16	Regarding PG&E's response to OEIS Data Request 2 Question 5 Attachment 1 a. How did PG&E determine a mitigation effectiveness of 11.8% for down conductor detection (DCD)? b. In Table 8-4, PG&E has included 2023, 2024 and 2025 targets for DCD. Additionally, in	a) The mitigation effectiveness for down conductor detection was based on the incremental benefit to EPSS. The mitigation effectiveness was determined by reviewing the ignitions that occurred during EPSS enablement periods. Out of the 30 ignitions reviewed, 14 of them are high impedance faults. Of the 14 ignitions, we estimate that 25% can be prevented based on subject matter expert review. That review considered the fault characteristics relative to DCD's ability to	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	8.1.2.10	Grid Design and System Hardening	Downed Conductor Detection Devices
231	OEIS	003	OEIS_003	17	OEIS_003_Q17	Regarding undefined terms in 8.4.6 PG&E discusses "red tagged" customers, "impacted" communities, and "impacted" customers (including cities, counties, and tribal governments) in Section 8.4.6; however, definitions of such terms are not provided	Red Tag: For natural disasters, including wildfires, in which the Governor or POTUS declares a State of Emergency, the official definition comes from D.19-07-015 (page 16) "…when a disaster(s) has resulted in the destruction or damage of a structure, such that utility service is disrupted voluntarily or involuntarily due to safety concerns or reconstruction activities to address the damage from a proclaimed state of emergency event…"	Colin Lang	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_003.zip	0	N/A	8.4.6	Emergency Preparedness	Customer Support in Wildfire and PSPS Emergencies
232	CalPA	Set WMP-17	CalPA_Set WMP-17	1	CalPA_Set WMP-17_Q1	<BEGIN CONFIDENTIAL>> Table 1 – Projects not pursued for Undergrounding in first 2100 miles PG&E's WDRM V3 ranks circuit protection zones (CPZs) based on risk measured across 17 risk	Upon review, PG&E respectfully finds that the CPZ mileages presented in Table 1 are incorrect. As a result of the mileage errors in the Table, the Calculated Risk/Mile CONFIDENTIAL – Provided Pursuant to Confidentiality Declaration ("WMP-Discovery2023_DR_CalAdvocates_017_Confidentiality Declaration.pdf") WMP-Discovery2023_DR_CalAdvocates_017-Q001CONF Page 3	Matthew Taul	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_017.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
233	CalPA	Set WMP-17	CalPA_Set WMP-17	2	CalPA_Set WMP-17_Q2	In general, identify all the factors PG&E considers when deciding that a CPZ with a large average risk profile or large total risk in WDRM V3 should not be prioritized in PG&E's 2023 WMP project selection.	We are selecting locations in 2022 and 2023 based on the Wildfire Feasibility Effectiveness (WFE) analysis, which leveraged WDRM V3 risk data, to prioritize for project selection. As part of the WFE analysis, for operational efficiency, individual Circuit Protection Zones (CPZs) were bundled together for project selection and design. Once bundled together with adjacent CPZs that are also identified for targeted undergrounding	Matthew Taul	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_017.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
234	CalPA	Set WMP-17	CalPA_Set WMP-17	3	CalPA_Set WMP-17_Q3	<<BEGIN CONFIDENTIAL>> In Table 2 above, select CPZs that PG&E has decided to pursue Undergrounding in its first 2100 miles of UG projects6 are compared by: • Cumulative risk score for the CPZ in WDRM V3	a) Upon review, we respectfully find that the CPZ mileages presented in Table 2 are incorrect. As a result of the mileage errors in the Table, the Calculated Risk/Mile figures are incorrect as well. We also note that we do not use the term "cumulative risk." We use the term "composite risk" and interpret this question as involving "composite risk" scores. Any difference between these two terms is not material to our response	Matthew Taul	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_017.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
235	CalPA	Set WMP-17	CalPA_Set WMP-17	4	CalPA_Set WMP-17_Q4	In general, identify all the factors PG&E considers when deciding that a CPZ with small total risk profiles and small average risk profiles in WDRM V3 should be prioritized in PG&E's 2023 WMP project selection.	We are selecting locations in 2022 and 2023 based on the Wildfire Feasibility Effectiveness (WFE) analysis, which leveraged WDRM V3 risk data, to prioritize for project selection. As part of the WFE analysis, for operational efficiency, individual Circuit Protection Zones (CPZs) were bundled together for project selection and design. Once bundled together with adjacent CPZs that are also identified for targeted undergrounding	Matthew Taul	4/21/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_017.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
236	TURN	006	TURN_006	1	TURN_006_Q1	1. Regarding the System Hardening Decision Tree provided as Attachment 3 to the response to TURN data request 5-1, please define the following acronyms used in the Decision Tree: a. PSS b. FSD c. EASOP	a. PSS = Public Safety Specialist. PG&E PSS team members with extensive, local wildfire operations experience. Many had a previous career with CAL FIRE or other fire agencies. b. FSD = Field Scoping Desktop Meeting. Meeting to scope potential undergrounding project sites held in office as opposed to in the field. c. EASOP = Economic Analysis Software Program. Program used by PG&E to evaluate project	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_006.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
237	TURN	006	TURN_006	2	TURN_006_Q2	Regarding the System Hardening Decision Tree provided as Attachment 3 to the response to TURN data request 5-1 and discussed in that response: a. Does PG&E intend to use this Decision Tree for future projects during the 2023-2025 period for selecting which system hardening mitigation to usefor a given location? b. If the answer to "a" is anything other than an unequivocal "no," please explain each and every	a) No. The System Hardening Decision Tree was used to scope base system hardening projects in the workplan from 2023-2026 that were selected using the WDRM, version 2. Much of this work was initiated for scoping prior to the 10K UG program announcement in late 2021. This System Hardening Decision Tree is not and will not be used for newly scoped work. b) N/A	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_006.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
238	TURN	006	TURN_006	3	TURN_006_Q3	Regarding the Undergrounding Decision Tree provided as Attachment 1 to the response to TURN data request 5-1 and discussed in that response: a. Please provide a time range in months for each of the "Key Phases" listed in the box in the lower left corner. b. Please explain how PG&E defines the words "infeasible," as used in the text of the response	a) Circuit Segment Risk Ranking – The WDRM risk model is the first step in identifying the list of circuit segments where wildfire risk is the highest. This data is updated roughly on an annual basis. Circuit Selection Process – The inputs to the feasibility score, bundling methodology following the previous year's lessons learned, and new inputs are developed in parallel, but require multiple reviews of the analysis and ultimate approval. This can take 2-3 months, but the first discussions	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_006.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
239	TURN	006	TURN_006	4	TURN_006_Q4	Regarding the Fire Rebuild Decision Tree provided as Attachment 2 to the response to TURN data request 5-1 and discussed in that response: a. Please define the following acronyms used in the Decision Tree: PIH, EASOP, OEC, DG, SG b. Does PG&E intend to use this Decision Tree for future fire rebuild projects during the 2023-2025 period for selecting which system hardening mitigation to use for a given location?	a) PIH – Pre-installed Interconnection Hub – In this context this refers to a tie-in point to facilitate generation connection to serve customers on a radially fed circuit with no available field-side operational ties (AKA "back-ties"). EASOP – Economic Analysis Software Program – Program used by PG&E to evaluate project economics. A OEC – Operations Emergency Center – Regional operation center activated during	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_006.zip	0	N/A	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_Q5	Regarding the response to TURN data request 5-4, please explain the following terms used in the last paragraph of that response: a. Gray services b. Tree-connects c. "Breakaway" connectors	a) Gray Services – An older type of insulated service aerial conductor that is more susceptible to water ingress and deterioration. b) Tree-connects – In this context, a service or secondary wire that is tied / connected directly to trees instead of poles. c) Break-away connectors – A connector system, primarily used at the service pole, that is	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_006.zip	0	N/A	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_Q6	Regarding the response to TURN data request 5-6: a. Please explain what is meant by the word "topped" in the phrase: "Determining the poles that will be topped." b. Is PG&E unable to offer even a rough approximation of the percentage of existing poles in the affected distribution circuits -- including poles supporting primary lines, secondary lines and	a. When the primary conductor is removed and only communication wire remains, the top of the pole above the comms will be removed/cut off to leave only the height of the pole necessary to support the remaining connections. b. No, PG&E is not able to offer a rough approximation that is reasonably accurate of the percentage of existing poles on the impacted distribution circuits that will be removed as part of	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_006.zip	0	N/A	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_Q1	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: a. Please explain how, if at all, either or both of Simplified Wildfire Risk Spend Efficiency (SWRSE) and Wildfire Feasibility Efficiency (WFE) values (discussed on p. 968 of the WMP (R1)) were used in developing this workplan.	The confidential attachment is being provided pursuant to a signed NDA with PG&E. The circuits listed in Table 7-2 are the same circuits listed in Table 7-4 where additional detail is provided. a. As described in ACI 22-34, PG&E used the SWRSE and WFE to identify where we could most efficiently reduce risk at specific locations. We selected the roughly 8,100 OH miles with the	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_007.zip	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_Q2	Regarding Table 7-2 in the WMP: a. TURN understands from Table 6-5 that the Overall Risk Score values in Table 7-2 are the sum of Total Ignition Risk Score and the Total PSPS Risk Score. Please explain how these input values to the Overall Risk Score column were calculated. Please include in the explanation the relevant mathematical equation(s)	a. The Overall Risk Score is calculated by the calibration of the Wildfire Risk and PSPS Risk scores to the overall Enterprise Risk Model in the form of Multi□Attribute Value Function (MAVF) units. This is shown in Section 7.2.2.2: = (, ,)+ (,) ( )=(23,082 +772 +14)+(2170)=26,038	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_007.zip	1	N/A	7.1.3	Wildfire Mitigation Strategy Development	Risk-Informed Prioritization
244	TURN	007	TURN_007	3	TURN_007_Q3	Regarding the System Hardening Workplan provided as Attachment 1 to the response to TURN data request 2-2 (which in turn asked for a response provided to Cal Advocates): a. The first tab in this Excel workbook is named "SH Workplan_2023-2026_Conf", which suggests that this response to Cal Advocates was taken from a document that also included the years 2025 and 2026. Please provide the most up-to-date version of this workbook for the period	The confidential attachment is being provided pursuant to a signed NDA with PG&E. a. Please refer to attachment "WMP-Discovery2023_DR_TURN_007-Q003Atch01CONF.xlsx" which is the System Hardening workplan prepared for the 2023-2026 WMP (plan dated January 3, 2023). Please see columns AH-AK and AL-AO that includes the 2025 and 2026 forecasted miles, respectively.	Tom Long	4/21/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_007.zip	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_Q4	Regarding Attachment 2023-03-27_PGE_2023_WMP_R1_Section 6.4.2_Atch01, which is referenced on page 195, fn. 77 of the WMP (R1): a. Please provide a version of this Excel workbook that includes the same information for all of PG&E's HFTD circuit segments, or as many of those segments for which PG&E has such information.	a) Please see attachment WMP-Discovery2023_DR_TURN_007-Q002Atch1.xlsb. Two additional columns N:O were added to this 'TopRisk_Table' tab and the rows were extended to capture applicable circuit segments. Please note, line items outside of the top 5% risk circuit segments do not have same level of detailed review given the limited time to respond to this request.	Tom Long	4/21/2023	4/26/2023	4/26/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_007.zip	0	N/A	6.4.2	Risk Methodology and Assessment	Top Risk-Contributing Circuits/Segments
246	CalPA	Set WMP-18	CalPA_Set WMP-18	1	CalPA_Set WMP-18_Q1	PG&E states in response to Question 1(a) of CalAdvocates-PGE-2023WMP-15: Vegetation Management for Operational Mitigation (VMOM) will be primarily focused in HFTD and HFRA. There are instances where a circuit segment may cross in or out of HFTD/HFRA and VMOM would complete work on the whole circuit segment including the areas outside HFTD/HFRA. Focused Tree Inspections are planned for HFTD areas in the plan developed for	a. No, but the following clarifications are provided to better inform an accurate interpretation. Most of HFRA overlaps with HFTD as HFRA refinements utilized HFTD as the base map for evaluating areas to add or remove based on identified risk, risk misidentification, or false-precision associated with HFTD boundaries. AOCs prioritized for execution are dominantly in HFTD but AOC are based on polygons and the	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
247	CalPA	Set WMP-18	CalPA_Set WMP-18	2	CalPA_Set WMP-18_Q2	PG&E states in response to Question 3 of CalAdvocates-PGE-2023WMP-15 that "PG&E intends to track trees identified for work under VMOM and FTI using the OneVM tool." Please provide the following regarding the OneVM tool: a) Its purpose(s) b) How the tool works (i.e. what mechanisms or procedures it will use to achieve outputs)	a) The purpose of the One VM tool is to provide map-based work execution, monitoring, and validation through a single software platform that incorporates VM work management systems into one. With increased integration between our databases and data, additional visibility of what work is being performed at what times could be achieved to reduce the risk of overlapping programs, reduce potential of disruption to our customers, and enable better risk-informed planning and	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
248	CalPA	Set WMP-18	CalPA_Set WMP-18	3	CalPA_Set WMP-18_Q3	PG&E states in its response to Question 5(a)(i) of CalAdvocates-PGE-2023WMP-15: "VM EPSS-enabled outage data was used to determine both a planned unit forecast and identify CPZs where EPSS VM Outages took place." Please explain what "planned unit forecast" refers to in the above instance.	'Planned unit forecast' refers to an estimate of the number of trees that may be worked under the program. The word 'forecast' is used because the exact number of trees is unknown until inspection has occurred.	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
249	CalPA	Set WMP-18	CalPA_Set WMP-18	4	CalPA_Set WMP-18_Q4	PG&E states in its response to Question 7(a) of CalAdvocates-PGE-2023WMP-15 that its forecasted 9-year pace of work for its Tree Inventory Program "was provided for the first three years of the program with intent to ramp up annual pace. 9 years is a starting point to plan the pace of work completion however, the lessons learned will inform the completion timing." a) Please explain your reasoning for using nine years as a "starting point"	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 formulated, it was estimated that approximately 350,000 trees would remain at	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory

250	CalPA	Set WMP-18	CalPA_Set WMP-18	5	CalPA_Set WMP-18_Q5	In response to question 19(b)(iii) of CalAdvocates-PGE-2023WMP-15, PG&E states: The difference [in projected vegetation management costs] of $24,861,000 between 2023 and 2024 is due to several factors, this is how PG&E will achieve this reduction; (1) Transitioning from EVM to three new programs; (2) reducing the amount of Routine VM work conducted each year commensurate with the amount of undergrounding miles completed; and (3) reducing unit costs	a-b) Year Number of Undergrounding Miles to be Completed	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.5.2	Vegetation Management and Inspections	Quality Control
250	CalPA	Set WMP-18	CalPA_Set WMP-18	5 SUPP	CalPA_Set WMP-18_Q5 SUPP	In response to question 19(b)(iii) of CalAdvocates-PGE-2023WMP-15, PG&E states: The difference [in projected vegetation management costs] of $24,861,000 between 2023 and 2024 is due to several factors, this is how PG&E will achieve this reduction; (1) Transitioning from EVM to three new programs; (2) reducing the amount of Routine VM work conducted each year commensurate with the amount of undergrounding miles completed; and (3) reducing unit costs	a. The EVM program concluded in 2022 and would not contribute to a savings between 2023 and 2024. The reduction in Routine work and Second Patrol work, reduction in unit costs, and programmatic efficiencies are expected to contribute to the $24M in savings that is shown in this table. ACT FCST FCST	Holly Wehrman	4/24/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.5.2	Vegetation Management and Inspections	Quality Control
251	CalPA	Set WMP-18	CalPA_Set WMP-18	6	CalPA_Set WMP-18_Q6	In response to question 19(b)(iii) of CalAdvocates-PGE-2023WMP-15, PG&E states: The difference [in projected vegetation management costs] of $24,861,000 between 2023 and 2024 is due to several factors, … (3) reducing unit costs through efficiencies over the rate case period through targeted programmatic adjustments that refine processes and improve resource efficiency	a) PG&E anticipates reducing costs on EVM Transitional, Routine, Tree Mortality, and VC pole clearing programs b) i. The three EVM transitional programs are Vegetation Management for Operational Mitigation (VMOM), Tree Removal Inventory (TRI), and Focused Tree Inspections (FTI). ii. To maximize reduction of wildfire risk effectively and efficiently, the EVM program concluded in	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2.5.2	Vegetation Management and Inspections	Quality Control
252	CalPA	Set WMP-18	CalPA_Set WMP-18	7	CalPA_Set WMP-18_Q7	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. WMP Initiative Number	We report vegetation management financials pursuant to the OEIS Guidelines in Table 11 of the Quarterly Data Report. In the table below, we provide additional high-level information into the figures reported in Table 11 based on information available at this time. Please note that due to the nature of vegetation management work the costs listed are all Operating Expenses and no Capital Expenditures. Also note table below includes updates and	Holly Wehrman	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_018.zip	0	N/A	8.2	Vegetation Management and Inspections	N/A
253	TURN	008	TURN_008	1	TURN_008_Q1	Please provide PG&E's most recent calculation of RSEs for Undergrounding, by year from 2023-2025, at the most granular level for which PG&E has computed them. For this question, "Undergrounding" refers to all programs that underground distribution lines for wildfire mitigation purposes and/or fire rebuild purposes. Please provide the workpapers with the supporting inputs and calculations for these RSEs in Excel format.	Our most recent calculation of RSEs for Undergrounding is shared in our 2023 GRC Supplemental Filing from February 2022. The most granular level at which we calculated RSEs is at the tranche level. This is summarized in attachment "WMP Discovery2023_DR_TURN_008-Q001Atch01." The RSE results are summarized in the 'RSE Results' tab with the RSE across 2023-2026 shown in cells 'H12:L12'.	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_008.zip	2	N/A	7.2	Wildfire Mitigation Strategy Development	Risk Impact of Mitigation Initiatives
