Pacific Gas and Electric Company

Jay Leyno
Director
Wildfire Mitigation PMO

Mailing Address: 300 Lakeside Drive
Oakland, CA 94612
Telephone: (925) 239-3126
Email: Jay.Leyno@pge.com

September 1, 2023 **BY ENERGY SAFETY E-FILING**

Caroline Thomas Jacobs, Director
Office of Energy Infrastructure Safety
California Natural Resources Agency
715 P Street, 20th Floor
Sacramento, CA 95814

Re: Reply Comments of Pacific Gas and Electric Company to the 2023-2025 Wildfire Mitigation Plan Revision Notice Responses
Docket # 2023-2025-WMPs

Dear Director Thomas Jacobs:

Please find enclosed Pacific Gas and Electric Company's (PG&E) reply comments in response to items raised by intervenors concerning our 2023-2025 WMP Revision Notice responses.

PG&E received 20 sets of comments on our 2023-2025 WMP Revision Notice responses. These comments made numerous recommendations for the Office of Energy Infrastructure Safety (Energy Safety) to consider. PG&E has not addressed all items raised by the parties due to the five-page limitation for reply comments. In addition, many of the items raised have already been addressed in the 2023-2025 WMP, Revision Notice Responses, and data request responses. If needed, we would be pleased to provide additional analysis on other issues raised by parties.

PG&E appreciates the opportunity to provide these comments. If you have any questions, or need any additional information, please do not hesitate to contact me.

Very truly yours,

/s/ Jay Leyno

Jay Leyno

I. CRITICAL ISSUE RN-PG&E-23-01 ADDRESSING OBJECTIVES

MGRA recommends that PG&E substantially increase our targets for deployment of advanced technologies relating to Situational Awareness (SA).[1] However, Energy Safety did not identify issues with PG&E's SA targets in the Revision Notice (RN). In RN-PG&E-23-01, PG&E was directed to revise objectives in various areas, including SA.[2] PG&E complied by updating existing objectives and creating new ones. This included creating a new objective related to Distribution Fault Anticipation (DFA)/Early Fault Detection (EFD) Installations (SA-09). PG&E also created two new DFA/EFD targets (SA-10 and SA-11).[3] With these updates, we have demonstrated our commitment to evaluating the use and effectiveness of advanced technologies.[4]

II. CRITICAL ISSUE RN-PG&E-23-02 ADDRESSING QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

Cal Advocates argues that PG&E's response to RN-PG&E-23-02 is insufficient because we do not establish yearly target pass rates for asset and Vegetation Management (VM) inspection QC programs from 2023-2025.[5] PG&E disagrees and has sufficiently explained this decision in our response to the RN and in data responses.[6] PG&E has provided sample sizes and yearly target pass rates for our asset and VM inspections QA programs.[7] We also explained that we cannot provide meaningful future, annual sample sizes or target pass rates for our QC programs at this time because we are integrating QC with our execution processes in 2024 to shorten timelines, reduce repair costs, and allow for quick deployment of corrective actions.[8] Creating future WMP QC targets, including minimal sample sizes, without relevant data from 2024, would limit our ability to adjust practices to ensure the improvements we seek. We share Energy Safety's goal of a pass rate of 95% or better for our QC programs, and we believe that our integrated approach will help us get there. In the RN response, PG&E provided our 2023 QC pass rates, and we can provide future quarterly QC pass rates, if requested.

Cal Advocates recommends that Energy Safety require PG&E to postpone our proposed new QC process due to lack of sufficient information.[9] This recommendation is unwarranted. As explained in the RN response, PG&E is integrating QC with our work execution processes in 2024 to drive quality during execution so that work is completed correctly the first time.[10] In response to data requests, we have provided a step-by-step description of our 2023 QC process and have noted where in the process we will integrate the new QC process in 2024. We describe how our proposed QC process will create more timely corrective actions and operational efficiencies.[11] We are pursuing a QC sample size of approximately 30% of all system inspection and VM completed work within the High Fire Threat District (HFTD) barring external factors.[12] We also plan to continue increasing our investment in QC programs. For example, in 2023, QC sampling in our VM Routine program is 44% higher YTD than all of 2022, 100% higher for Transmission Asset Inspections, and over 90% higher for Distribution Asset Inspections, and we plan for more investments in 2024.