254	TURN	008	TURN_008	2	TURN_008_Q2	Please provide PG&E's most recent calculation of RSEs for Covered Conductor, by year from 2023-2025, at the most granular level for which PG&E has computed them. Please identify all activities that PG&E includes in the calculation of RSEs for Covered Conductor. Please provide the workpapers with the supporting inputs and calculations for these RSEs in Excel format.	Our most recent calculation of RSEs for Covered Conductor is shared in our 2023 GRC Supplemental Filing in February 2022. The most granular level at which we calculated RSEs is at the tranche level. This is summarized in attachment "WMP Discovery2023_DR_TURN_008-Q001Atch01". The RSE results are summarized in the 'RSE Results' tab with the RSE across 2023-2026 shown in cells 'H11:L11'.	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_008.zip	0	N/A	7.2.2	Wildfire Mitigation Strategy Development	Risk Impact of Mitigation Initiatives
255	TURN	008	TURN_008	3	TURN_008_Q3	Regarding the Undergrounding Decision Tree provided in response to Data Request 5-1, Atch 1, is there an error in the alternative responses to the question at the far right: "Will a route or project scope change mitigate impediments?" It appears that the "Yes" and "No" alternatives should be flipped. If there is an error, please provide a corrected Decision Tree.	The decision tree is correct as originally submitted.	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_008.zip	0	N/A	8.1.2	Grid Design and System Hardening	ALL
256	TURN	008	TURN_008	4	TURN_008_Q4	The first paragraph of the response to TURN data request 5-4 states that, historically, PG&E 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. a. Please provide, in live Excel format, the data on which this statement was based, and provide	a. This statement was based on our CPUC reportable ignitions in High Fire Threat Districts (HFTDs) across PG&E's service territory in 2019–2022. See Worksheet a of attachment WMP-Discovery2023_DR_TURN_008-Q004Atch01.xlsx. The detailed data by ignition can be found in worksheet entitled "Detail_CPUC HFTD 2015-2022." As shown in the table on Worksheet a, we observed 33 of 489 (~7%) equipment-related ignitions in HFTDs associated	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_008.zip	1	N/A	8.1.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
257	TURN	008	TURN_008	5	TURN_008_Q5	In response to TURN DR 5-4, after stating that PG&E is not undergrounding service drops and is not undergrounding secondary lines in most cases, PG&E states in the last paragraph, "We will overhead remaining secondary and service 3 lines by replacing open-wire secondary, gray services, and tree-connects with the current standard covered aerial conductor." (emphasis added)	a) In some cases, where secondary or service wires are in-line with the primary being undergrounded, it too will be undergrounded in the same trench; however, any secondary or service lines that are "lateral" to the undergrounded primary will not be placed underground. Therefore, the term "remaining" is meant to apply to those lateral secondary or service lines that are going to remain overhead. Those "remaining" secondary and service lines will be hardened by	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_008.zip	0	N/A	8.1.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
258	TURN	008	TURN_008	6	TURN_008_Q6	SCE's WMP (R0), p. 252, states that: "SCE has determined that lines with covered conductor have a 90% risk in PSPS activations. When a circuit (or fully isolatable circuit segment) is all covered conductor, the de-energization threshold is increased to 40/58 mph (sustained wind/gusts)." a. Please provide any data, studies or reports in PG&E's possession that address whether lines	a. We have not performed studies or have reports to support whether lines with covered conductors experienced a reduction in PSPS activations. b. We have not performed studies or have reports to support whether any de energization thresholds should be changed for circuits (or portions thereof) with covered conductor. We currently do not plan on adjusting thresholds for circuits with covered conductors for the reasons	Tom Long	4/24/2023	4/27/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_008.zip	0	N/A	8.1.2.1 & 9	Grid Design and System Hardening & PSPS	Covered Conductor and PSPS
259	CalPA	Set WMP-19	CalPA_Set WMP-19	1	CalPA_Set WMP-19_Q1	Please list PG&E's expected average useful life for a given installation of the following technologies: a) DCD b) REFCL	a) DCD technology is provisioned on protective relay equipment. Expected useful life based upon similar technology obsolescence, as well as asset health and lifecycle, is projected to be 20-30 years. b) REFCL expected useful life of the core components is estimated to be 30 years.	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1	Grid Design, Operations, and Maintenance	Down Conductor Detection Devices Rapid Earth Fault Current Limiter
260	CalPA	Set WMP-19	CalPA_Set WMP-19	2	CalPA_Set WMP-19_Q2	a) In 2023, what is the average per-circuit-mile cost that PG&E expects to incur for asset inspection and maintenance for a covered conductor distribution line installed in the HFTD? b) In 2023, what is the average per-circuit-mile cost that PG&E expects to incur for asset inspection and maintenance for an underground distribution line installed in the HFTD? c) In 2023, what is the average per-circuit-mile cost that PG&E expects to incur for asset	a) Conductor is inspected as part of our General Order (GO) 165 detailed ground inspections and patrols program. It is also inspected during infrared inspection. These inspection processes currently do not differentiate between covered conductor and bare conductor. The cost that we expect to incur for distribution overhead asset inspections in HFTDs in 2023 is roughly $2,310 per-circuit-mile, regardless of whether the conductor is covered or	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
261	CalPA	Set WMP-19	CalPA_Set WMP-19	3	CalPA_Set WMP-19_Q3	a) State the total costs that PG&E incurred in 2022 for asset inspections and maintenance on covered conductor distribution lines installed in the HFTD. b) State the total number of circuit-miles of covered conductor distribution lines that PG&E had in the HFTD as of January 1, 2022. c) State the total costs that PG&E incurred in 2022 for asset inspections and maintenance on	a) In 2022, we spent $241 million for asset inspections and maintenance on distribution overhead lines installed in the HFTDs. We do not differentiate costs between covered and bare conductor, so these costs are for all assets in the HFTDs. Further, we only included the maintenance costs associated with general overhead Electric Corrective (EC) Notifications. These costs are tracked at the Maintenance Activity Type (MAT) level, not detailed by asset type, so we could not extract	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.2	Grid Design, Operations, and Maintenance	Grid Design and System Hardening
261	CalPA	Set WMP-19	CalPA_Set WMP-19	3SUPP	CalPA_Set WMP-19_Q3SUPP	a) State the total costs that PG&E incurred in 2022 for asset inspections and maintenance on covered conductor distribution lines installed in the HFTD. b) State the total number of circuit-miles of covered conductor distribution lines that PG&E had in the HFTD as of January 1, 2022. c) State the total costs that PG&E incurred in 2022 for asset inspections and maintenance on	PG&E is amending subparts b, d and f of our original response. Although there is not a specific attribute in GIS to distinguish covered and bare conductors, we were able to utilize the conductor type codes to differentiate between covered and bare conductors. a) In 2022, we spent $241 million for asset inspections and maintenance on distribution overhead lines installed in the HFTDs. We do not differentiate costs	Holly Wehrman	4/25/2023	5/10/2023	5/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.2	Grid Design, Operations, and Maintenance	Grid Design and System Hardening
262	CalPA	Set WMP-19	CalPA_Set WMP-19	4	CalPA_Set WMP-19_Q4	a) In 2023, what is the average per-circuit-mile cost that PG&E expects to incur for vegetation management for an overhead distribution line installed in the HFTD? b) In 2023, what is the average per-circuit-mile cost that PG&E expects to incur for vegetation management for an underground distribution line installed in the HFTD?	a) Based on 2019-2022 data, our cost for vegetation management maintenance systemwide was approximately $8,500 per mile. We expect to incur similar costs in 2023. Costs for vegetation management are not forecast separately between HFTD and Non-HFTD. b) We do not separately forecast an average per-circuit mile cost incurred for vegetation management for an underground distribution line installed in HFTD.	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.2	Vegetation Management and Inspections	N/A
263	CalPA	Set WMP-19	CalPA_Set WMP-19	5	CalPA_Set WMP-19_Q5	a) State the total costs that PG&E incurred in 2022 for vegetation management on overhead distribution lines in the HFTD. b) State the total costs that PG&E incurred in 2022 for vegetation management on underground distribution lines in the HFTD.	a) We do not separately track costs incurred in HFTD vs. Non-HFTD for vegetation management on overhead distribution lines. b) We do not separately track costs incurred in HFTD vs. Non-HFTD for vegetation management on underground distribution lines.	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.2	Vegetation Management and Inspections	N/A
264	CalPA	Set WMP-19	CalPA_Set WMP-19	6	CalPA_Set WMP-19_Q6	a) Please describe the vegetation management activities that PG&E currently undertakes on rights-of-way with underground lines in the HFTD. b) Please describe any changes PG&E plans to make during the 2023-2025 WMP period regarding the vegetation management activities that PG&E plans to undertake on rights-of-way with underground lines in the HFTD.	a) Where there are no overhead electric facilities, we do not conduct routine vegetation management activities. As part of GO 165, the PG&E System Inspection program can identify vegetation work as part of clearing and maintenance for padmount transformers and other typical undergrounding equipment. b) Not applicable.	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.2	Vegetation Management and Inspections	N/A
265	CalPA	Set WMP-19	CalPA_Set WMP-19	7	CalPA_Set WMP-19_Q7	Pages 454-455 of PG&E's WMP describe PG&E's plan to reduce its backlog of open distribution work orders. As part of this plan, PG&E states that it plans to eliminate the ignition-risk backlog by the end of 2029, and the non-ignition risk backlog by the end of 2032. a) Does the plan described above apply to PG&E's entire service territory, or only those tags in the HFTD/HFRA?	a) This plan only applies to tags in HFRA/HFTD areas because these areas constitute 99% of the wildfire risk in our service territory. b) We are still in the process of creating a plan/timeline for eliminating our backlog of tags outside of our HFRA/HFTD areas. Given that the HFRA/HFTD areas comprise 99% of the wildfire risk in our territory, we are prioritizing this work in order to reduce our wildfire risk as quickly and	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.7.2	Open Work Orders	Open Work Orders – Distribution Tags
266	CalPA	Set WMP-19	CalPA_Set WMP-19	8	CalPA_Set WMP-19_Q8	Page 454 of PG&E's WMP states, "We divide remaining notifications into two groups: (1) ignition risk notifications in the HFTD/HFRA; and (2) non-ignition risk notifications in the HFTD/HFRA." a) How does PG&E determine whether a maintenance issue is an "ignition risk notification" or a "non-ignition risk notification"? b) Are there circumstances where a tag is a "non-ignition risk tag" but still poses other public	a) "Ignition Risk" notifications are maintenance tags that have been determined to have some form of ignition risk as a result of the non-conformance identified on the tag (e.g., conductor or structural support deficiency). We used a combination of wildfire risk models to calculate the wildfire risk for each notification. Each notification contains one or multiple FDA (Facility-Damage-Action) code(s) for documenting	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.7.2	Open Work Orders	Open Work Orders – Distribution Tags
267	CalPA	Set WMP-19	CalPA_Set WMP-19	9	CalPA_Set WMP-19_Q9	Page 895 of PG&E's WMP references an external study that stated, "for fire weather purposes, it may be necessary to position additional weather stations in canyons and other regions where short-term winds can rapidly spread wildfires." a) In response to this report, has PG&E assessed the need to position additional weather stations in canyons and other regions where short-term winds can rapidly spread wildfires?	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 continually evaluate the need for additional weather stations during each year of the program and install weather stations where appropriate. b) Please see the response above. The siting of new weather station locations is a routine part of	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-10 – Justification of Weather Station Network Density
268	CalPA	Set WMP-19	CalPA_Set WMP-19	10	CalPA_Set WMP-19_Q10	Table PG&E-22-11-3 on page 903 of PG&E's WMP lists the component costs of covered conductor installation. Below the table, PG&E states, "The costs in Table PG&E-22-11-3 include the components for CC that are comparable with the other IOUs as part of the Joint IOU efforts. They do not include all cost components that make up our comprehensive Overhead System Hardening Program."	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 Grid, Removal, and Underground. The costs associated with the overhead hardening projects recorded were bundled into similar categories for only the overhead hardening portion of our System Hardening program. There are no additional costs associated with overhead hardening that were excluded from Table	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-11 – Covered Conductor Effectiveness Lessons Learned
269	CalPA	Set WMP-19	CalPA_Set WMP-19	11	CalPA_Set WMP-19_Q11	Pages 968-969 of PG&E's WMP describe PG&E's simplified wildfire risk spend efficiency (SWRSE), used to prioritize its undergrounding projects. Page 1006 states, "For the Undergrounding Program, we selected the roughly 8,000 OH miles with the highest SWRSE to produce roughly 10,000 miles of undergrounding." a) Is there a threshold SWRSE value at which PG&E determines that covered conductor is a	a) No, there is no threshold in SWRSE that we use to determine that covered conductor is a more suitable mitigation than undergrounding. SWRSE helps provide ranking of locations which have higher risk spend efficiency to mitigate wildfire work as compared to other locations and is used to select miles for undergrounding. Regarding the decision between covered conductor and undergrounding, the overall consideration of the amount of risk reduction the mitigation provides is	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations
270	CalPA	Set WMP-19	CalPA_Set WMP-19	12	CalPA_Set WMP-19_Q12	Attachment 1 to PG&E's response to data request CalAdvocates-PGE-2023WMP-14 states that on November 18, 2019, an intrusive inspection indicated that a pole had 18% remaining strength. On January 14, 2020, the inspector issued a priority E tag to replace the pole by January 13, 2021. a) Why was the tag for the above pole created approximately two months after the initial finding?	a) The delay was due to this pole being intrusively 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 finite volume of poles (generally between 200 and 400 poles) and the project was not closed until the entire pole population was inspected. Due to	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.3.2.3	Asset Inspections	Intrusive Pole Inspections
271	CalPA	Set WMP-19	CalPA_Set WMP-19	13	CalPA_Set WMP-19_Q13	The PG&E Independent Safety Monitor Status Update Report by Filsinger Energy Partners on October 4, 2022, page 9 states: During the period, the ISM reviewed data provided by PG&E related to PG&E's Underground Transmission asset ages and the average age of certain PG&E Underground Transmission assets. For example, 60% of one type of underground transmission cable is beyond its useful	The confidential attachment is being provided pursuant to the accompnaying confidentiality declaration. a) Please reference "WMP-Discovery2023_DR_CalAdvocates_019-Q013Atch01CONF.pdf" for our internal PG&E presentation from May 2022. Specifically, the references are found on Slide number 16. We clarify that "beyond its useful life"	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	1	N/A	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening –Transmission Conductor and Distribution
272	CalPA	Set WMP-19	CalPA_Set WMP-19	14	CalPA_Set WMP-19_Q14	On April 13, 2023, Cal Advocates met with a Senior Director of Grid Research Innovation and Development at PG&E. During this meeting, PG&E stated that REFCL is not a scalable product. a) Does the above statement accurately reflect PG&E's current assessment of REFCL? Please explain your answer. b) If the answer to part (a) is yes, please state all the reasons why PG&E believes REFCL is not	a) We are still evaluating REFCL technology in the EPIC3.15 demonstration project including field testing and gaining operational experience. We expect to have final results by the end of 2023. Decisions about further deployment of REFCL will be made after completion of the demonstration project with consideration for all wildfire risk mitigations available. b) Not applicable.	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.8.1.3.1	Grid Design, Operations, and Maintenance	8.1.8.1.3.1 Rapid Earth Fault Current Limiter
273	CalPA	Set WMP-19	CalPA_Set WMP-19	15	CalPA_Set WMP-19_Q15	a) Has PG&E performed a study to estimate the combined effectiveness of one or more combinations of covered conductor, EPSS, DCD, PVD, and REFCL in mitigating wildfires, when installed on distribution circuits in the HFTD? b) If the answer to part (a) is no, please explain why not. c) If the answer to part (a) is no, does PG&E plan to perform such a study? If so, provide the	a) PG&E is actively analyzing the effectiveness of Covered Conductor (CC), in combination with EPSS and DCD/PV. In addition, we are actively analyzing the effectiveness of Bare Conductor (BC), in combination with EPSS and DVD/PV. 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.	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	8.1.2	Grid Design and System Hardening	Various
274	CalPA	Set WMP-19	CalPA_Set WMP-19	16	CalPA_Set WMP-19_Q16	Table 7 on page 20 of the Joint IOU Covered Conductor Working Group Report lists SCE's estimate of the combined effectiveness of its covered conductor program, asset inspections, and several vegetation management programs. a) Has PG&E performed a similar estimate of the combined effectiveness of covered conductor, asset inspections, and vegetation management?	) We have not performed a similar analysis of covered conductor (CC) with the same methodology as used in Table 7. b) Not applicable. c) We did not conduct a similar estimate of the combined effectiveness of covered conductor, asset inspections, and several VM programs because Figure 8, Table 6, and Table 7 in the Joint	Holly Wehrman	4/25/2023	4/28/2023	4/28/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_019.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-11 – Covered Conductor Effectiveness Lessons Learned
275	CalPA	Set WMP-20	CalPA_Set WMP-20	1	CalPA_Set WMP-20_Q1	a) Describe PG&E's standard process for retiring an asset from service. b) Describe how PG&E records the retirement of an asset from service.	a) Decisions to replace an asset and "retire" it from service are driven by various factors such as asset risk, condition, design usefulness, and capacity needs, and are determined by the asset managers of each asset family. Different programs establish varied processes for making decisions on when to retire an asset from service	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	1	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
276	CalPA	Set WMP-20	CalPA_Set WMP-20	2	CalPA_Set WMP-20_Q2	a) In 2022, as part of its WMP system hardening activities, did PG&E retire from service (i.e., replace, remove, destroy, or decommission) any assets that had not been fully depreciated at the time of retirement? b) Please describe how PG&E recorded the retirement of assets during 2022 system hardening activities	a) Not applicable. The assets replaced as part of WMP system hardening activities (electric distribution overhead assets) follow group depreciation and retirement accounting. As such, there is no undepreciated value for the assets that were retired. Please refer to our response to Question 005, Subpart (a) for additional information on group depreciation and retirement accounting	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	0	N/A	8.1.2	Grid Design and System Hardening	All