Cal Advocates recommends that PG&E benchmark against our current QC process to ensure the proposed integrated QC process will not reduce inspection quality.[13] Mr. Abrams similarly expresses concern about tracking progress without targets.[14] As shown above, PG&E's decision not to establish future QC targets at this time is meant to allow flexibility to improve our QC programs and not to decrease

transparency. PG&E will work with Energy Safety and other stakeholders to provide ongoing insight into the programs. The proposal from Cal Advocates to run two QC processes simultaneously, however, is not practicable. Employing two different QC processes at the same time would be inefficient and require diverting needed resources from the new QC process. Instead, we will demonstrate that our new QC process will improve inspection quality by quantitatively analyzing improvements in both QA and QC pass rates and efficiencies in terms of reduced re-work and lower repair costs.

III. CRITICAL ISSUE RN-PG&E-23-03 ADDRESSING ENHANCED POWERLINE SAFETY SETTINGS (EPSS)

Cal Advocates characterizes PG&E's RN response as misleading, stating that the RN response skirts consideration of the generally worsening trend in reliability due to EPSS implementation, is at odds with other reports we filed with the CPUC, and fails to analyze the impact on the customers who are most affected by EPSS.[15]

PG&E has not provided inaccurate or potentially misleading information in our RN response about EPSS reliability impacts. We have been transparent about how EPSS impacts reliability in communications with the CPUC and Energy Safety. PG&E addresses Cal Advocates criticisms about our RN response and the 2022 Annual Electric Reliability Report (Reliability Report) statements below.

PG&E's statements in the 2023-2025 WMP and RN responses are factually accurate and are not inconsistent with the Reliability Report. The perceived misalignment stems from the ways outages are described in the respective narratives. The WMP and RN response generally discuss the customer impacts associated with each EPSS outage event. In other words, how often an outage event occurs in the HFRA where EPSS is enabled. The Reliability Report statement cited[16] is based on SAIDI and SAIFI metrics which are system-level metrics that reflect the frequency and length of time that an "average customer" experiences an outage.

PG&E's statement that we have, "not experienced significant increase in HFRA outage frequency since the implementation of EPSS"[17] is accurate because EPSS generally does not create outage events that would not have otherwise occurred. EPSS settings enable a line to trip more quickly than standard settings, but EPSS settings do not increase the number of outage events on their own. However, because EPSS protection is designed to overreach fuses to mitigate a potential wire down backfeed condition, depending on the fault location, that outage event frequently impacts more customers per outage event. This has been articulated in multiple venues, starting with the 2022 WMP.[18] The number of outages in the HFRA from May to October decreased significantly from 2021 to 2022. Additionally, the number of outages in the HFRA during the same time period was only slightly higher in 2022 (6,140 outage events) than in 2020 (6,128 outage events) before EPSS was enabled. However, the Customers Experiencing Sustained Outages has increased, which in turn impacts SAIDI and SAIFI metrics, and therefore reliability at the system level.

In our Reliability Report, PG&E accurately reported that our reliability metrics (e.g. SAIFI and SAIDI) were negatively affected by EPSS implementation, and EPSS resulted in the "average customer" experiencing more and longer sustained outages.[19] While the number of outage events on EPSS enabled circuits has not increased, as explained above, the number of customers impacted per outage event has increased,

which impacts overall reliability at the system level. As noted above, that would have formerly been isolated at the fuse level are now isolated upstream using EPSS protection devices. This results in outages across larger zones, and the total number of customers and outage minutes increase per event across the system. Even if an EPSS outage is shorter than an average system outage, the customer minutes (CM) may increase because of the expanded outage impact. For example, an outage occurring under normal settings that would have affected 10 customers for 2 hours (e.g. 10 customers x 120 minutes = 1,200 CM) now may affect 100 customers for 1.5 hours (e.g. 100 customers x 90 minutes = 9,000CM) with EPSS enabled. This hypothetical EPSS outage would negatively impact both SAIDI and SAIFI metrics.