277	CalPA	Set WMP-20	CalPA_Set WMP-20	3	CalPA_Set WMP-20_Q3	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? b) Please describe how PG&E will record the retirement of assets during 2023 system hardening activities	a) 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 undepreciated value of the assets that will be retired. Please refer to our response to Question 005, Subpart (a) for additional information. b) See response to Question 001, Subparts (a) - (b) of this Data Request Set. The	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	0	N/A	8.1.2	Grid Design and System Hardening	All

278	CalPA	Set WMP-20	CalPA_Set WMP-20	4	CalPA_Set WMP-20_Q4	What is PG&E's standard practice for tracking assets that are retired from service before they are fully depreciated?	Please see the response to Question 001, Subpart (b) for information regarding the tracking of PG&E's retired assets. Please also see Question 005, Subpart (a) for information on group depreciation and retirement accounting, as established by the CPUC, FERC, and the National Association of Regulatory Utility Commissioners (NARUC), which PG&E follows.	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	0	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
279	CalPA	Set WMP-20	CalPA_Set WMP-20	5	CalPA_Set WMP-20_Q5	a) If PG&E retires from service an asset that has not been fully depreciated, does it remove the remaining undepreciated value of the asset from its rate base? b) How does PG&E determine the remaining undepreciated value of an asset at the time the asset is retired from service? c) Please describe any scenario in which PG&E would retire from service an asset that has not	a) The premise of this 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	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	0	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
280	CalPA	Set WMP-20	CalPA_Set WMP-20	6	CalPA_Set WMP-20_Q6	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? b) If the answer to part (a) is yes, please explain why. c) If the answer to part (a) is no, list the controls in place that ensure PG&E's rate base does not currently include any portion of the value of assets that are no longer in service.	a) No. Please see the response to Question 005, Subpart (a) for a detailed explanation. b) Not applicable, as described in subpart (a) of this response. c) PG&E follows group depreciation and retirement accounting established by the CPUC, FERC, and National Association of Regulatory Utility Commissioners	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	0	N/A	8.1.5	Asset Management and Inspection Enterprise System(s)	N/A
281	CalPA	Set WMP-20	CalPA_Set WMP-20	7	CalPA_Set WMP-20_Q7	In its response to data request CalAdvocates-PGE-2023WMP-14, questions 20-22, PG&E stated, "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." a) Please explain what is meant by the statement, "Our asset registry and work execution	a) Please see the response to Question 001, Subparts (a) and (b). When an asset is retired from service, PG&E has an as-built process to document work completed in the field. These as-builts are submitted for mapping in the system of record and the retired asset is removed from our Geospatial System or record (GIS). In addition, the retired asset is also removed from the in-service partition of the work	Holly Wehrman	4/26/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_020.zip	0	N/A	8.1	Grid Design, Operations, and Maintenance	Distribution Pole and Replacements Traditional Overhead Hardening Transformers
282	TURN	009	TURN_009	1	TURN_009_Q1	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: a. For each undergrounding project listed in this document, please provide the RSE calculated in accordance with the CPUC's S-MAP Settlement (see pp. 242 et seq of PG&E's WMP-R1) (not SWRSE or WFE) that PG&E calculated for the undergrounding project. Please provide all inputs	a) As explained on page 968 of the 2023-2025 WMP, PG&E developed a measurement described in the 2022 Revised WMP as the Simplified Wildfire Risk Speed Efficiency (SWRSE) or Wildfire Feasibility Efficiency (WiFE) to identify where PG&E could most efficiently reduce risk given the terrain feasibility at a particular location due to the presence of hard rock, large water crossings, and/or gradient. PG&E calculates the SWRSE as follows:	Tom Long	4/26/2023	5/1/2023	5/1/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_009.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-16 – Progress and Updates on Undergrounding and Risk Prioritization
283	MGRA	Data Request No. 3	MGRA_Data Request No. 3	1	MGRA_Data Request No. 3_Q1	Please provide for Asset Point data for Camera, Fuse, Support Structure, and Weather Station.	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
284	MGRA	Data Request No. 3	MGRA_Data Request No. 3	2	MGRA_Data Request No. 3_Q2	Provide Asset Line data for Transmission Line (as permitted as non-confidential), Primary Distribution Line, and Secondary Distribution Line.	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
285	MGRA	Data Request No. 3	MGRA_Data Request No. 3	3	MGRA_Data Request No. 3_Q3	Provide PSPS Event data. Include Event Log, Event Line, Event Polygon data. Please exclude customer meter data. Provide all PSPS Event Asset Damage data including photos.	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
286	MGRA	Data Request No. 3	MGRA_Data Request No. 3	4	MGRA_Data Request No. 3_Q4	Provide Risk Event Point data, including Wire Down, Ignition, Transmission unplanned outage (as classified non-confidential), Distribution Unplanned Outage data, Distribution Vegetation Caused Unplanned Outage, Risk Event Asset Log.	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
287	MGRA	Data Request No. 3	MGRA_Data Request No. 3	5	MGRA_Data Request No. 3_Q5	Under Initiatives, please provide Grid Hardening data, including Hardening Log, Hardening Point, and Hardening Line data. Inspection data is not requested at this time.	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
288	MGRA	Data Request No. 3	MGRA_Data Request No. 3	6	MGRA_Data Request No. 3_Q6	Under Initiatives, please provide Other Initiative data for point, line, polygon features and the Other Initiative Log.	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
289	MGRA	Data Request No. 3	MGRA_Data Request No. 3	7	MGRA_Data Request No. 3_Q7	Under Other Required Data, please provide Red Flag Warning Day polygon data.z	The attachments have been reuploaded to ESFT.	Joseph Mitchell	4/27/2023	5/2/2023	4/27/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_003.pdf	0	N/A	6.4	Risk Methodology and Assessment	Risk Analysis Results and Presentation
290	CalPA	Set WMP-21	CalPA_Set WMP-21	1	CalPA_Set WMP-21_Q1	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 ACC cross-functional team to implement guidelines across all AOCs."4 PG&E states in response to question 11 of data request CalAdvocates-PGE-WMP-15 that its FTI pilot of 300 overhead miles is "intended to yield the learnings needed to support and inform future	Please see the table below for the Focused Tree Inspection Program schedule. PG&E is still developing the procedures for this program. We intend to use Q4 of 2023 to analyze the results of the pilots to inform our 2024 FTI plan. Step in implementing the Focused Tree Inspections Program Beginning Date Completion Date	Holly Wehrman	4/27/2023	5/2/2023	5/2/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_021.zip	0	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
291	CalPA	Set WMP-21	CalPA_Set WMP-21	2	CalPA_Set WMP-21_Q2	Per Table 2 in PG&E's Revised Quarterly Data Report for quarter 4 of 2022, PG&E had the following numbers of level 2 and level 3 findings from distribution inspections in the HFTD in 2020, 2021, and 2022: Distribution Inspection Findings in HFTD 2020	After reviewing the data to provide a response to this request, PG&E realized that the data provided in our prior submission was incorrect. This discrepancy was the result of an Excel error that occurred when PG&E revised Table 2 with the additional inspection type details required for Q4 2022. Please see attachment "WMPDiscovery2023_DR_CalAdvocates_021-Q002Atch01.docx" for updated distribution inspection findings in HFTD from 2020 to 2022.	Holly Wehrman	4/27/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_021.zip	1	N/A	QDR	N/A	N/A
292	CalPA	Set WMP-21	CalPA_Set WMP-21	3	CalPA_Set WMP-21_Q3	In response to data request CalAdvocates-PGE-2023WMP-16, question 10, PG&E stated, "The five most common problems identified in the QC process are: C-hooks, insulators, cotter pins, shoe issues, and structural issues." For each of the problems listed above, please list any changes PG&E has made to its inspection process, procedures, or training to reduce the number of inspections with these	The confidential attachment is being provided pursuant to the accompanying confidentiality declaration. Please note, the quote is in reference to CalAdvocates-PGE-2023WMP-10, question 15. For transmission inspections training, the top QC findings were shared with all returning and new inspectors as part of 2023 Onboarding and Refresher	Holly Wehrman	4/27/2023	5/2/2023	5/2/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_021.zip	3	N/A	QDR	N/A	N/A
293	CalPA	Set WMP-21	CalPA_Set WMP-21	4	CalPA_Set WMP-21_Q4	Figure PG&E-8.1.8-2 on p. 465 of PG&E's WMP shows that PSPS will be considered under the following conditions: • Wind gusts 30-40+ mph • Relative humidity <30% • Dead Fuel Moisture <8-11%	a) Figure PG&E-8.1.8-2 on p. 465 of PG&E's WMP is intended to be a simplified version of our criteria for general awareness. Whereas the thresholds on page 768 of PG&E's WMP are the minimum fire potential conditions with quantifiable factors used during PSPS. b) An FPI of R5+ is when there is an occurrence of high FPI (above 0.7) plus the presence of non-ignition potential drivers by wind	Holly Wehrman	4/27/2023	5/2/2023	5/2/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_021.zip	0	N/A	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.
294	MGRA	Data Request No. 4	MGRA_Data Request No. 4	1	MGRA_Data Request No. 4_Q1	Please provide a description of how the data was created, and from which version of WDRM. Please provide a description of how risk data was assigned to the 100 meter square polygons that make up the layer, specifically if it is an average over the risk scores of the components within the area.	Section 6.4.1.1 is provided in response to Energy Safety's 2023-2025 WMP guidelines which requested a geospatial risk map with risk levels presented in three layers as the top 5%, 5% to 20%, and bottom 80% within the HFRA. PG&E provided a more detailed presentation of risk layers than requested. For this reason, the numeric risk value is not provided as it was not requested.	Joseph Mitchell	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	1	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
295	MGRA	Data Request No. 4	MGRA_Data Request No. 4	2	MGRA_Data Request No. 4_Q2	Explain why the vast majority of the polygons show low risk (<25%), and why high risk polygons (>70%) are very rare.	PG&E objects to this question as vague. Subject to and without waiving this objection, PG&E responds as follows: High risk polygons are rarer than low risk polygons as the highest wildfire risk is concentrated. This distribution of risk can be seen in Figure 6.2.2-11.	Joseph Mitchell	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
296	MGRA	Data Request No. 4	MGRA_Data Request No. 4	3	MGRA_Data Request No. 4_Q3	Explain why the polygons do not cover all of the primary distribution lines in the HFTD. Example below:	Upon review, PG&E has confirmed that the original Attachment 2023-03-27_PGE_2023_WMP_R1_Appendix C_Atch01\Section_6.gdb file inadvertently dropped some risk pixels. Please see "WMP-Discovery2023_DR_MGRA_004-Q003Atch01.zip" for an updated GDB file. We will reach out to Energy Safety to provide this updated information pursuant to Energy Safety's guidelines.	Joseph Mitchell	4/28/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	1	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
297	MGRA	Data Request No. 4	MGRA_Data Request No. 4	4	MGRA_Data Request No. 4_Q4	Please explain why isolated "hot polygons" appear in the data, as shown below, and whether these represent actual risk or an artifact.	It is difficult to determine the location of the provided example based on the information provided. Orphaned pixels, such as those shown in the example, may result from missing pixels due to incomplete data or processing of the data. At the pixel-by-pixel level, the model does exhibit some level of noise that can result in high-risk hot spots in an area of generally lower risk pixels . As seen in the example below, low risk and hotrisk pixels can mix locally. For this reason, workplan	Joseph Mitchell	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
298	MGRA	Data Request No. 4	MGRA_Data Request No. 4	5	MGRA_Data Request No. 4_Q5	Please provide an alternative and more complete version of this data set in which: a. Raw numeric data is provided rather than a 5% binning. This will allow a rescaling of "low" and "high" risks to be more relative and show any gradients across the PG&E territory. b. Coverage extends to all circuits in the HFTD.	a. Please find the requested data in "WMP-Discovery2023_DR_MGRA_004-Q003Atch01.zip." Results from analysis at the pixel level will provide a different assessment of the spatial pattern of risk than at the aggregated level. b. Specific to this request, the attached file provides risk pixels and associated requested values for all locations in the HFTD and HFRA.	Joseph Mitchell	4/28/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
299	MGRA	Data Request No. 4	MGRA_Data Request No. 4	6	MGRA_Data Request No. 4_Q6	If the risk score for each polygon represents an average over the risk in the polygon, please provide an additional version in which the maximum numerical value in the polygon is provided instead.	As described in section 6.2.2.3, pages 171 and 172 in PG&E's 2023-2025 WMP, the pixel level risk value is the product of the cumulative probability of all risk drivers in that pixel and the wildfire consequence. As such, the value is not an average over the risk in a polygon.	Joseph Mitchell	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
300	MGRA	Data Request No. 4	MGRA_Data Request No. 4	7	MGRA_Data Request No. 4_Q7	If possible, provide two additional sets of GIS data in identical format to the original, one representing the POI component of the WDRM model and a separate set showing the consequence component of the WDRM score. Output should be in numerical format and not binned.	The file provided in "WMP-Discovery2023_DR_MGRA_004-Q003Atch01.zip" contains the additionally requested Risk, POI, and Wildfire Consequence data.	Joseph Mitchell	4/28/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
301	MGRA	Data Request No. 4	MGRA_Data Request No. 4	8	MGRA_Data Request No. 4_Q8	Please provide an excel spreadsheet giving the Distribution Outage ID for each outage occurring while EPSS was enabled in 2022.	Please see "WMP-Discovery2023_DR_MGRA_004-Q008Atch01.xlsx."	Joseph Mitchell	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_004.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
302	TURN	010	TURN_010	1	TURN_010_Q1	PG&E's WMP (R1) at page 3 states PG&E undergrounded 180 miles in 2022 and 73 miles in 2021. In each of these years, separately, please provide the number of overhead miles that were converted to underground related to these mileage figures.	We currently do not track the overhead miles removed and replaced through undergrounding. Our geospatial system of record only tracks assets currently in the field. Based on the average overhead to undergrade conversion factor of 1 overhead mile to 1.25 system hardening underground miles and the estimated conversion factor of 1 overhead mile to 1.57 communication underground miles, the estimated overhead	Tom Long	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	0	N/A	8.1.2.2	Grid Design, Operations, and Maintenance	Undergrounding
303	TURN	010	TURN_010	2	TURN_010_Q2	PG&E's WMP (R1) at page 4 states "Between 2023 and 2026, 87 percent of PG&E's undergrounding work is planned for the top 20 percent of risk-ranked circuit segments, as identified by our risk models." a. Please provide workpapers and data in Excel that supports the 87 percent figure. b. Please explain what "top 20 percent of risk-ranked circuit segments" means, and reference the	The confidential attachment is being provided pursuant to a signed Non Disclosure Agreement with PG&E. a. Please see attachment "WMP-Discovery2023_DR_TURN_010-Q002Atch01CONF.xlsx" b. "Top 20% Risk-Ranked Circuit Segments" miles can come from either the WDRM V2 or V3 Risk Rank Models:	Tom Long	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	1	Yes	8.1.2.2	Grid Design, Operations, and Maintenance	Undergrounding
304	TURN	010	TURN_010	3	TURN_010_Q3	Following up on the response to TURN DR 7-4(c), in which TURN asked whether PG&E calculated circuit-segment level RSEs for the past and future work shown in Attachment 2023-04-06_PGE_2023_WMP_R2_Section 6.4.2_Atch01, an earlier version of which is referenced on page 195, fn. 77 of the WMP (R1): a. Whether or not OEIS required PG&E to present such circuit-segment level RSEs in the 2023-2025 WMP, has PG&E calculated them? If so, please provide the RSEs, preferably as additional	As described in more detail in response to TURN Data Request 09, PG&E's Wildfire Feasibility (WFE) scores incorporate the elements of RSE calculations with the feasibility element used to modify the spend factor to account for operational and executability factors. Please see attachment "WMP-Discovery2023_DR_TURN_010-Q003Atch01.xlsx" for a list of all circuit segments and their calculated WFE scores. Circuit segments without a WFE score are not in a HFTD and do not have a score calculated.	Tom Long	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	1	N/A	6.4.2	Risk Methodology and Assessment	Top Risk-Contributing Circuits/Segments
305	TURN	010	TURN_010	4	TURN_010_Q4	Re Figure 22-34-1 on p. 969 (R1): a. Please provide this Figure in Excel with supporting data and calculations. b. Please explain what "line weighted risk per mile" means and how it is calculated. c. If not provided in part (a), in Excel please provide all circuit segments in PG&E's HFTD and HFRA and the corresponding WFE score and simplified WERSE. Please provide supporting data	I) Please see "WMP-Discovery2023_DR_TURN_010-Q004Atch01.xlsx". Please note, the results and visual do not match identically due to the number of data points and size and scaling of the chart. This does not impact the Pearson coefficient results. b) Historically, PG&E has risk scored our circuit segments by "total risk" (the sum total	Tom Long	4/28/2023	5/10/2023	5/8/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations
306	TURN	010	TURN_010	5	TURN_010_Q5	Please provide the number of miles of secondary overhead distribution lines versus primary overhead distribution lines in PG&E's HFTD, and separately for PG&E's self-identified HFRA.	Please see "WMP-Discovery2023_DR_TURN_010-Q005Atch01.xlsx".	Tom Long	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	1	N/A	8.1.2.5	Grid Design and System Hardening	Traditional Overhead Hardening
307	TURN	010	TURN_010	6	TURN_010_Q6	PG&E's WMP (R1) at page 4 states "Recent data and analysis demonstrate that the Enhanced Vegetation Management (EVM) Program risk reduction is less than EPSS and additional Operational Mitigations such as Partial Voltage Detection capabilities." Please provide this recent data, including all supporting documents and quantitative analyses in Excel, that support this statement.	PG&E introduced the comparison of risk reduction and Risk Spend Efficiency (RSE) of EPSS vs EVM in the 2022 WMP and 2023 GRC Supplemental Filing in February 2022. This comparison is described in the 2023 GRC, Exhibit 3 Chapter 4 page 3-2 through 3-7. The updated wildfire mitigation strategy is summarized in Table 3-4 on page 3-39, as the risk reduction relative to spend between EVM and EPSS is substantially in EPSS's favor.	Tom Long	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	4	N/A	8.2.3	Vegetation Management and Inspections	Vegetation and Fuels Management