IV. CRITICAL ISSUE RN-PG&E-23-04 ADDRESSING DISTRIBUTION TAGS

Cal Advocates suggests that Energy Safety investigate PG&E's claim that we address high-risk A and B tags safely and on time.[20] However, an investigation is not relevant to PG&E's plan to reduce the maintenance tag backlog because these categories of tags are not the primary source of the backlog. Nothing in our RN response changes how we address A and B tags. Our highest priority remains remediating level A tags (high potential impact on safety or reliability) and our second highest priority is addressing level B tags (moderate potential impact on safety or reliability).[21] Our commitment to addressing these tags was demonstrated by our 2022 WMP work where we focused on remediating newly emergent A and B tags rather than lower priority E tags.[22] Additionally, Energy Safety already has visibility into the status of our tag work as we provide information on this issue in both our Safety and Operational Metrics (SOMS) semiannual report and our Quarterly Data Report (QDR).[23]

Cal Advocates also argues that Energy Safety should require PG&E to demonstrate that the Field Safety Reassessment (FSR) process is reasonable, including describing how an inspector can cancel a maintenance tag through the FSR process, and how PG&E will prevent erroneous cancellation of tags that have not been remediated.[24] As explained in our RN response, the FSR program, combined with the open tag validation that is part of the current GO 165 inspection process, is an important risk containment measure to address our tag backlog.[25] The FSR process gives us more eyes-on-risk and allows us to identify any abnormal condition that has escalated in severity to become a priority A or B tag and to implement any needed repairs with urgency. The FSR procedure ensures safety and prevents errors. An inspector can only make recommendations for tag cancellations.[26] Tags can only be canceled after they go through a second layer of review by a Qualified Company Representative (QCR), who can only cancel a tag when the QCR determines that: (1) the tag is not valid; (2) the tag is a duplicate tag; or (3) the maintenance work in question has already been completed.

V. CRITICAL ISSUE RN-PG&E-23-05 ADDRESSING UNDERGROUNDING

We appreciate the input from Montclair residents and Senator Skinner regarding undergrounding in the Montclair District. Our undergrounding program is primarily focused on the highest wildfire risk-ranked circuit segments. The circuit segments in Montclair are not among the top 20% highest risk-ranked circuit segments per PG&E's risk model.[27] Thus, they are not scheduled for undergrounding. However, PG&E has implemented other mitigations to protect Montclair including: installing six miles of

covered powerlines and stronger poles in the areas surrounding Oakland and Montclair, installing EPSS on all distribution lines in and around high fire-risk areas in Alameda County, and installing 39 weather stations and 11 high-definition cameras to identify potential fires in near real time. We will continue to reevaluate communities in high fire risk areas, including Montclair, for future undergrounding projects as our undergrounding program and risk models evolve.[28]

GPI notes that 19 of PG&E's 41 highest-risk circuits are planned for hardening in 2026 or later, and PG&E should not delay long-term risk abatement on them because it is difficult or will take additional time.[29] Mr. Abrams claims PG&E is foregoing infrastructure safety improvements like covered conductor, or operational safeguards like quality controls and VM, while we ramp up undergrounding capabilities.[30] While PG&E recognizes that permanent wildfire mitigation takes time to implement, we are not sacrificing short-term safety. PG&E is managing wildfire risk on the 19 circuit segments using programs such as EPSS, inspections, and VM. PG&E relies on these programs to reduce wildfire risk until a circuit segment is scheduled for system hardening.[31] PG&E's system hardening portfolio balances harder-to-construct circuit segments with other high risk circuit segments that can be relocated more quickly so that risk reduction work continues across the system.[32] Organizing system hardening projects based on risk order alone would result in less efficient—and ultimately more costly— risk mitigation.

TURN argues that PG&E fails to recognize overhead hardening as a timelier and more cost-effective mitigation than undergrounding[33] and misrepresents Wildfire Feasibility Efficiency (WFE) as a better measure for mitigation efficiency than RSE.[34] PG&E does not fail to recognize that overhead hardening (also referred to as covered conductor) requires fewer resources and can be implemented more quickly than most underground projects. PG&E continues to install covered conductor where effective.[35] However, undergrounding is a more holistic solution in the highest-risk areas because it provides ignition risk reduction of 97.7%,[36] significantly more than overhead hardening ignition risk reduction, which PG&E estimates to be 64%.[37] Also, undergrounding will reduce PSPS and EPSS outages affecting customers and will protect customers and communities from wildfire risk and improve reliability.[38] More undergrounding will also decrease the need for certain operations and maintenance activities, including some inspections, anticipated storm damage repairs, and VM.