308	TURN	010	TURN_010	7	TURN_010_Q7	PG&E WMP (R1) at page 251 states "The type of mitigation tradeoff and effectiveness analysis we conduct informed PG&E's decision to transition away from the Enhanced Vegetation Management (EVM) program." a. Please provide all documentation and internal communications regarding the transition away from the EVM program.	a. Please see "WMP-Discovery2023_DR_TURN_010-Q007Atch03CONF.pdf" sent by VM Program Communications on October 20, 2022 referencing end of EVM at the end of 2022. In an All-Hands Call held on October 20, 2022, PG&E informed staff that due to the end of the Enhanced Vegetation Management (EVM) Program by year's end, PG&E has eliminated the EVM program's mandatory trainings and evaluations.	Tom Long	4/28/2023	5/3/2023	5/3/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_010.zip	3	Yes	8.2.3	Vegetation Management and Inspections	Vegetation and Fuels Management
309	TURN	011	TURN_011	1	TURN_011_Q1	1.PG&E's WMP (R1) at page 4 references WDRM v3. a.Please explain and quantify the difference in risk ranking results between WDRM v2 and WDRM v3. Please provide all supporting data and analysis in Excel with working formulas. b.Please provide all results of WDRM v3 in Excel at the circuit segment, circuit protection zone, or most granular level available. This should include, at minimum, the following information in	a) A explanation and quantification of the differences between the top 20% risk ranked circuit segments between WDRM v2 and WDRM v3 models is provided in the response to ACI 22-09 on pages 885-892 of the 2023 PG&E WMP. The worksheet supporting this work is provided in attachment "WMP Discovery2023_DR_TURN_011-Q001Atch01.xlsx ".Within the worksheet the	Tom Long	5/1/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_011.zip	2	N/A	6.2	Risk Methodology and Assessment	Risk Analysis Framework
310	TURN	011	TURN_011	2	TURN_011_Q2	2.Re PG&E's undergrounding workplan, "2023-04-06_PGE_2023_WMP_R1_Appendix D ACI PG&E-22-16_Atch01." a.Please add a column that provides the unique circuit segment identifier requested in 1(b)(i) above. b.Please add a column to this spreadsheet that provides the total wildfire risk of each circuit	The confidential attachment is being provided pursuant to a signed NDA with PG&E. For subparts A-D, please see attachment "WMP-Discovery2023_DR_TURN_011-Q002Atch01CONF.xlsx". a. See column N for WDRM v2 circuit segment identifiers.	Tom Long	5/1/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_011.zip	3	Yes	Appendix D	Areas for Continued Improvement	ACI PG&E-22-16 – Progress and Updates on Undergrounding and Risk Prioritization
311	TURN	011	TURN_011	3	TURN_011_Q3	3.Regarding DR response TURN-7, attachment, "WMP-Discovery2023_DR_TURN_007-Q001Atch01CONF.xlsx". a.Please add a column to this spreadsheet, for tab "PG&E UG Workplan 2023-26_Conf," with the unique identifier for each circuit segment provided in 1(b)(i) and 2(a) above. b.Please provide the supporting data and calculations for tab "PG&E UG Workplan 2023-	a. The circuit segment identifier is the name of the circuit segments as previously shared in our workplan. In attachment "WMPDiscovery2023_DR_TURN_007-Q001Atch01CONF.xlsx", see column O for WDRM v2 circuit segment identifiers, and column R for WDRM v3 circuit segment identifiers. b. Please see attachment "WMPDiscovery2023_DR_TURN_010-Q004Atch01.xlsx".	Tom Long	5/1/2023	5/8/2023	5/8/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_011.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
312	TURN	011	TURN_011	4	TURN_011_Q4	4. Regarding Attachment 2023-04-06_PGE_2023_WMP_R2_Section 6.4.2_Atch01, an earlier version of which is referenced on page 195, fn. 77 of the WMP (R1): a. Please add a column to this spreadsheet and provide the unique circuit segment identifier requested in 1(b)(i) above and 2(a) and 3 above. b. In Excel, please provide all supporting data and properly link cells in this spreadsheet to support	a) Please see sheet "Model Data", Column B, in attachment "WMP Discovery2023_DR_TURN_011-Q004Atch01.xlsx". b) Please see attachment "WMP-Discovery2023_DR_TURN_011-Q004Atch01.xlsx". Data_RR links to Model Data sheet in this attachment. The "Model Data" tab summarizes the calculation of risk reduction per circuit	Tom Long	5/1/2023	5/8/2023	5/8/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_011.zip	1	N/A	6.4.2	Risk Methodology and Assessment	Top Risk-Contributing Circuits/Segments
313	CalPA	Set WMP-22	CalPA_Set WMP-22	1	CalPA_Set WMP-22_Q1	During the panel discussion portion of the Grid Operation, Design, and Maintenance session of the WMP workshop held on April 27, 2023, PG&E estimated that, during wildfire season (May through November) in 2022, EPSS was enabled on approximately 40-60% of circuit days. a) Is the above estimate correct? If not, please provide an estimate of the percentage of circuit days that EPSS was enabled during fire season in 2022.	a) Yes, we calculated the number of High Fire Risk Area (HFRA) circuits that were protected by EPSS between May and November in 2022, which was 59.8% of circuit-days. Note that we did not include EPSS buffer circuits, which are only enabled during Fire Weather Watch , Red Flag Warning, or minimum Fire Potential Conditions. Including those circuits would reduce that percentage significantly (those circuits , or portions of circuits , are only enabled a few hour per	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.8.1.1	Grid Design and System Hardening	Protective Equipment and Device Settings
314	CalPA	Set WMP-22	CalPA_Set WMP-22	2	CalPA_Set WMP-22_Q2	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, PG&E stated that it was evaluating tools and techniques to perform undergrounding in those areas. Regarding undergrounding in areas with steep and rocky terrain:	b) Yes, we calculated the number of High Fire Risk Area (HFRA) circuits that were protected by EPSS between May and November in 2022, which was 59.8% of circuit-days. Note that we did not include EPSS buffer circuits, which are only enabled during Fire Weather Watch , Red Flag Warning, or minimum Fire Potential Conditions. Including those circuits would reduce that percentage significantly (those circuits , or portions of circuits , are only enabled a few hour per	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
315	CalPA	Set WMP-22	CalPA_Set WMP-22	3	CalPA_Set WMP-22_Q3	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, PG&E stated that it was evaluating tools and techniques to perform undergrounding in those areas. Regarding undergrounding in wetland areas:	a) To the greatest extent possible, PG&E avoids construction in federal or state jurisdictional wetlands and we have generally found relatively few locations where it is unavoidable to underground in a "wetland" area. PG&E will first seek to relocate our distribution circuits to a less sensitive environmental location. However , undergrounding across water crossings – streams, rivers, etc. is not uncommon due to the linear nature of electric distribution circuits and the linear	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
316	CalPA	Set WMP-22	CalPA_Set WMP-22	4	CalPA_Set WMP-22_Q4	Table PG&E-22-11-3 on page 903 of PG&E's WMP states that the cost per circuit mile of covered conductor was $851,698 in 2022. PG&E's response to data request CalAdvocates-PGE-2023WMP-19, question 10 confirms that "There are no additional costs associated with overhead hardening that were excluded from Table 22-11-3." In response to data request CalAdvocates-PGE-2023WMP-06, question 10, PG&E stated that its	a) The primary driver for this discrepancy is that in Table PG&E-22-11-3 of the WMP, the unit cost is calculated on 2022 projects using the cost-since-inception methodology to derive the true unit cost. Meaning, the costs for those projects include the whole lifecycle of costs from prior to 2022. The inferred unit cost calculation in this data request using data from CalAdvocates-PGE-	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.2.1	Grid Design and System Hardening	Covered Conductor Installation – Distribution
317	CalPA	Set WMP-22	CalPA_Set WMP-22	5	CalPA_Set WMP-22_Q5	In response to data request CalAdvocates-PGE-2023WMP-19, question 3, PG&E stated: In addition, our GIS system does not include an attribute to distinguish between covered and bare conductor. As a result, we are only able to provide the total overhead distribution line circuit-miles, not the breakdown between covered and bare conductor. a) Is PG&E unable to determine the number of circuit miles of covered conductor in its system?	PG&E is amending CalAdvocates-PGE-2023WMP-19, Question 3, subparts b, d and f of our original response to clarify that although there is not a specific attribute in GIS to distinguish covered and bare conductors, we were able to utilize the conductor type codes to differentiate between covered and bare conductors. a) Please reference PG&E's revision to CalAdvocates-PGE-2023WMP-19, Question	Holly Wehrman	5/2/2023	5/10/2023	5/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.2.1	Grid Design and System Hardening	Covered Conductor Installation – Distribution
318	CalPA	Set WMP-22	CalPA_Set WMP-22	6	CalPA_Set WMP-22_Q6	a) Given the best information now available to PG&E, is the expected useful life of newly installed covered conductor identical to that of newly installed bare overhead conductor? b) Does PG&E expect that the asset management and maintenance needs for covered overhead conductor are identical to those of bare overhead conductor? c) Does PG&E intend, either now or at any point in the future, to apply different PSPS criteria	a) 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, PG&E does not have a set useful life expectancy for covered conductor due to ongoing evaluation of UV exposure and the possibility of accelerated corrosion from water intrusion to the protective jacket. These failure modes were documented in PG&E's Covered	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.2.1	Grid Design and System Hardening	Covered Conductor Installation – Distribution
319	CalPA	Set WMP-22	CalPA_Set WMP-22	7	CalPA_Set WMP-22_Q7	Table 8-7-2 on page 446 of PG&E's WMP uses the term "Critical pass rate." Please define this term.	The attachment to this response is confidential as described in the confidentiality declaration of Richard Knoebel, dated May 5, 2023.Please see attachment "WMP-Discovery2023_DR_CalAdvocates_022-Q007Atch01CONF.pdf" for the requested information. Specifically, on pages 1-2 of the document, we identify three calculations that comprise the Quality Pass Rate: (1) the OH Switching Pass Rate; (2) the OH Transmission Pass Rate; and	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	1	N/A	8.1.6.2	Grid Design and System Hardening	Quality Control
320	CalPA	Set WMP-22	CalPA_Set WMP-22	8	CalPA_Set WMP-22_Q8	In response to data request CalAdvocates-PGE-2023WMP-05, question 3, PG&E provided the number of distribution inspections that failed QC review. Out of 52,894 inspections that underwent desktop quality control, 4,978 (9.4%) failed. Out of 4,096 inspections that underwent field quality control, 602 (14.7%) failed. The above numbers generate a pass rate of 90.6% for desktop quality control and 85.3% for field	a) All numbers in the table above have been verified and are accurate per our 2022 data and dashboards. b) Critical pass rate is a subset of the overall pass rate, looking at specific, Critical priority ranked attributes. c Pass rate, in this example, is defined as "The number of inspections that failed QC review was	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.6.2	Grid Design and System Hardening	Quality Control
321	CalPA	Set WMP-22	CalPA_Set WMP-22	9	CalPA_Set WMP-22_Q9	In response to data request CalAdvocates-PGE-2023WMP-06, question 6, PG&E provided a list of incidents in 2022 where the actions of a VM contractor posed a safety risk to workers or the public. Please fill out the spreadsheet "CalAdvocates-PGE-2023WMP-23_Atch01.xlsx" with the number of miles worked by each VM contractor in 2022 for each VM program/initiative.	PG&E does not track the number of miles worked by each VM contractor. PG&E tracks the number of trees worked by vendor, or poles worked by vendor depending on the program in question. Please see " WMP-Discovery2023_DR_CalAdvocates_022-Q009Atch01.xlsx" spreadsheet for the number of trees worked by vendor for Routine/CEMA, EVM, Pole Work, and Wildfire Rebuild. The Systems Inspections program does not work with VM contractors.	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	1	N/A	8.2	Vegetation Management and Inspections	various
322	CalPA	Set WMP-22	CalPA_Set WMP-22	10	CalPA_Set WMP-22_Q10	In response to data request CalAdvocates-PGE-2023WMP-02, question 1, PG&E provided its 2022 Quality Verification Distribution Audit report (WMP-Discovery2023_DR_CalAdvocates_002-Q001Atch02CONF.pdf). a) For each of the 15 "zero tolerance & high-risk findings" identified on page 4 of the above report, what actions has PG&E taken to mitigate these nonconformances in the future?	The CONFIDENTIAL attachments are being provided pursuant to the accompanying confidentiality declaration. a) The zero tolerance and high-risk findings were (page 4 of the report): 1. (5) Zero Tolerance – Work Not Done (WND); (4) Missed Inspections; (1) Unsafe conductor dead-end (.10) High Risk – (5) Exposed/damaged conductors (potential fire hazard); (3) Wrong	Holly Wehrman	5/2/2023	5/12/2023	5/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	2	N/A	8.1.6.1	Grid Design and System Hardening	Quality Assurance and Quality Control
323	CalPA	Set WMP-22	CalPA_Set WMP-22	11	CalPA_Set WMP-22_Q11	Table PG&E-8.1.2-3 on page 349 of PG&E's WMP lists the number of undergrounding 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 for segments is based on the 2021 WDRM v2. The 2024-2026 risk rank for segments is based on the 2022 WDRM v3." a) Please define "Top 20 percent Risk-Ranked Circuit Segments" for each year from 2023-2026.	a) As indicated in Table PG&E-8.1.2.3, the "Top 20% Risk-Ranked Circuit Segments" miles can be from either the WDRM v2 or V3 Risk Models. The 2023 risk rank for segments is based on the 2021 WDRM v2. The 2024-2026 risk rank for segments is based on the 2022 WDRM v3. b) "Top 20% Risk-Ranked Circuit Segments" are miles selected from the WDRM V3 risk	Holly Wehrman	5/2/2023	5/5/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_022.zip	0	N/A	8.1.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
324	CalPA	Set WMP-23	CalPA_Set WMP-23	1	CalPA_Set WMP-23_Q1	PG&E states in its WMP p. 751, "Based on our updated 2021 PSPS Protocols, some of the customers 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 'mitigated with PSPS Protocols'." Please explain in detail how circuit ID 152481106 (circuit name Brunswick 1106) would have been mitigated by PSPS Protocols.	See response to WMP-Discovery2023_DR_CalAdvocates_012-Q004Supp01, subparts b, c, and d. Additionally, see WMP-Discovery2023_DR_CalAdvocates_012-Q001Supp01Atch01 full list of circuits mitigated by PSPS Protocols and the Distribution customer-events that would have been mitigated.	Holly Wehrman	5/3/2023	5/8/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_023.zip	0	N/A	9.2	Public Safety Power Shutoff	Protocols on PSPS
325	CalPA	Set WMP-23	CalPA_Set WMP-23	2	CalPA_Set WMP-23_Q2	Regarding PG&E's October 26-29, 2019, Post-PSPS Event Report4, Please explain in detail how PG&E's 2021 PSPS Protocols, as mentioned in Question 1, would have mitigated customers served by each of the affected circuits during this PSPS de-energization event.	See response to question 1 in this data request set for explanation on how the current PSPS Protocols would mitigate customers.	Holly Wehrman	5/3/2023	5/8/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_023.zip	0	N/A	9.2	Public Safety Power Shutoff	Protocols on PSPS
326	CalPA	Set WMP-23	CalPA_Set WMP-23	3	CalPA_Set WMP-23_Q3	Regarding PG&E's AFN Plan5, Appendix C "Program/Assistance Participation by Census Tract", p. A-9, please provide the demographics (especially racial/ethnic breakdown and income distribution), if known, for each census tract that received benefits of the following programs: a) Self-Generation Incentive Program b) Portable Battery Program	PG&E does not collect demographic data, such as racial/ethnic breakdown or income distribution, from its customers. The only proxy that PG&E is aware of is participation in the California Alternate Rates for Energy (CARE) program, which qualifies customers based on income. PG&E provides three tables – one for each of the Self-Generation Incentive Program, Portable Battery Program, and Generator and Battery Rebate Program – that provides the number of	Holly Wehrman	5/3/2023	5/8/2023	5/5/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_023.zip	3	N/A	8.5.3	Community Outreach and Engagement	Engagement with Access and Functional Needs Population
327	OEIS	004	OEIS_004	1	OEIS_004_Q1	Regarding Ignition Probability Weather Model In PG&E's WMP, it states its "IPW framework analyzes positive and negative changes in grid performance and reliability year-over year and applies a timeweighted approach to weigh more recent years of learned performance more heavily in the final model output." (p. 769). a. What metrics are used to analyze the year-over-year changes in grid performance and	The IPW model learns changes in performance through the hourly relationship between outage occurrence and the weather conditions present. We use evaluation metrics like the AUROC values as published in our WMP to assess model skill for model deployment. b. To date, system hardening is not an explicit feature, or input, of the IPW model. Any changes in the current model due to system hardening would come from the outage occurrence to weather	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	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	OEIS	004	OEIS_004	2	OEIS_004_Q2	Regarding EPSS in IPW Model PG&E discusses its Ignition Probably Weather (IPW) Model on p. 769 of its WMP. a. How does the IPW Model analyze and consider outages from EPSS (i.e. differentiating analysis completed)? b. How does the IPW Model account for EPSS-enabled circuits?	a. The OPW-IPW model does not differentiate between circuits that had or have EPSS enabled currently.The EPSS program is not expected to create additional outages; outage activity over the past 5 years on these circuits during the May to November time frame has been essentially flat, including in 2022 when EPSS was fully rolled out. The outages that do occur tend to impact more customers since the protection scheme over reaches fuses by design; faults that cause an EPSS	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	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	OEIS	004	OEIS_004	3	OEIS_004_Q3	Regarding After Action Reports for Emergency Preparedness Provide the most recent After Action Report from emergency training exercises for the following exercises: a. Table 8-39 Personnel Training i. EP&R Emergency Preparedness Training Program	The confidential attachments are being provided pursuant to the accompanying confidentiality declaration. a. After Action Reports are not created for Personnel Training, including the items identified in Table 8-39. b. After Action Reports are not created for External Contractor Training, including the item in	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	2	N/A	8.4.2.2.2	Emergency Preparedness	Personnel Training
330	OEIS	004	OEIS_004	4	OEIS_004_Q4	Regarding Customer Group in PSPS Objective PS-05 In PSPS objective PS-05, PG&E states that it will focus on a group of customers "not limited to AFN, MBL and self-identified vulnerable populations." a. How does PG&E define this group of customers it is focusing on? b. What is the size of this group of customers that PG&E is focusing on?	a. In addition to access and function needs (AFN), medical baseline (MBL), and self identified vulnerable (SIV) populations, PG&E intends to focus on customers more frequently impacted by PSPS and/or EPSS. Additionally, since permanent batteries are more costly to implement than portable batteries, PG&E intends to additionally focus on lower-income customers (i.e. CARE and ERA participants) and other customers who may lack the financial means to acquire backup	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	8.5.3	Community Outreach and Engagement	Engagement With Access and Functional Needs Populations
331	OEIS	004	OEIS_004	5	OEIS_004_Q5	Regarding Areas of Concern and Focused Tree Inspections (FTI) a. How will PG&E address risk from green hazard trees (those not obviously dead, dying, or declining) in non-Areas of Concern? b. P-WMP_2023-PG&E-003, Question 7, PG&E indicated that ISA TRAQ form is not digitized and will be used as a guide for FTI. During FTI, what information is inputted into OneVM? Provide	The confidential attachment is being provided pursuant to the accompanying confidentiality declaration. a. As outlined in PG&E's Vegetation Management Distribution Inspection Procedure, provided as "WMP-Discovery2023_DR_OEIS_004-Q005Atch01CONF.pdf," if a VMI identifies a hazard tree during a Level 1 inspection, a Level 2 inspection will be performed to determine if tree work is	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	8.2.2.2.5	Vegetation Management and Inspections	Focused Tree Inspections
332	OEIS	004	OEIS_004	6	OEIS_004_Q6	Regarding Enhanced Vegetation Management a. Populate the following table with information regarding EVM: Year HFTD Miles Completed Inspected Strike Potential Trees	Year HFTD Miles Completed Inspected Strike	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
332	OEIS	004	OEIS_004	6REV	OEIS_004_Q6REV	Regarding Enhanced Vegetation Management a. Populate the following table with information regarding EVM: Year HFTD Miles Completed Inspected Strike Potential Trees	We would like to amend our response to "WMP Discovery2023_DR_OEIS_004Q006.pdf," submitted to the Office of Energy Infrastructure Safety on May 9, 2023. In our response, we miscalculated the number of "Trees Worked" and the "Average Trees Per Miles" in 2022. Please see revised chart below with the updated numbers highlighted. Year	Colin Lang	5/4/2023	5/15/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	8.2.2.2.6	Vegetation Management and Inspections	Discontinued Programs
333	OEIS	004	OEIS_004	7	OEIS_004_Q7	Q7. Regarding Vegetation-Caused Outages a. Populate the following table of vegetation-caused outages by mode of failure in the HFTD between 2015 and 2022, broken out by year. PG&E may add additional rows (i.e., mode of failure) if needed. VEGETATION-CAUSED OUTAGE MODE OF FAILURE	PG&E does not capture the HFTD tier in outage reports therefore the data being provided cannot be filtered to only include outages in HFTD areas. Please see attachment "WMP-Discovery2023_DR_OEIS_004-Q007Atch01.xlsx" for the system wide vegetation-caused outage by mode of failure from 2015-2022 as recorded by PG&E	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-28 – Progression of Effectiveness of Enhanced Clearances Joint Study
334	OEIS	004	OEIS_004	8	OEIS_004_Q8	Regarding Vegetation Hazards Mitigated by PSPS a. Does PG&E have data on vegetation hazards mitigated by PSPS? If so, populate the following table of vegetation hazards mitigated by mode of failure in the HFTD between 2015 and 2022, broken out by year. PG&E may add additional rows (i.e., mode of failure) if needed. MODE OF FAILURE FOR VEGETATION HAZARDS MITIGATED BY PSPS	PG&E interprets this question as identifying vegetation related damages and hazards after patrolling and inspecting circuits impacted by PSPS. PG&E started implementing PSPS in 2018, therefore, did not collect data prior from 2015-2018. While PG&E records whether or not a PSPS damage or hazard is vegetation-related, because the powerlines are de-energized to prevent potential ignitions from vegetation contact, PSPS patrollers do not assess vegetation failure	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	9.2.2	Public Safety Power Shutoff	Method Used to Compare and Evaluate the Relative Consequences of PSPS and Wildfires
335	OEIS	004	OEIS_004	9	OEIS_004_Q9	Regarding Coordination with Other Utilities on PSPS Wind Thresholds In its response to ACI PG&E-22-31, PG&E states "In collaboration with the joint IOU team, PG&E has performed effectiveness studies to evaluate how covered conductors can reduce ignition risk compared to bare conductor." a. Is the collaboration referenced the Covered Conductor Effectiveness Study (Table 8.63, Line	a. The Joint IOU Covered Conductor Working Group Report was provided in the original submission as part of attachment "Attachment 2023-03-27_PGE_2023_WMP _R0_Appendix D ACI PG&E-22-11_Atch01.pdf". i. PG&E did not collaborate with the investor-owned utilities to evaluate the effectiveness of covered conductors related to PSPS.	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-31 – PSPS Wind Threshold Change Evaluations
336	OEIS	004	OEIS_004	10	OEIS_004_Q10	Regarding Tree Fall-In and PSPS In its response to ACI PG&E-22-31, PG&E states "based on collaboration with the joint IOU team, one of the biggest hazards during PSPS event is the potential for tree fall into line" (p. 956). a. Explain "one of the biggest hazards during PSPS event" in terms of risk (e.g., likelihood, consequence).	Based on PG&E's review of potential ignition events during a PSPS event, vegetation related hazards pose the highest risk for ignitions. Please reference Table 5 and Table 6 of the Quarterly Data Report PG&E submits to the OEIS, where all of the ignitions are listed, including those that pose the highest risk for ignition. PG&E has incorporated tree strike potential and vegetation tags into its PSPS guidance	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-31 – PSPS Wind Threshold Change Evaluations

337	OEIS	004	OEIS_004	11	OEIS_004_Q11	Regarding RSE (Risk Buy-down) information required by the WMP Guidelines The 2023-2025 WMP Guidelines make specific requests for RSE, optimization of risk reduction and cost, and prioritization decisions: 7.1.4.1 Identifying and Evaluating Mitigation Initiatives	a. PG&E met with Energy Safety to discuss this data request on May 11, 2023. During that meeting, PG&E confirmed that "RSE" and "risk buydown" are distinct terms with different meanings. In its request, Energy Safety used the term "RSE" to describe the calculation of the total risk reduced divided by the cost of the mitigation in a given year. PG&E discussed how this	Colin Lang	5/4/2023	5/19/2023	5/19/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	7.1.4	Wildfire Mitigation Strategy Development	Identifying and Evaluating Mitigation Initiatives
338	OEIS	004	OEIS_004	12	OEIS_004_Q12	Regarding the PG&E framework for PSPS risk The sections 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	a. (i) The details on the inputs to the PSPS-L model are shown in Appendix B figures PG&E-B-3 and PG&E-B-4 and full documentation provided as part of "WMP-Discovery2023_DR_OEIS_001-Q007Atch03CONF.pdf," submitted to the Office of Energy Infrastructure and Safety on April 10, 2023.	Colin Lang	5/4/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	6.2	Risk Methodology and Assessment	Risk Analysis Framework
339	OEIS	004	OEIS_004	13	OEIS_004_Q13	Regarding PG&E's Asset Tracking Database While PG&E provided information in the 2023-25 WMP's Appendix F on its overall progress in Asset Inventory Data Gaps, it is not clear what PG&E's progress is on the high-risk electric distribution assets, such as primary conductors and poles, that are not in the Asset Registry and	In responding to this request, PG&E is unfamiliar with the term "High Fire Risk Districts" and assumes this is a reference to "High Fire Risk Areas" (HFRA). a. As stated in response to Subpart (d) of "WMP-Discovery2023_DR_OEIS_003-Q010.pdf", PG&E is not presently able to quantify the number of assets missing	Colin Lang	5/4/2023	5/23/2023	5/23/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-33 – Progress on Filling Asset Inventory Data Gaps
340	OEIS	004	OEIS_004	14	OEIS_004_Q14	Regarding PG&E's Use of Downed Conductor Detection (DCD) and Partial Voltage Detection (PVD) a. Provide any analysis completed on reliability impacts due to DCD, including: i. The number of outages that occurred due to DCD in 2022 and 2023	a. Data as of May 4th, 2023 for 2022-2023 DCD Outages: i. 17 outages have occurred with DCD settings enabled. ii. The table below matches outage causes to the Ignition Drivers used in Table 6 of the 2022 Q4 Quarterly Data Report.	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	0	N/A	8.1.2.10.1	Grid Design and System Hardening	Downed Conductor Detection Devices
341	OEIS	004	OEIS_004	15	OEIS_004_Q15	Regarding Feasibility Constraints PG&E must provide an explanation of how, if at all, feasibility constraints impact the decision making of its Wildfire Governance Steering Committee in selecting a portfolio of mitigation measures that deviates from the risk informed prioritization. This should include:	PG&E respectfully objects to this request to the extent the request incorrectly implies PG&E does not use a "risk-informed prioritization" when selecting wildfire mitigations. As described throughout the 2023-2025 WMP, and specifically in Section 7.1.4.2, we begin developing our list of proposed mitigations by analyzing risk events, risk drivers,	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations
342	OEIS	004	OEIS_004	16	OEIS_004_Q16	Regarding Effectiveness of EPSS a. Provide the formulas and calculations used by PG&E to determine the effectiveness of EPSS. b. Provide analysis demonstrating adequate overlap between EPSS risk and wildfire risk to ensure PG&E's mitigations are directly addressing wildfire risk opposed to reliability.	a. The 2022 EPSS Ignition Reduction is calculated using the formula below: 1 − 2022 (2018 − 2020) Ignitions	Colin Lang	5/4/2023	5/9/2023	5/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	2	N/A	8.1.8.1.1	Grid Design, Operations, and Maintenance	Protective Equipment and Device Settings
343	OEIS	004	OEIS_004	17	OEIS_004_Q17	Regarding PG&E's Undergrounding Program a. Provide the cumulative V2 and V3 risk scores of the 2022 WMP vs. 2023 WMP undergrounding scope for 2023-2026. This should not include nor account for feasibility. b. Provide the analysis on the remaining risk of the miles no longer scoped for undergrounding,	a. PG&E interprets cumulative risk score as total risk score of each circuit segment based on the 2021 WDRM v2 and the 2022 WDRM v3. Please note, for the 2022 WMP and 2023 WMP workplans, the total risk scores are provided at the CPZ-level, however, the entire CPZ may not be scoped in the workplan.	Colin Lang	5/4/2023	5/9/2023	5/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_004.zip	2	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
344	TURN	012	TURN_012	1	TURN_012_Q1	1. Please confirm that the Simplified Wildfire Risk Spend Efficiency (SWRSE) and Wildfire Feasibility Expenditure (WFE) measures discussed on page 968 of PG&E's WMP: a. Are only calculated by PG&E for undergrounding projects; and b. Cannot be used to compare the cost-effectiveness of undergrounding projects with any other	a) Yes. b) Correct, the intent of calculating SWRSE and WFE was to support the selection process for targeted undergrounding projects only. c) We agree with a and b as stated above, with additional clarification about how WFE	Tom Long	5/5/2023	5/11/2023	5/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_012.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations
345	TURN	012	TURN_012	2	TURN_012_Q2	2. Comparing the wildfire mitigation work proposed in PG&E's WMP with the wildfire mitigation work proposed in PG&E's test year 2023 GRC (A.21-06-021): a. Please describe any differences in wildfire mitigation programs proposed or volume of wildfire mitigation work proposed between the WMP and GRC for the years 2023-2025; and	The table below lists the wildfire mitigation programs proposed in the WMP and the GRC for the years 2023-2025 and describes differences between the two. The information provided below consists of summaries of longer discussions provided in either the WMP or the GRC.	Tom Long	5/5/2023	5/12/2023	5/12/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_012.zip	0	N/A	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities
346	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_004	1	CPUC - SPD (Safety Policy Division)_004_Q1	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:	Please find the requested information attached as "WMP-Discovery2023_DR_SPD_004-Q001Atch01.xlsx." Please Note: For column E (FPI), the Fire Potential Index (FPI) rating is only assigned to locations in	Henry Sweat	5/5/2023	5/19/2023	5/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_004.zip	1	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-06 – Addressing Increase in Risk Events
347	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_004	2	CPUC - SPD (Safety Policy Division)_004_Q2	In addition to the data requested above, please add the following data columns for each ignition: 1."HFTD" – Classify each ignition as whether it was located in a "Zone 1," "Tier 2" or "Tier 3", or "Non-HFTD" 2."Fire Potential Index" – Provide the Fire Potential Index for the location on the day of each	Please find the requested information attached as "WMP-Discovery2023_DR_SPD_004-Q001Atch01.xlsx." a. The requested information is identified in column H. b. The requested information is identified in column E.	Henry Sweat	5/5/2023	5/19/2023	5/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_004.zip	0	N/A	Appendix D	Areas for Continued Improvement	ACI PG&E-22-06 – Addressing Increase in Risk Events
348	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_004	3	CPUC - SPD (Safety Policy Division)_004_Q3	Provide the total number of circuit mile-days for each Fire Potential Index rating per year starting in 2014.	Please find the requested information below. This analysis was completed by first counting the number of days each Fire Index Area (FIA) was forecast at a certain rating per year. Those day counts were then multiplied by the number of OH line miles in each FIA to provide the circuit mile-days.	Henry Sweat	5/5/2023	5/19/2023	5/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_004.zip	0	N/A	8.3.6	Situational Awareness and Forecasting	Fire Potential Index
349	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_004	4	CPUC - SPD (Safety Policy Division)_004_Q4	Provide the total number of days per year for each Fire Potential Index rating for each Fire Index Area starting in 2014.	Please find the requested information below. This analysis was completed by counting the number of days each Fire Index Area (FIA) was forecast at a certain rating per year. Please note that between 2014 and 2016 we did not record FIA ratings below R4, and	Henry Sweat	5/5/2023	5/19/2023	5/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_004.zip	0	N/A	8.3.6	Situational Awareness and Forecasting	Fire Potential Index
350	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_004	5	CPUC - SPD (Safety Policy Division)_004_Q5	Provide the total number of circuit mile-days for each Fire Potential Index rating in the HFTD per year starting in 2014.	Please find the requested information below. This analysis was completed by first counting the number of days each Fire Index Area (FIA) was forecast at a certain rating per year. Those day counts were then multiplied by the number of OH line miles in each FIA and the HFTD to provide the circuit miledays.	Henry Sweat	5/5/2023	5/19/2023	5/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_004.zip	0	N/A	8.3.6	Situational Awareness and Forecasting	Fire Potential Index
351	CPUC - SPD (Safety Policy Division)	004	CPUC - SPD (Safety Policy Division)_004	6	CPUC - SPD (Safety Policy Division)_004_Q6	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.	In general, we have been evaluating our performance metrics against indicators of elevated FPI days (e.g., R3 and above) for the last several years as well as red flag warning days. To provide a more specific example, we are normalizing for weather in the EPSS	Henry Sweat	5/5/2023	5/19/2023	5/17/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_004.zip	0	N/A	8.3.6	Situational Awareness and Forecasting	Fire Potential Index
352	CalPA	Set WMP-24	CalPA_Set WMP-24	1	CalPA_Set WMP-24_Q1	In reference to your response to Question 11 of DR CalAdvocates-PGE-2023WMP-16, on the excel spreadsheet WMP-Discovery 2023_DR_016-Q011Atch01, a) On tabs (a) through (e), please identify the circuits with OH to UG conversion projects that have no adjacent circuit ties.	In the referenced attachment, columns (f) and (g) are the average loading for individual circuits that are adjacent to circuits in (d) and (e) respectively. For example, Anderson 1101 is adjacent to a circuit being undergrounded. The average loading is provided for Anderson 1101 in (f), but Anderson 1101 is not listed in (a) through (e) because	Holly Wehrman	5/9/2023	5/12/2023	5/11/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_024.zip	2	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment
353	MGRA	Data Request No. 5	MGRA_Data Request No. 5	1	MGRA_Data Request No. 5_Q1	Is the sole source of this POI data the machine learning algorithm described in WDRM documentation? If not what other inputs go into the POI?	Yes, the POI data shown is the result of the process and data described in section 6.2.1 and shown in Table PG&E 6.2.1-1.	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_005.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
354	MGRA	Data Request No. 5	MGRA_Data Request No. 5	2	MGRA_Data Request No. 5_Q2	Is the fine-grained POI distribution a result of the localization of specific historical outages, characteristics of assets or environment, or both?	The fine-grained features (sharp contrasts in values between neighboring pixels) in PG&E's risk model outputs are a product of finely varying predictive covariates, including asset characteristics and environmental attributes. Please see PG&E's response to Question 4 of this Data Request for an explanation of how historical outages may influence fine-grained localization.	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_005.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
355	MGRA	Data Request No. 5	MGRA_Data Request No. 5	3	MGRA_Data Request No. 5_Q3	Which of the following characteristics is known or suspected to contribute to the fine-grained localization of POI shown above, and to what degree: a. Vegetation b. Tree density and height	The data representing the items listed in parts a through e all contribute, in varying degrees depending on location and geography, to the fine-grained localization seen in PG&E's risk modeling outputs, including the spatial view provided by MGRA. Fine grained localization may result where locations of significant covariate variability exist in PG&E's service territory (e.g. a	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_005.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
356	MGRA	Data Request No. 5	MGRA_Data Request No. 5	4	MGRA_Data Request No. 5_Q4	As an example of "localized outage" effects, if a vehicle were to collide with a utility pole and cause an outage in the boundary of the image above, and if the POI were to be recalculated, would the area where the outage occurred show an elevated POI? Or would conversely the incremental increase risk of vehicle collision outage be generally distributed over the entire	This type of outage would be classified into the Contact From Object "third party vehicle" subset as listed in Table PG&E-6.2.1-1. In reality, a single accident does not have very much sway over the third-party vehicle model one way or another because there are hundreds of historical events already contributing to the result. However, we can say that the additional data point would	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_005.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
357	MGRA	Data Request No. 5	MGRA_Data Request No. 5	5	MGRA_Data Request No. 5_Q5	Are fire weather winds included in the WDRM v3 POI model in any other manner than that described in WDRM v2 discussion, in which aggregated yearly variables such as annual maximum or annual days over peak are used as explanatory variables?	Yes. In WDRM v3, day-of-event wind speed and fuel conditions are significant covariates in the probability of ignition given an outage model, which is trained on the conditions at the locations and on the day of each outage. Wind and other contributors to "fire weather" conditions are also prominent in the consequence calculations in WDRM v3.	Joseph Mitchell	5/10/2023	5/15/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_005.zip	0	N/A	Appendix C / 6.4.1.1, 6.4.1.2	Risk Methodology and Assessment	Geospatial Maps of Top Risk Areas Within the HFRA Proposed Updates to HFTD
358	CalPA	Set WMP-25	CalPA_Set WMP-25	1	CalPA_Set WMP-25_Q1	With reference to Question 10 of data request CalAdvocates-PGE-2023WMP-16, please augment your response by including partial outages as well as circuit outages (see definitions above). Specifically: please provide an Excel sheet listing each circuit that had outages (including both circuit outages and partial outages) that occurred from 2020 to 2022 in any HFTD area. The	Please see "WMP-Discovery2023_DR_CalAdvocates_025-Q001Atch01.xlsx" for information responsive to items (k)-(q).	Holly Wehrman	5/11/2023	5/18/2023	5/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_025.zip	1	N/A	QDR	N/A	N/A