PG&E does not misrepresent our WFE calculation. In the WFE, we pair the elements of risk spend efficiency (cost and risk reduction) with feasibility as a cost multiplier in our mitigation effectiveness analysis. Feasibility helps us understand the time and resources required to implement system hardening where terrain difficulty results in longer construction timelines. The longer the timeline, the longer it takes to permanently reduce wildfire risk in that location.[39] As described in our WMP, WFE and wildfire risk are 93.7% correlative, validating that our work prioritization using WFE is focused most on risk and less on feasibility.[40]

VI. CRITICAL ISSUE RN-PG&E-23-07 ADDRESSING HAZARD TREE RISK

Cal Advocates recommends that Energy Safety require PG&E to justify our decision to address the Tree Risk Inventory (TRI) over nine years.[41] PG&E's scope and schedule for TRI is reasonable and adequately addresses the risk from these trees because we reduced HFTD vegetation risk under the EVM Program. Remaining risk is

managed by EPSS and other operational mitigations. We are exceeding our TRI schedule in 2023—we planned to inspect 45,000 trees, but we have already inspected over 78,000 trees and will continue to inspect more. We have also mitigated more than 33,000 trees from the backlog, compared to our target of 25,000 trees. Given this progress, PG&E is on track to complete the TRI program more quickly than originally anticipated.

GPI argues that PG&E does not adequately address the risk from hazard trees, stating we should be required to accelerate Level 2 inspections on all strike trees in the Focused Tree Inspection (FTI) program and we should digitize all VM strike tree abatement forms starting in 2023.[42] PG&E's timeline for incorporating Level 2 inspections into the FTI program [43] is reasonable because we need time to test and evaluate the new inspection approach. The timeline also considers time needed to develop the right resources for a large-scale deployment. PG&E agrees that we should digitize VM strike tree abatement forms. Because it will take time and additional controls to implement digital record keeping in OneVM, for now we are relying on the digital photograph as an interim measure.

Mr. Abrams recommends that PG&E be required to show the effectiveness of the FTI program before using it.[44] PG&E was directed to benchmark the use of predictive and risk modeling in VM with SCE and SDG&E, report on practices learned, and discuss initial steps to incorporate these practices into VM. PG&E developed the FTI program based on Areas of Concern (AOC) to better focus VM efforts to address areas with higher volumes of vegetation damage during PSPS events, outages, and/or ignitions.[45] Requiring a waiting period would halt progress on FTI program development.

VII. CRITICAL ISSUE RN-PG&E-23-01 AND CRITICAL ISSUE RN-PG&E-23-08 ADDRESSING PUBLIC SAFETY POWER SHUTOFF (PSPS)

RCRC states that PG&E does not set appropriate PSPS risk thresholds by capturing EPSS enabled circuits in our methodology.[46] While we do not currently plan on updating PSPS risk thresholds, PG&E did enhance Objective SA-05 to include testing new features and types of model configurations to help evaluate how improvements to our grid can be incorporated into our Ignition Probability Weather (IPW) and Fire Potential Index (FPI) models. This will help improve our understanding of real time ignition probabilities against which we assess our PSPS thresholds.[47]

RCRC claims PG&E does not demonstrate we will make efforts to reduce the future scope and scale of potential PSPS events.[48] GPI and MGRA also argue that PG&E's 3-year objectives do not do enough to reduce the impacts of PSPS events by considering advanced technologies. [49] While PSPS events are weather dependent, we have included Objective PS-09 to reduce the size, duration, or frequency of PSPS events as part of our undergrounding program.[50] Target PS-07 is aimed at reducing impacts from PSPS events from 2023-2025 by completing wildfire mitigations including MSO installations and undergrounding.[51] The combination of these objectives/targets demonstrates our near- and long-term commitments to reducing PSPS impacts.

VIII. CONCLUSION

Based on the reasons set forth above, and detailed in the plan itself, PG&E respectfully requests that our 2023-2025 WMP be approved by Energy Safety.