359	OEIS	005	OEIS_005	1	OEIS_005_Q1	Regarding Maturity Survey response to Sec 6.1.2 Question #8 Regarding the Maturity Survey response to Section 6.1.2. Question #8, PG&E answered "yes". What sections of its Company Emergency Response Plan (CERP) does PG&E provide a discussion of gaps, limitations, and improvement areas with remedial or corrective action plans as	The CONFIDENTIAL attachments are being provided pursuant to the accompanying confidentiality declaration. Please reference Section Six "After Action Reports" in the 2022 CERP Wildfire Annex (published April 1, 2022), included as attachment "WMP Discovery2023_DR_OEIS_005-	Colin Lang	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_005.zip	3	N/A	Maturity Survey	Maturity Survey	Maturity Survey
360	OEIS	005	OEIS_005	2	OEIS_005_Q2	Regarding Maturity Survey response to Sec 6.1.4 Question #2 Regarding the Maturity Survey response to Section 6.1.4 Question #2, PG&E answered "yes" that an external third party evaluation is conducted every five years. Please provide a copy of the most recent third party evaluation.	PG&E conducts biannual public meetings with public safety partners, elected officials, and other interested parties, to solicit feedback related to the company's emergency response plan (CERP). Although feedback has been solicited no formal evaluations have been received.	Colin Lang	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_005.zip	0	N/A	Maturity Survey	Maturity Survey	Maturity Survey
361	OEIS	005	OEIS_005	3	OEIS_005_Q3	Regarding Maturity Survey response to Sec 6.1.4 Question #7 Regarding the Maturity Survey response to Section 6.1.4 Question #7, PG&E answered "yes" that Subject Matter Expert (SME) partners review and evaluate its plan every five years. Please provide a copy of the most recent SME evaluation(s).	PG&E conducts annual reviews with Subject Matter Experts to evaluate the CERP and its associated functional and hazard specific annexes. The process for this annual review is documented in "WMP-Discovery2023_DR_OEIS_005-Q003Atch01CONF.pdf" Please note, these review sessions are considered working meetings and do not result	Colin Lang	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_005.zip	1	N/A	Maturity Survey	Maturity Survey	Maturity Survey
362	TURN	013	TURN_013	1	TURN_013_Q1	1. Following up on TURN DR 10-2(b) and PG&E's response: a. Please explain how PG&E determined that a risk rank per the V3 risk model above 720 constitutes the top 20% of risk ranked segments? Why does 720 represent the 20% threshold? Please explain. Please provide	a. The top 20 percent of risk ranked circuit segments is dependent on the number of circuit segments analyzed in each WDRM model. For WDRM v3, the model includes all circuit segments across PG&E's entire overhead distribution system, which is 11,172 circuit segments (see WMP-Discovery2023_DR_TURN_011-Q001Atch01, tab: SH_composite_cs_summary).	Tom Long	5/11/2023	5/16/2023	5/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/TURN_013.zip	0	N/A	8.1.2.2	Grid Design, Operations, and Maintenance	Undergrounding of Electric Lines and/or Equipment
363	Green Power Institute (GPI)	002	Green Power Institute (GPI)_002	1	Green Power Institute (GPI)_002_Q1	Please provide: - The number of trees removed in each year from 2019-2022 and the program under which the removals occurred. - The number of planned tree removals for 2023, 2024, and 2025, and the program under which	a. Year Routine Second Patrol EVM	Zoe Harrold	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/GPI_002.zip	0	N/A	8.2.2.2.4	Vegetation Management and Inspections	Tree Removal Inventory
364	Green Power Institute (GPI)	002	Green Power Institute (GPI)_002	2	Green Power Institute (GPI)_002_Q2	Please provide the number of distribution line miles PG&E will perform trimming on to achieve enhanced clearances (> 12').	There are approximately 40,000 HFTD and HFRA miles in PG&E service territory. PG&E performs inspection on all line miles within HFRA and HFTD areas. While PG&E does not have a program dedicated to enhanced clearances, we are following the prescription in General Order 95, Rule 35 and our Distribution Standards which recommends a minimum 12-feet of	Zoe Harrold	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/GPI_002.zip	0	N/A	8.2.3.3	Vegetation Management and Inspections	Clearance
365	Green Power Institute (GPI)	002	Green Power Institute (GPI)_002	3	Green Power Institute (GPI)_002_Q3	Please provide any existing quantitative metrics (e.g. kg, truckloads, etc.) on the total amount of vegetation management "waste" (or residues) produced each year from 2020 – 2022, and the annual amounts that are disposed of at recycling facilities, landfills, biomass facilities, or other facilities.	PG&E does not track vegetation management "waste" data for all VM programs. Vegetation management "waste" data is available for PG&E contracted wood yards, which include wood debris from various programs, and the Wildfire Wood Management program. This data is not available prior to 2021.	Zoe Harrold	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/GPI_002.zip	0	N/A	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management
366	Green Power Institute (GPI)	002	Green Power Institute (GPI)_002	4	Green Power Institute (GPI)_002_Q4	Please provide the number of customer requests to retain woody biomass resulting from vegetation management activities on private property, state property, and federal property.	We do not track customer requests to retain woody biomass resulting from Vegetation Management activities.	Zoe Harrold	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/GPI_002.zip	0	N/A	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management

367	Green Power Institute (GPI)	002	Green Power Institute (GPI)_002	5	Green Power Institute (GPI)_002_Q5	Please describe current agreements and any recent (2021-Present) communications with state and federal agencies regarding fuels and slash management practices on state and federal lands, respectively.	The U.S. Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), and California State Parks (CASP) have the authority to require specific wood and debris management (e.g., wood or log removal, decking, chipping up to a certain diameter, piling) be incorporated into proposals for Vegetation Management work on their lands. Several public agencies, including USFS, have provided PG&E with their expectations for wood and debris	Zoe Harrold	5/11/2023	5/16/2023	5/16/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/GPI_002.zip	0	N/A	8.2.3.2	Vegetation Management and Inspections	Wood and Slash Management
368	MGRA	Data Request No. 6	MGRA_Data Request No. 6	1	MGRA_Data Request No. 6_Q1	PG&E was requested to provide an Excel spreadsheet containing outage IDs. These were delivered with an OutageID totally unrelated to the DOutageID that it lists in its outage data provided as a result of DR1. Please provide the file sent in reponse to DR4-08 as soon as possible.	"WMP-Discovery2023_DR_MGRA_006-Q001Atch01.xlsx" contains a new column called "DOutageID" that will align with the same outage identifier (ID) from DR1.	Joseph Mitchell	5/15/2023	5/18/2023	5/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_006.zip	1	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
369	MGRA	Data Request No. 6	MGRA_Data Request No. 6	2	MGRA_Data Request No. 6_Q2	Please add (or re-add) a simple "cause" attribute to this outage file.	"WMP-Discovery2023_DR_MGRA_006-Q001Atch01.xlsx" contains a new column called "basic_cause" as requested.	Joseph Mitchell	5/15/2023	5/18/2023	5/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_006.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
370	MGRA	Data Request No. 6	MGRA_Data Request No. 6	3	MGRA_Data Request No. 6_Q3	Likewise, please add a 'cause' attribute to the outage data in the GIS files issued in response to MGRA DR1. Alternatively, provide an Excel file in which cause is cross-referenced to DoutageID.	"WMP-Discovery2023_DR_MGRA_006-Q001Atch01.xlsx" includes both "basic_cause" and "DOutageID" for cross-referencing.	Joseph Mitchell	5/15/2023	5/18/2023	5/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_006.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
371	MGRA	Data Request No. 6	MGRA_Data Request No. 6	4	MGRA_Data Request No. 6_Q4	If there are refusals or delays to the above please provide the EPSS data in a kmz format similar to that provided in response to MGRA DR2-Question 8.	Not applicable.	Joseph Mitchell	5/15/2023	5/18/2023	5/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/MGRA_006.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
372	CPUC - SPD (Safety Policy Division)	005	CPUC - SPD (Safety Policy Division)_005	1	CPUC - SPD (Safety Policy Division)_005_Q1	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. 340 and p. 968), to date and looking forward: a.What was the average cost per circuit mile for undergrounding in 2022, 2021, and 2020, in the HFTD, non-HFTD, and territory wide?		Kevin Miller	5/15/2023	6/12/2023				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	2	CPUC - SPD (Safety Policy Division)_005_Q2	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 internal documentation on that format so SPD can understand the cost estimate.		Kevin Miller	5/15/2023	6/12/2023				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	3	CPUC - SPD (Safety Policy Division)_005_Q3	3.How is PG&E incorporating subsurface variability (e.g., encountering hard rock, slope, or other conditions presenting significant, physical obstacles) into undergrounding cost calculations? Provide an example.		Kevin Miller	5/15/2023	6/12/2023				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	4	CPUC - SPD (Safety Policy Division)_005_Q4	4.PG&E has stated that CalTrans 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 CalTrans trench depth requirements for 2023-2025?		Kevin Miller	5/15/2023	6/12/2023				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	5	CPUC - SPD (Safety Policy Division)_005_Q5	5.How does service life impact cost calculation?		Kevin Miller	5/15/2023	6/12/2023				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	6	CPUC - SPD (Safety Policy Division)_005_Q6	6.What is the estimated multiplier for conversion from overhead (OH) line to underground (UG) line (e.g., 1.25 Mile OH converts to 1.00 Mile UG)? a.How was this conversion rate derived? b.How was it established as the accepted/operating average for project planning purposes?		Kevin Miller	5/15/2023	6/12/2023				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	7	CPUC - SPD (Safety Policy Division)_005_Q7	7.On pilot projects completed to date: a.What is the total all-in cost per mile? 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 this exact format:		Kevin Miller	5/15/2023	6/12/2023				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	8	CPUC - SPD (Safety Policy Division)_005_Q8	8.Please provide WMP-Discovery2023_DR_TURN_007-Q001Atch01CONF.xlsx, used to address TURN Data Request 7, Question 1, discussing RSE calculation for system hardening.		Kevin Miller	5/15/2023	6/12/2023				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	9	CPUC - SPD (Safety Policy Division)_005_Q9	9.On page 151 of the 2023-2025 WMP, PG&E states that the WDRM v3 ignition source is "PG&E's Historical Ignitions Data, 2015-2021 (approximately 2,500 CPUC-reportable ignitions and approximately 1,900 non-reportable ignitions)." a.Describe how PG&E is using the ~1,900 non-CPUC-reportable ignitions in its risk modeling. b.Provide this ~1,900 non-CPUC-reportable ignition data as a spreadsheet in format similar to		Kevin Miller	5/15/2023	6/12/2023				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	1	CPUC - SPD (Safety Policy Division)_006_Q1	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 EPSS, Undergrounding and Covered Conductor (CC), PG&E stated that CC is probably the most "mature" mitigation effectiveness as the effectiveness based on empirical data and cross utility collaboration, EPSS is the second most as it is based on empirical data, and that UG is the least mature mitigation effectiveness as	PG&E notes that the calculation of risk mitigation effectiveness can be computed in various ways, and taking different approaches to calculate effectiveness for different mitigations does not necessarily constitute a discrepancy. The mitigation effectiveness calculation for covered conductor was articulated as being the most "mature" because the joint IOUs agreed upon a common methodology of using a combination of estimated	Kevin Miller	5/17/2023	5/22/2023	5/22/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_006.zip	0	N/A	8.1.8.1.1	Grid Design, Operations, and Maintenance	Protective Equipment and Device Settings
382	CPUC - SPD (Safety Policy Division)	006	CPUC - SPD (Safety Policy Division)_006	2	CPUC - SPD (Safety Policy Division)_006_Q2	2.PG&E asserted that PG&E is addressing the risk from secondary lines and service drops in part via replacing the secondary with covered aerial conductor and breakaway connectors at service drops [see PG&E's response to Question 4.b of SPD_PG&E_2024_003 for additional description]. PG&E also stated that there may need to be a messaging update because the 99% mitigation effectiveness is only relevant to angle to primary lines not their entire wildfire risk	a. As discussed during a staff meeting with SPD on May 3, 2023, PG&E currently states in talking points, the PG&E website, and in customer materials that "Placing overhead powerlines underground reduces ignition risk by approximately 99% in that location." PG&E intended the phrase "in that location" to articulate that the 99% risk mitigation applied to the areas, or the circuit segments, actually being	Kevin Miller	5/17/2023	5/22/2023	5/22/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_006.zip	0	N/A	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	1	CPUC - SPD (Safety Policy Division)_007_Q1	1.What types of covered conductor (size of conductor, material of conductor, voltage rating of conductor – if PG&E can point to product data from a manufacturer, this would be preferred) does PG&E use and does PG&E choose different types of covered conductor types near coastal areas?	The CONFIDENTIAL attachments are being provided pursuant to the accompanying confidentiality declaration. Please refer to Table 18 – Primary Aluminum ACSR and Copper XLPE Tree Wire (page 10 of 12) in PG&E standard 059626, "Conductors for Overhead Lines" (WMP_Discovery2023_DR_SPD_007-Q001Atch01CONF.pdf) for the types of covered	Henry Sweat	5/17/2023	5/18/2023	5/18/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_007.zip	3	N/A	8.1.2.1	Grid Design and System Hardening	Covered Conductor Installation – Distribution
384	OEIS	006	OEIS_006	1	OEIS_006_Q1	Regarding PG&E's response to OEIS DR 2 Question 10, Attachment 1: a. Explain the difference between a Field Safety Reassessment and a Planned Field Safety Reassessment. b. In what instances would PG&E extend a work order due date through a Field Safety Reassessment? Provide all supporting documentation and criteria, including any procedures and inspection protocols demonstrating decision-making. c. In what instances would a Standards Change lead to extending a work order due date? Provide all supporting documentation and criteria, including any procedures and inspection protocols demonstrating decision-making. Additionally, provide examples in which this has occurred, including any sweeping changes. d. Include any criteria that would fall under "Other reassessment" as seen in Column I "Reason for reinspection (if applicable)". e. PG&E included three Priority A level work orders within the tab labeled "Table 13 – Open". i. Provide the work order documentation associated with each of these tags (i.e. Electric Corrective notification). ii. Are these tags still open? If not, provide the respective completion date for when each tag was closed, as applicable. f. Within non-HFTD, PG&E included 13 Priority H level work orders that were closed in 2022 and 52 that are still open. i. Explain what circumstances would lead to a Priority H tag within non-HFTD. ii. Provide a list of the projects in which the 13 closed work orders were associated with, including details on the associated mitigation being used. iii. Provide a list of the projects in which the 52 work orders were associated with, including details on the associated mitigation being used. g. Regarding PG&E's ignition risk notifications: i. Provide documentation and/or procedures PG&E uses to determine whether or not a work order meets ignition risk criteria, including any relevant thresholds (equipment type, risk score, etc.). This should also include an explanation as to how PG&E prioritizes within the categorization of ignition risk tags (i.e. planning for timing of correction based on known risk). ii. Provide PG&E's list of Facility-Damage-Action (FDA) codes for determining which ones present an ignition risk, as discussed in response to CalAdvocates Data Request 19 Question 8.		Dakota Smith	5/18/2023	5/23/2023				8.1.7	Open Work Orders	N/A
385	OEIS	006	OEIS_006	2	OEIS_006_Q2	Regarding PG&E's Other Data Requests: a. Provide the following confidential attachments from CalAdvocates Data Requests: i. Attachment 1 in response to Data Request 19 Question 13. ii. Attachment 1 in response to Data Request 21 Question 3. iii. Attachment 1 in response to Data Request 22 Question 7.	The CONFIDENTIAL attachments are being provided pursuant to the accompanying confidentiality declaration. a. Please see "WMP-Discovery_DR_OEIS_006-Q002Atch01CONF.zip" for the requested confidential attachments previously provided to Cal Advocates. b. Please see "WMP-Discovery_DR_OEIS_006-Q003Atch02CONF.zip" for the	Dakota Smith	5/18/2023	5/23/2023	5/23/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_006.zip	2	N/A	N/A	N/A	N/A
386	OEIS	006	OEIS_006	3	OEIS_006_Q3	Regarding PG&E's response to TURN's Data Request 7, Question 3: a. For each of the circuit segments listed in part (b), provide the following via Excel: i. WPE score ii. SWRSE iii. Feasibility scores	Please see attachment "WMP-Discovery2023_DR_OEIS_006-Q003Atch01.xlsx" for the requested circuit segment detail. Please note the following: • There are differences between the WDRM v2 and the WDRM v3 and, as a result, there are five circuit segments that have a V3 risk score but do not have a V2 risk score.	Dakota Smith	5/18/2023	5/23/2023	5/23/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/OEIS_006.zip	1	N/A	8.1.2.2	Grid Design and System Hardening	Undergrounding of Electric Lines and/or Equipment – Distribution
387	OEIS	007	OEIS_007	1	OEIS_007_Q1	Q1. Regarding Services provided to customers due to PSPS and wildfire emergencies In Section 8.4.6, the full extent of services PG&E provides to customers due to PSPS and wildfire emergencies is unclear. Describe PG&E's full scope of services for each service listed (a, b, c, etc.) below as it relates to PSPS and wildfire emergencies and the segment of customers served for that service. In its discussion of each service, address the questions under each listed		Alan Solomon	5/24/2023	5/30/2023				8.4.6	Emergency Preparedness	Customer Support in Wildfire and PSPS Emergencies
388	OEIS	008	OEIS_008	1	OEIS_008_Q1	Regarding Vegetation Management Objectives In Table 8-12 of PG&E's 2023-2025 WMP, it states that one of its objectives is to "Determine value of a multi-year historical tree data set." a. Expand on what is meant by "a multi-year historical tree data set." b. How might the data for this set be gathered? (e.g., inspection reports, remote sensing, etc.)		Dakota Smith	5/25/2023	5/31/2023				8.2.1.1	Vegetation Management	EVM
389	OEIS	008	OEIS_008	2	OEIS_008_Q2	Regarding Undergrounding Workplan Targets a. Explain why PG&E has reduced undergrounding targets provided within its workplan when comparing PG&E's 2022 WMP to the 2023-2025 WMP. b. Provide two versions of an updated Table PG&E-8.1.2-3 from PG&E's 2023-2025 WMP in which the Top 20% is based on risk model output scores from V2 and V3, respectively, opposed		Dakota Smith	5/25/2023	5/31/2023				8.1.2.3	Grid Design and System Hardening	Distribution Pole Replacements and Reinforcements
390	OEIS	008	OEIS_008	3	OEIS_008_Q3	Regarding Inspection Find Rates a. Provide PG&E's work order find rate for distribution detailed and patrol inspections respectively, broken down by quarter from 2018 to 2022.		Dakota Smith	5/25/2023	5/31/2023				8.1.3.2	Asset Inspections	Distribution Asset Inspections

391	OEIS		008	OEIS_008	4	OEIS_008_Q4	Regarding PG&E's response to TURN DR 10 Question 4 a. Provide Attachment 1 with the following additional columns: i. Length of line (mi) ii. V3 Risk Score iii. V3 Risk Rank		Dakota Smith	5/25/2023	5/31/2023					Appendix D	Areas for Continued Improvement	ACI PG&E-22-34 – Revise Process of Prioritizing Wildfire Mitigations	
Pre-Discovery 01		CalPA	Set WMP-01	CalPA_Set WMP-01	1	CalPA_Set WMP-01_Q1	Please provide a copy of each WMP-related document, submission, or report you submit to the Office of Energy Infrastructure Safety (Energy Safety) in 2023 that is related to your WMP. Provide the copy to Cal Advocates within one business day of the document's submittal to Energy Safety. (If you have submitted the document to Energy Safety in 2023 prior to this data request, please provide a copy as soon as possible and no later than 10 business days from the issuance	GENERAL OBJECTIONS TO THIS SET OF DATA REQUESTS PG&E objects to the instructions or definitions in the set of data requests entitled CalAdvocates-PGE-2023WMP-01 that purport to impose any obligations greater than those provided by the applicable rules and decisions of the Commission or and any other statutes, orders, rules, or laws limiting the regulatory authority and jurisdiction of the Commission. In particular, PG&E objects to	Holly Wehrman	2/7/2023	2/14/2023	2/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_001.zip	0	N/A	N/A	N/A	N/A
Pre-Discovery 02		CalPA	Set WMP-01	CalPA_Set WMP-01	2	CalPA_Set WMP-01_Q2	Please provide a copy of your WMP pre-submission within two business days of its submission to Energy Safety	Attachment "WMP-Discovery2023_DR_CalAdvocates_001-Q02Atch01CONF.pdf" is our WMP pre-submission to Energy Safety. Please note that this document is not our final WMP submission and may be subject to revision before the final WMP is submitted in March. Additionally, we have designated this entire submission as confidential to align with Energy Safety's pre-submission process and guidelines, which stipulate that the pre-submission	Holly Wehrman	2/7/2023	2/15/2023	2/15/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_001.zip	1	N/A	N/A	N/A	N/A
Pre-Discovery 03		CalPA	Set WMP-01	CalPA_Set WMP-01	3	CalPA_Set WMP-01_Q3	Provide a copy of all documents or files that are referenced in your WMP Quarterly Data Reports and submitted to Energy Safety (including but not limited to all PDFs, spatial data files, non-spatial data files, and confidential attachments) on the same business day that the document is sent to Energy Safety.	In addition to all general objections, PG&E specifically objects to this request on the grounds that it is unduly burdensome. PG&E further objects to this request as the information requested is vague, ambiguous, and overbroad. Lastly, PG&E objects to this request on the grounds that it seeks to impose a continuing response obligation on the responding party. Continuing discovery obligations are not permitted under California law. Riles v. Exxon Mobil Corp., 134 Cal.App.4th	Holly Wehrman	2/7/2023	2/14/2023	2/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_001.zip	0	N/A	N/A	N/A	N/A
Pre-Discovery 04		CalPA	Set WMP-01	CalPA_Set WMP-01	4	CalPA_Set WMP-01_Q4	Provide a copy to Cal Advocates of all your confidential responses to WMP discovery requests, on the same business day that you send the documents to the issuer of the discovery request. This includes: a) Confidential responses to WMP discovery requests issued by Energy Safety. b) Confidential responses to WMP discovery requests issued by other entities.	In addition to all general objections, PG&E specifically objects to this request on the grounds that it is unduly burdensome. PG&E further objects to this request as the information requested is vague, ambiguous, and overbroad. Lastly, PG&E objects to this request on the grounds that it seeks to impose a continuing response obligation on the responding party. Continuing discovery obligations are not permitted under California law. Riles v. Exxon Mobil Corp., 134 Cal.App.4th	Holly Wehrman	2/7/2023	2/14/2023	2/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_001.zip	0	N/A	N/A	N/A	N/A
Pre-Discovery 05		CalPA	Set WMP-02	CalPA_Set WMP-02	1	CalPA_Set WMP-02_Q1	Please identify and provide a copy of all quality assurance or quality control (QA/QC) reports conducted by internal entities that were completed since January 1, 2022 and that examined any programs, initiatives, or strategies described in your 2022 WMP Update.	PG&E understands this question to refer to reports from our internal Quality Control, Quality Assurance, and Quality Verification programs as set forth below. System Inspections Department Please see the attachment below for the System Inspections QC Department's daily and weekly dashboards summarization Key Performance Indicators (KPIs) and analysis	Holly Wehrman	2/7/2023	3/7/2023	3/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_002.zip	6	N/A	N/A	N/A	N/A
Pre-Discovery 06		CalPA	Set WMP-02	CalPA_Set WMP-02	2	CalPA_Set WMP-02_Q2	Please identify and provide a copy of all quality assurance or quality control (QA/QC) reports conducted by external entities that were completed since January 1, 2022 and that examined any programs, initiatives, or strategies described in your 2022 WMP Update. External entities include, but are not limited to, consultants, contractors, auditors, court-appointed monitors, and Independent Evaluators.	The PG&E Independent Safety Monitor Status Update Report, dated October 4, 2022, discusses programs and initiatives described in our 2022 WMP. Please find the document here: https://www.cpuc.ca.gov/-/media/cpuc-website/industries and topics/documents/pge/oversight-and-enforcement/ism-status-update-report-q3-2022.pdf.	Holly Wehrman	2/7/2023	3/7/2023	3/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_002.zip	1	N/A	N/A	N/A	N/A
Pre-Discovery 07		CalPA	Set WMP-02	CalPA_Set WMP-02	3	CalPA_Set WMP-02_Q3	Provide an Excel table of all defects in the year 2022 found by Energy Safety's Compliance Branch (as rows) that includes the following information in separate columns. a) Associated circuit name b) Defect type c) Description of defect	Please see attachment "WMP-Discovery2023_DR_CalAdvocates_002-Q03Atch01CONF.xlsx" for a list of all alleged defects identified in December 2021 by the Office of Energy Infrastructure Safety ("Energy Safety"). Please note these defects were issued as notification of defects in March 2022. Please note the following:	Holly Wehrman	2/7/2023	2/22/2023	2/22/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_002.zip	1	N/A	8.1.3	Asset Inspections	N/A
Pre-Discovery 08		CalPA	Set WMP-03	CalPA_Set WMP-03	1	CalPA_Set WMP-03_Q1	Provide an Excel table of all distribution circuits existing as of January 1, 2023 (as rows) that includes the following information in separate columns. a. Circuit name b. Circuit ID number c. Total circuit miles	PG&E is providing the requested distribution information at the circuit level in attachment "WMP-Discovery2023_DR_CalAdvocates_003-Q001Atch01.xlsx." Included in the table below are notes that document assumptions in the methodology for data collection. Where we have not included any notes, the data provided did not require adaptations or assumptions in answering the request. For purposes of this request, "Other HFTD" refers to Zone 1 areas.	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	2	N/A	8.1.3	Asset Inspections	Distribution
Pre-Discovery 09		CalPA	Set WMP-03	CalPA_Set WMP-03	2	CalPA_Set WMP-03_Q2	Provide an Excel table of all transmission circuits existing as of January 1, 2023 (as rows) that includes the following information in separate columns. a. Circuit name b. Circuit ID number c. Total circuit miles	PG&E is providing the requested transmission information at the circuit level in the attachment named "WMP-Discovery2023_DR_CalAdvocates_003-Q001Atch01.xlsx." Included in the table below are notes that document assumptions in the methodology for data collection. Where we have not included any notes, the data provided did not require adaptations or assumptions in answering the request. For purposes of this	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	8.1.3	Asset Inspections	Transmission
Pre-Discovery 10		CalPA	Set WMP-03	CalPA_Set WMP-03	3	CalPA_Set WMP-03_Q3	Provide an Excel table of all distribution circuits existing as of January 1, 2022 (as rows) that were removed or decommissioned in 2022, either partially or entirely. This includes permanent removal, removal of overhead lines that were moved underground, or overhead lines that were decommissioned but not physically removed. Include the following information in separate columns.	Attached is "WMP-Discovery2023_DR_CalAdvocates_003-Q003Atch01.xlsx", which provides information regarding removals of primary distribution lines in HFTD in 2022, which is the subset of the requested information available at this time. PG&E does not track line removals when relocating overhead to underground, removing secondary services, or removing lines in non-HFTD. Further, our GIS cannot be used to obtain this information retroactively because when	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	1	N/A	8.1.2	Grid Design and System Hardening	Work Performed in 2022
Pre-Discovery 11		CalPA	Set WMP-03	CalPA_Set WMP-03	4	CalPA_Set WMP-03_Q4	Provide an Excel table of all transmission circuits existing as of January 1, 2022 (as rows) that were removed or decommissioned in 2022, either partially or entirely. This includes permanent removal, removal of overhead lines that were moved underground, or overhead lines that were decommissioned but not physically removed. Includes the following information in separate columns.	Please see "WMP-Discovery2023_DR_CalAdvocates_003-Q004Atch01.xlsx.	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	1	N/A	Grid Design and System Hardening	System Hardening	Work Performed in 2022
Pre-Discovery 12		CalPA	Set WMP-03	CalPA_Set WMP-03	5	CalPA_Set WMP-03_Q5	For each WMP initiative listed below, please state how the modeled Wildfire Risk Scores for each circuit or circuit-segment influenced where you performed work in 2022. a. EVM b. Covered conductor installation c. Undergrounding	a. EVM work in 2022 was informed by a modification of the 2021 Wildfire Distribution Risk Model (WDRM). The refined output from the 2021 WDRM is referred to as the EVM Tree-Weighted Prioritization. The EVM Tree-Weighted Prioritization prioritized the high risk CPZs with the associated miles and estimated tree work to produce the 2022 EVM Scope of Work as described in the 2022 WMP Section 7.1.8. In 2022, the goals for the EVM program were: (1) to perform at	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	2022 WMP Section 7.1	Wildfire Mitigation Strategy Development	N/A
Pre-Discovery 13		CalPA	Set WMP-03	CalPA_Set WMP-03	6	CalPA_Set WMP-03_Q6	For each WMP initiative listed below, please state how the modeled Wildfire Risk Scores for each circuit or circuit-segment influenced how work in 2022 was sequenced. a. EVM b. Covered conductor installation c. Undergrounding	The 2022 EVM Scope of Work was based on the prioritization from the 2021 list of circuit protection zones informed by the EVM Tree Weighed Prioritization barring external factors and leveraging efficiency of bundling where possible. b. The circuit segments selected for the installation of covered conductor in the System Hardening program were based on the highest wildfire risk criteria described in response to	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	2022 WMP Section 7.1	Wildfire Mitigation Strategy Development	N/A
Pre-Discovery 14		CalPA	Set WMP-03	CalPA_Set WMP-03	7	CalPA_Set WMP-03_Q7	For each WMP initiative listed below, please state how the modeled Wildfire Risk Scores for each circuit or circuit-segment influence where you plan to perform work in 2023. a. EVM b. Covered conductor installation c. Undergrounding	a. PG&E is not conducting EVM in 2023. b. As described in the 2023 WMP Section 8.1.2.1 "Covered Conductor Installation –Distribution," PG&E's System Hardening program, which includes targeted CC installation, focuses on mitigating potential catastrophic wildfire risk caused by distribution overhead assets. The System Hardening Program applies various mitigations to circuit segments that have the highest wildfire	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
Pre-Discovery 15		CalPA	Set WMP-03	CalPA_Set WMP-03	8	CalPA_Set WMP-03_Q8	For each WMP initiative listed below, please state how the modeled Wildfire Risk Scores for each circuit or circuit-segment influence how work in 2023 will be sequenced. a. EVM b. Covered conductor installation c. Undergrounding	a. PG&E is not conducting EVM in 2023. b. The circuit segments selected for the installation of covered conductor in the System Hardening program were based on the highest wildfire risk criteria described in response to Question 7(b). To then sequence projects, PG&E assesses the dependencies and readiness of each project based on the stage of the work (e.g., design/estimation, permit acquisition,	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
Pre-Discovery 16		CalPA	Set WMP-03	CalPA_Set WMP-03	9	CalPA_Set WMP-03_Q9	For each WMP initiative listed below, please state how the modeled Wildfire Risk Scores for each circuit or circuit-segment influence where you plan to perform work in 2024. a. EVM b. Covered conductor installation c. Undergrounding	a. PG&E is not conducting EVM in 2024. b. Please refer to the response to Question 7b, which also applies to 2024. c. Please refer to the response to Question 7c, which also applies to 2024. d. Please refer to the response to Question 7d, which also applies to 2024. e. For transmission line, there is no targeted work planned in 2024 for grid sectionalization. For	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
Pre-Discovery 17		CalPA	Set WMP-03	CalPA_Set WMP-03_Q10	10	CalPA_Set WMP-03_Q10	For each WMP initiative listed below, please state how the modeled Wildfire Risk Scores for each circuit or circuit-segment influence how work in 2024 will be sequenced. a. EVM b. Covered conductor installation c. Undergrounding	a. PG&E is not conducting EVM in 2024. b. Please refer to the response for Question 8b, which also applies to 2024. c. Please refer to the response for Question 8c, which also applies to 2024. d. Please refer to the response for Question 8d, which also applies to 2024. e. There is no targeted work planned in 2024 for grid sectionalization for both transmission or for	Holly Wehrman	2/7/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_003.zip	0	N/A	7.2	Wildfire Mitigation Strategy Development	Wildfire Mitigation Strategy
Pre-Discovery 18		CalPA	Set WMP-04	CalPA_Set WMP-04	1	CalPA_Set WMP-04_Q1	For each WMP initiative for which you forecast capital expenditures in 2023 to be at least two times actual capital expenditures in 2022, please provide: a) The name of the initiative as it is identified in your 2023-2025 WMP b) The WMP Initiative number in Table 11 of your 2023-2025 WMP c) The name of the initiative as it is identified in your 2022 WMP Update	a) 2023 WMP financials are mapped per WMP Initiative Activities as laid out in Table 11 from Energy Safety. As the 2023 WMP is a new cycle with new mapping of financials by activities that align with the 2023 WMP narrative, there is not an apples-to-apples re-mapping of costs back to the 2022 WMP view. Thus, the comparison can only be made using the 2023 WMP view.	Holly Wehrman	2/7/2023	3/7/2023	3/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_004.zip	0	N/A	Section 4.3	Proposed Expenditures	N/A
Pre-Discovery 19		CalPA	Set WMP-04	CalPA_Set WMP-04	2	CalPA_Set WMP-04_Q2	For each WMP initiative for which you forecast capital expenditures in 2024 to be at least two times actual capital expenditures in 2022, please provide: a) The name of the initiative as it is identified in your 2023-2025 WMP b) The WMP Initiative number in Table 11 of your 2023-2025 WMP c) The name of the initiative as it is identified in your 2022 WMP Update	a) 2023 WMP financials are mapped per WMP Initiative Activities as laid out in Table 11 from Energy Safety. As the 2023 WMP is a new cycle with new mapping of financials by activities that align with the 2023 WMP narrative, there is not an apples-to-apples re-mapping of costs back to the 2022 WMP view. Thus, the comparison can only be made using the 2023 WMP view. Below are the 2023 WMP activities and section numbers where the 2024 capital forecast is at	Holly Wehrman	2/7/2023	3/7/2023	3/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_004.zip	0	N/A	Section 4.3	Proposed Expenditures	N/A
Pre-Discovery 20		CalPA	Set WMP-04	CalPA_Set WMP-04	3	CalPA_Set WMP-04_Q3	For each WMP initiative for which you forecast operating expenditures in 2023 to be at least two times actual operating expenditures in 2022, please provide: a) The name of the initiative as it is identified in your 2023-2025 WMP b) The WMP Initiative number in Table 11 of your 2023-2025 WMP c) The name of the initiative as it is identified in your 2022 WMP Update	a) 2023 WMP financials are mapped per WMP Initiative Activities as laid out in Table 11 from Energy Safety. As the 2023 WMP is a new cycle with new mapping of financials by activities that align with the 2023 WMP narrative, there is not an apples-to-apples re-mapping of costs back to the 2022 WMP view. Thus, the comparison can only be made using the 2023 WMP view. Below are the 2023 WMP activities and section numbers where 2023 operating expense	Holly Wehrman	2/7/2023	3/7/2023	3/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_004.zip	0	N/A	Section 4.3	Proposed Expenditures	N/A
Pre-Discovery 21		CalPA	Set WMP-04	CalPA_Set WMP-04	4	CalPA_Set WMP-04_Q4	For each WMP initiative for which you forecast operating expenditures in 2024 to be at least two times actual operating expenditures in 2022, please provide: a) The name of the initiative as it is identified in your 2023-2025 WMP b) The WMP Initiative number in Table 11 of your 2023-2025 WMP c) The name of the initiative as it is identified in your 2022 WMP Update	a) 2023 WMP financials are mapped per WMP Initiative Activities as laid out in Table 11 from Energy Safety. As the 2023 WMP is a new cycle with new mapping of financials by activities that align with the 2023 WMP narrative, there is not an apples-to-apples re-mapping of costs back to the 2022 WMP view. Thus, the comparison can only be made using the 2023 WMP view. Below are the 2023 WMP activities and section numbers where 2024 operating expense forecasts are at	Holly Wehrman	2/7/2023	3/7/2023	3/7/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_004.zip	0	N/A	Section 4.3	Proposed Expenditures	N/A
Pre-Discovery 22		CalPA	Set WMP-05	CalPA_Set WMP-05	1	CalPA_Set WMP-05_Q1	In response to Data Request CalAdvocates-PGE-2022WMP-31 on September 8, 2022, PG&E provided information regarding its Wildfire 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.	No changes have been made to WDRM v3 since the September 8, 2022 response.	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_005.zip	0	N/A	2022 WMP Section 4.5	Model Metrics and Calculation Methodologies	WDRM v3
Pre-Discovery 23		CalPA	Set WMP-05	CalPA_Set WMP-05	2	CalPA_Set WMP-05_Q2	a) Have you identified transportation corridors within your service territory where failing or failing lines or poles could currently limit egress and/or ingress during an emergency? b) If the answer to part (a) is yes, please describe how you identify such transportation corridors. c) If available, please provide a geospatial data file that contains all current identified transportation corridors with ingress and egress hazards.	a) The potential of failing or failing lines or poles near identified transportation corridors is not currently reflected in our risk modeling. PG&E Public Safety Specialists with experience as career wildland firefighters have reviewed general egress and/or ingress concerns when evaluating circuits or circuit segments for potential system hardening work. b) Not applicable.	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_005.zip	0	N/A	8.1.3	Asset Inspections	N/A
Pre-Discovery 24		CalPA	Set WMP-05	CalPA_Set WMP-05	3	CalPA_Set WMP-05_Q3	Please fill out the attached spreadsheet, CalAdvocates-PGE-2023WMP-05 Attachment 1, requesting information regarding your asset inspections in 2022.	Please see attachment "WMP-Discovery2023_DR_CalAdvocates_005-Q03Atch01.xlsx" for the requested information	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_005.zip	1	N/A	8.1.3	Asset Inspections	Inspections completed in 2022
Pre-Discovery 25		CalPA	Set WMP-05	CalPA_Set WMP-05	4	CalPA_Set WMP-05_Q4	Please augment Table 13 of the non-spatial 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. a. Add the following information in separate columns: i. Name of the associated circuit	a-b. Please see attachments "WMP-Discovery2023_DR_CalAdvocates_005-Q004Atch01.xlsb" for the requested Distribution information and "WMP Discovery2023_DR_CalAdvocates_005-Q004Atch02.xlsx" for the requested Transmission information. c. Please note that columns i, j, k, and l will not be available for Distribution and Transmission circuits until the 2023 Q1 Quarterly Data Report (QDR) because the data is not ready, and due to	Holly Wehrman	2/10/2023	3/10/2023	3/10/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_005.zip	2	N/A	2022 Q4 QDR	P	tags