ENDNOTES

[1] Mussey Grade Road Alliance Comments on 2023-2025 Wildfire Mitigation Plans R2 of PG&E and Revision Notice Response (MGRA), p. 7.
[2] OEIS Revision Notice for PG&E's 2023-2025 Wildfire Mitigation Plan, pp. 4-5.
[3] PG&E's 2023-2025 Wildfire Mitigation Plan, Revision 2, August 7, 2023 (2023-2025 WMP R2), Table 8-23 (Revised), p.307.
[4] 2023-2025 WMP R2, Revised Table 7-3-1, Objective SA-12, p.292.
[5] Public Advocates Office Opening Comments on Pacific Gas and Electric's Revised 2023-2025 Wildfire Mitigation Plan (Cal Advocates), pp. 2-3.
[6] 2023-2025 WMP R2, pp. 511-512 and pp. 674-675. PG&E Discovery Response: CalPA_SetWMP-28_Q01.
[7] 2023-2025 WMP R2, Table 8-7-1, p. 508 (Asset Inspections) and Table 8-18-1, p. 672 (Vegetation Management)
[8] 2023-2025 WMP R2, pp. 511-512 and pp. 674-675 and Discovery Response: CalPA_SetWMP-28_Q01.
[9] Cal Advocates, pp. 3-5.
[10] 2023-2025 WMP R2, pp. 511-512 and pp. 674-675.
[11] PG&E Discovery Response: CalPA_SetWMP-28_Q01.
[12] PG&E Discovery Response: CalPA_SetWMP-28_Q01.
[13] Cal Advocates, pp. 5-6.
[14] William B. Abrams Comments on PG&E's 2023 Wildfire Mitigation Plan Final Revision Notice Response (William Abrams), Section II.
[15] Cal Advocates, pp. 6-8.
[16] Cal Advocates p. 7
[17] Cal Advocates, p. 7.
[18] 2022 WMP Update - Revised, p. 842.
[19] PG&E's 2022 Annual Electric Reliability Report (per Decision 16-01-008), July 15, 2023, p. 5.
[20] Cal Advocates, p. 10.
[21] 2023-2025 WMP R2, p. 519.
[22] PG&E Annual Report on Compliance for 2022 WMP (Mar. 31, 2023), p. 14.
[23] Pacific Gas and Electric Company, Safety and Operational Metrics Report, April 3, 2023, and PG&E's 2023-2025 WMP, Quarterly Data Report for Second Quarter – August 1, 2023.
[24] Cal Advocates, pp. 11-12.
[25] 2023-2025 WMP R2, p. 528.
[26] 2023-2025 WMP R2, pp. 528-529.
[27] Reply Comments of Pacific Gas and Electric Company to the 2023-2025 Wildfire Mitigation Plan, p.1.
[28] PG&E will continue to reevaluate sites and prioritization for undergrounding based on: (1) updated risk models; (2) requirements of Senate Bill 884, which also includes consideration of reliability, public safety, and cost efficiency, in addition to wildfire risk; and (3) consideration of undergrounding secondaries and services.
[29] Comments of the Green Power Institute on the PG&E Response to the Final Revision Notice for their 2023 WMP (GPI), pp.7-8.
[30] William Abrams, Section I.
[31] 2023-2025 WMP R2, p. 402.
[32] 2023-2025 WMP R2, p. 406.
[33] Comments of the Utility Reform Network on Pacific Gas and Electric Company's 2023-2025 Wildfire Mitigation Plan Response to Revision Notice (TURN), pp.5-6.
[34] TURN pp. 6-10.
[35] 2023-2025 WMP R2, p. 391.
[36] 2023-2205 WMP R2, p. 394.
[37] 2023-2205 WMP R2, p. 1032.
[38] 2023-2205 WMP R2, p. 397.
[39] 2023-2025 WMP R2, p. 406.
[40] 2023-2025 WMP R2, p. 1100 and Figure PG&E-22-34.1.

[41] Cal Advocates, pp.17-18.
[42] GPI, pp. 9-10.
[43] 2023-2025 WMP, p.620.
[44] William Abrams, Section III.
[45] 2023-2025 WMP R2, p. 1068.
[46] Opening Comments of the Rural County Representatives of California on PG&E's Revised 2023-2025 Wildfire Mitigation Plan (RCRC), p. 3.
[47] 2023-2025 WMP R2, p. 290.
[48] RCRC, p. 3.
[49] GPI, p.3 and MGRA pp.8-9.
[50] 2023-2025 WMP R2, Table 7-3-1, p. 291.
[51] 2023-2025 WMP R2, Table 7-3-2, p. 343.