Pre-Discovery 26		CalPA	Set WMP-06	CalPA_Set WMP-06	1	CalPA_Set WMP-06_Q1	Provide your workplan that describes where you will undertake EVM projects in 2023. This workplan should be in an Excel format, with circuit-segments as rows. Please include the following information in separate columns in the Excel spreadsheet at a minimum: a) Circuit name b) Circuit ID number	The EVM program concluded at the end of 2022. There is no EVM workplan for 2023	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2023-2025 WMP 8.2.3	Vegetation Management	EVM
Pre-Discovery 27		CalPA	Set WMP-06	CalPA_Set WMP-06	2	CalPA_Set WMP-06_Q2	Provide your workplan that describes where you will undertake EVM projects in 2024. This workplan should be in an Excel format, with circuit-segments as rows. Please include the following information in separate columns in the Excel spreadsheet at a minimum: a) Circuit name b) Circuit ID number	The EVM program concluded at the end of 2022. There is no EVM workplan for 2024.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2023-2025 WMP 8.2.3	Vegetation Management	EVM
Pre-Discovery 28		CalPA	Set WMP-06	CalPA_Set WMP-06	3	CalPA_Set WMP-06_Q3	In response to Data Request CalAdvocates-PGE-2022WMP-11, Question 2, March 3, 2022, PG&E provided its 2022 EVM workplan. Please provide an updated version of this workplan that lists the actual EVM mileage performed in each circuit-segment in 2022 as a new column. Rows should be added as needed to cover all circuit-segments where you performed EVM work in 2022 (even if those circuit-segments were not included in the original workplan).	Please see "WMP-Discovery2023_DR_CalAdvocates_006-Q003Atch01.xlsx" for actual 2022 EVM mileage data broken down by circuit segment. Column G on tab '2022 EVM Miles Planned' contains the number of miles planned for EVM work in 2022.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	2022 WMP 7.3.5.2	Vegetation Management and Inspections	Enhanced Vegetation Management
Pre-Discovery 29		CalPA	Set WMP-06	CalPA_Set WMP-06	4	CalPA_Set WMP-06_Q4	In response to Data Request CalAdvocates-PGE-2022WMP-16, Question 11, March 23, 2022, PG&E stated the following: "Through 2022, the EVM program includes strike trees evaluation and hazard trees mitigation, overhang clearing and radial clearance. Starting in 2023, Enhanced VM only includes overhang clearing." a) Is the statement above still accurate as of the date of this request?	a) To maximize reduction of wildfire risk effectively and efficiently, the Enhanced Vegetation Management (EVM) program concluded at the end of 2022. b) Three new VM programs will be incorporated into the 2023 workplan. These programs for VM are Focused Tree Inspections, VM for Operational Mitigations, and Tree Removal Inventory. • Focused Tree Inspections: We developed specific areas of focus (referred to as Areas of	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2022 WMP 7.3.5	Vegetation Management and Inspections	Program Costs

Pre-Discovery 30	CalPA	Set WMP-06	CalPA_Set WMP-06	5	CalPA_Set WMP-06_Q5	In response to Data Request CalAdvocates-PGE-2022WMP-15, Question 16, March 18, 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 2022-2023): Please update this table as follows: a) Update the 2022 column to state actual spending in 2022.	Please see updated table below with 2022 Actuals, and our current forecasts for 2023 and 2024.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	Vegetation Management	N/A	N/A
Pre-Discovery 31	CalPA	Set WMP-06	CalPA_Set WMP-06	6	CalPA_Set WMP-06_Q6	Please provide a list of any incidents in 2022 where the actions of a VM contractor posed 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. For each instance, please provide:	Please refer to Attachment "WMP-Discovery2023_DR_CalAdvocates_006-Q006Atch01CONF.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/ParentCo: The contractor/parent company involved in the incident. • IncDate: The date of the incident.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	Vegetation Management	N/A	N/A
Pre-Discovery 32	CalPA	Set WMP-06	CalPA_Set WMP-06	7	CalPA_Set WMP-06_Q7	In response to Data Request CalAdvocates-PGE-2022WMP-14, Question 13, March 15, 2022, PG&E provided its 2022 system hardening workplan for the categories referred to in parts (a)-(d) below. Please provide an updated version of this workplan with additional columns to show the actual system hardening work performed in each circuit-segment in 2022 for each of these categories. Please add rows as needed to cover all circuit-segments where PG&E performed	Note, for CalAdvocates-PGE-2022WMP-14, Question 13, the projects listed in the 2022 columns were only for projects that overlapped with 2021 completed miles. It did not represent a comprehensive list of 2022 projects. Similarly, the 2020 columns were only for projects that overlapped with 2021 completed miles. It did not represent a comprehensive list of 2020 projects.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	2022 WMP Section 7.3.3.17	Grid Design and System Hardening	System Hardening
Pre-Discovery 33	CalPA	Set WMP-06	CalPA_Set WMP-06	8	CalPA_Set WMP-06_Q8	Provide your workplan that describes where and when you will perform system hardening on distribution circuits in 2023. For projects that you expect to partially complete in 2023 (i.e., projects that started before 2023 and are expected to continue in 2023, or projects that are expected to be completed after 2023), please include the project and report the work that you forecast will actually be performed in calendar year 2023.	Please see attachment "WMP-Discovery2023_DR_CalAdvocates_006-Q008Atch01CONF.xlsx." a. See columns A (order number), and B (order description) b. See column C c. See column D d. See columns E	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	2023 WMP Section 8.1.2.5	System Hardening	N/A
Pre-Discovery 34	CalPA	Set WMP-06	CalPA_Set WMP-06	9	CalPA_Set WMP-06_Q9	Provide your workplan that describes where and when you will perform system hardening on distribution circuits in 2024. For projects that you expect to partially complete in 2024 (i.e., projects that are expected to start before 2024 and are expected to continue in 2024, or projects that are expected to be completed after 2024), please include the project and report the work that you forecast will actually be performed in calendar year 2024.	Please see "WMP-Discovery2023_DR_CalAdvocates_006-Q008Atch01CONF.xlsx." a. See columns A (order number), and B (order description) b. See column C c. See column D d. See columns E	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2023 WMP Section 8.1.2.5	System Hardening	N/A
Pre-Discovery 35	CalPA	Set WMP-06	CalPA_Set WMP-06	10	CalPA_Set WMP-06_Q10	For each of your 2023-2025 WMP system hardening initiatives, please provide disaggregated information related to expenditures and circuit miles treated in the attached table, CalAdvocates_PGE-2023WMP-06 Attachment 1. Add columns as needed.	Please see details on the cost and mileage breakouts in attached file "WMP Discovery2023_DR_CalAdvocates_006-Q010Atch01.xlsx.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	2023 WMP Section 4.3	Proposed Expenditures	System Hardening
Pre-Discovery 36	CalPA	Set WMP-06	CalPA_Set WMP-06	11	CalPA_Set WMP-06_Q11	Please provide a spreadsheet listing (as rows) each undergrounding project completed during the period of January 1, 2022, through December 31, 2022. For each project, please provide the following information (as columns): a) Project ID number or other identifier b) Circuit ID	See "WMP-Discovery2023_DR_CalAdvocates_006-Q011Atch01CONF.xlsx." a) Project ID number or other identifier – See columns A (order Number) and B (Order Description) b) Circuit ID – See column C c) ID of each circuit segment that was entirely undergrounded in the project – Our undergrounding	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	8.1.2.2	Grid Design, Operations, and Maintenance	Undergrounding of Electric Lines and/or Equipment
Pre-Discovery 37	CalPA	Set WMP-06	CalPA_Set WMP-06	12	CalPA_Set WMP-06_Q12	Please provide a geodatabase file with a polyline feature for each undergrounding project completed during the period of January 1, 2022 through December 31, 2022. In addition to the spatial location, please provide the following attributes for each project: a) Project ID number or other identifier, matching part (a) of the previous question b) Circuit ID	See attachment "WMP-Discovery2023_DR_CalAdvocates_006-Q012Atch01CONF.zip." Please note that the data reflected in this GIS geospatial file will not match the data set from Q11 due to the process time lag between construction completion and being fully mapped in GIS.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	1	N/A	8.1.2.2	Grid Design, Operations, and Maintenance	Undergrounding of Electric Lines and/or Equipment
Pre-Discovery 38	CalPA	Set WMP-06	CalPA_Set WMP-06	13	CalPA_Set WMP-06_Q13	Identify any ignitions in 2022 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	Please see the table below identifying 2022 CPUC reportable ignitions where the asset involved in the ignition was associated with an existing open corrective maintenance notification at the time of the event. Ignition ID Date of Ignition	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2022 WMP Section 7.3.4	Asset Management and Inspections	N/A
Pre-Discovery 39	CalPA	Set WMP-06	CalPA_Set WMP-06	14	CalPA_Set WMP-06_Q14	a) Has PG&E's Asset Failure Analysis Team causally connected any ignitions that occurred in 2022 to assets with existing asset or vegetation corrective notifications at the time of ignition? b) If the answer to part (a) is yes, please provide the following information on each such ignition: i. Unique ignition ID (matching the previous question) ii. Date of ignition	a) Yes, please see below. b) Two ignitions have been identified that meet these criteria: Ignition ID Date of Ignition Cause Type of Corrective Notification Copies of Associated	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2022 WMP 7.3.7	Data Governance	Asset Failure Analysis
Pre-Discovery 40	CalPA	Set WMP-06	CalPA_Set WMP-06	15	CalPA_Set WMP-06_Q15	Per PG&E's response to Data Request CalAdvocates-PGE-2022WMP-17, Question 13, March 24, 2022, PG&E's inspection strategy in 2022 was to complete detailed inspections on all assets in HFTD Tier 3 and Zone 1, and approximately one-third of assets in HFTD Tier 2. a) Please describe any changes to the above strategy for PG&E's detailed distribution inspections in 2023.	a) Beginning in 2023, PG&E's detailed inspections of distribution structures in high fire areas will be informed by wildfire consequence as provided PG&E's Wildfire Distribution Risk Model v3. PG&E will complete a detailed inspection on each structure every one to three years. For additional details on this strategy, please refer to Section 8.1.3.2 of our 2023 WMP. This differs from our 2022 strategy where we inspected all of Tier 3 and one-third of Tier 2.	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	2022 WMP 7.3.4.1 and 7.3.4.14	Asset Management and Inspections	N/A
Pre-Discovery 41	CalPA	Set WMP-06	CalPA_Set WMP-06	16	CalPA_Set WMP-06_Q16	Regarding your PSPS circuit modeling capabilities: a) Please describe your present circuit modeling capabilities with regard to PSPS decision making ("PSPS circuit modeling capabilities"), including with what level of granularity they are able to determine how circuit hardening efforts or other changes to a line segment will affect PSPS thresholds.	a) For all questions below, PG&E understands circuit modeling to mean the level of granularity at which a utility can model the configuration of its electrical assets and de-energize them as such. PG&E models and de-energizes circuits utilizing all switching devices on the system that do not pose ignition risks. The effects of hardening and other changes to lines will be accounted for by our IBW model which uses machine learning to quantify past outages and ignitions and uses	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	0	N/A	PSPS	N/A	N/A
Pre-Discovery 42	CalPA	Set WMP-06	CalPA_Set WMP-06	17	CalPA_Set WMP-06_Q17	a) Have you developed Public Safety Power Shutoff (PSPS) risk scores at the circuit-segment level? b) Have you developed Enhanced Powerline Safety Settings (EPSS) risk scores at the circuit segment level? c) If the answer to either parts (a) or (b) is yes, please provide a geodatabase file containing as	a) Yes. This is cited in Section 6.2.1, figure 6.2.1-3. b) No. c) Please see "WMP-Discovery2023_DR_CalAdvocates_006-Q017Atch01CONF.zip" which is a geodatabase file containing the circuit segments along with PSPS risk values and Circuit Segment names. Due to the different circuit segment vintages approximately 400 of the circuit segments	Holly Wehrman	2/10/2023	3/29/2023	3/29/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/CalAdvocates_006.zip	2	N/A	PSPS/EPSS	N/A	N/A
Pre-Discovery 43	CPUC - SPD (Safety Policy Division)	001	CPUC - SPD (Safety Policy Division)_001	1	CPUC - SPD (Safety Policy Division)_001_Q1	REFCL Inquiries: •REFCL Pilot at Calistoga Circuit Segment ID 1102131531 oDescribe various active settings profiles. oDescribe how staged fault testing is planned to be conducted. oExplain how REFCL rides through momentary faults & when REFCL deenergizes line for permanent faults. •Substation Configuration – Describe any substation and/or circuit configuration issues to deploy REFCL •Availability of REFCL – Describe any known barriers to increasing deployment in CA •Explain which risk drivers per Table PG&E-7.1.4-1 REFCL mitigates. •Explain why REFCL is not preferred mitigation for broader deployment and confirm PG&E no longer plans to install REFCL at 2 substations per year per GRC filing.	a. i. The REFCL equipment installed in the substation protects all the primary lines on both Calistoga circuits. Three settings profiles allow for changing fault sensitivity and tripping behavior on the fly based on field conditions/risk. Setting 1 is for low risk with a three second delay before switching the neutral to solid grounding for line protection to clear the fault. Setting 2 is for medium risk with a three second fault ride through before directly tripping the faulted feeder circuit breaker for a sustained fault. Setting 3 is for high risk with no time delay and greatest fault sensitivity and tripping the faulted feeder circuit breaker. ii. Staged fault testing was performed in 2022 with preliminary data collected. A mobile high voltage resistor bank is momentarily connected to stage a fault on the circuit. Normally the system rides through the neutral shift with no service outage from the test. Due to greater line to ground voltages during the testing, the possibility of unplanned outage of line equipment failing is slightly increased. iii. All service transformers on REFCL circuits are connected line to line, so service voltage is maintained during the ground fault. If setting 1 or 2 is active, once a ground fault is detected, a three second time delay elapses before the fault confirmation is performed. If the fault confirmation determines that the fault vanished (momentary fault), then the neutral voltage is returned to normal with no service interruption. If the fault confirmation determines that it is a sustained fault, then the tripping is handled based on the active setting group described in 1ai. b. Due to equipment failures in the substation and on the line in the REFCL demonstration project, PG&E is still evaluating the technology and gaining operational experience with it. In order to deploy REFCL, the primary considerations for deployment are: • Substation voltage regulators: Replace wye-ground connected regulators with line-line connected regulators • Substation feeder breakers: High accuracy current transformers retrofitted • Substation secondary neutral: clearance of substation transformer bank and installation of grounding switch and cable connections to arc suppression coil • Substation physical space: Enough room within the substation for an 16 ft x 28 ft footprint per Ground Fault Neutralizer (GFN). Some substations may require 2 GFNs right away for deploying REFCL • Distribution circuits: 3-wire uni-grounded neutral only • Distribution circuits: Maximum of approximately 50 circuit miles of underground cable per transformer bank	Wendy Al-Mukdad	2/23/2023	3/9/2023	3/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_001.zip	0	N/A	8.1.8.1.3	Grid Operations and Procedures	Settings of Other Emerging Technologies (e.g., Rapid Earth Fault Current Limiters)
Pre-Discovery 44	CPUC - SPD (Safety Policy Division)	001	CPUC - SPD (Safety Policy Division)_001	2	CPUC - SPD (Safety Policy Division)_001_Q2	EPSS & Supporting Technologies (DCD & Partial Voltage Detection) Inquiries: •Explain all activities planned to mitigate EPSS reliability impacts. •Explain how support programs (e.g., battery backup) distinct from or linked to those in place for PSPS implementation? •Explain Sensitive Ground Fault settings for EPSS enabled circuit segments.	a. The following incudes activities on-going and planned to mitigate EPSS reliability impacts: Enhanced Outage Review Team (ORT) process that includes additional review of circuit/Circuit Protection Zone (CPZ) performance that when multiple outages occur triggers a Multiple Outage Review (MORE) to drive additional actions if needed to reduce repeat outages going forward. • Continuing Proactive Vegetation Trimming on the Top 12 circuit segments that were identified	Wendy Al-Mukdad	2/23/2023	3/9/2023	3/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_001.zip	0	N/A	8.1.8.1.1	Grid Operations and Procedures	Protective Equipment and Device Settings
Pre-Discovery 45	CPUC - SPD (Safety Policy Division)	001	CPUC - SPD (Safety Policy Division)_001	3	CPUC - SPD (Safety Policy Division)_001_Q3	EPSS & REFCL Inquiries: •EPSS vs REFCL – Describe the major similarities and differences. oWhat are advantages and disadvantages? □ In terms of capability, sectionalization, safety, and reliability? •Phase-to-Ground Faults vs Complex (Multiphase) Faults – What is the risk profile of existing	a. In concept, EPSS and REFCL are two very different approaches that share a common goal of attempting to reduce risk associated with ignitions on primary electric distribution systems. i. EPSS – advantages: • Can be implemented on mostly existing equipment and relays • Reduces incident fault energy across all types of faults (Three-phase, line-to-line, line-to-	Wendy Al-Mukdad	2/23/2023	3/9/2023	3/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_001.zip	0	N/A	8.1.8.1	Grid Operations and Procedures	Equipment Settings to Reduce Wildfire Risk
Pre-Discovery 46	CPUC - SPD (Safety Policy Division)	001	CPUC - SPD (Safety Policy Division)_001	4	CPUC - SPD (Safety Policy Division)_001_Q4	General risk reduction inquiry: •What's PG&E's goal for long-term risk reduction, particularly reduction of likelihood of ignition and also reduction of consequences, for circuits in HFTDs that are not undergrounded?	PG&E's long term goal is to maximize risk reduction by undergrounding high wildfire risk locations. For locations that will not be undergrounded, we will continue to deploy our suite of Operational Mitigations and other System Resilience Mitigations. Operational Mitigations include programs such as EPSS, equipment maintenance and repair, vegetation management for operational mitigations, and PSPS. System Resilience Mitigations include programs such as covered	Wendy Al-Mukdad	2/23/2023	3/9/2023	3/9/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/SPD_001.zip	0	N/A	7.2.1	Wildfire Mitigation Strategy Development	Overview of Mitigation Initiatives and Activities
Pre-Discovery 47	Green Power Institute (GPI)	001	Green Power Institute (GPI)_001	1	Green Power Institute (GPI)_001_Q1	Please provide PG&E's Pre-submission 2023-2025 WMP Base Plan filed on February 13, 2023, with the OEIS per the 2023 WMP Guidelines and Schedule document. Including all attachments and associated supporting documents required for the Pre-submission 2023-2025 WMP Base Plan filing.	PG&E has designated the entire pre-submission as confidential to align with Energy Safety's pre-submission process and guidelines which stipulate that the pre-submission documents are not to be made public. In addition, the pre-submission contains contact information for individuals that is considered confidential. As noted in our correspondence to you on March 8th and March 10th, we can provide you with a	Zoe Harrold	3/1/2023	3/14/2023	3/14/2023	https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/wildfire-mitigation-plan/reference-docs/2023/GPI_001.zip	0	N/A	All	All	All