

October 14, 2024

Kristin Ralff Douglas
Program Manager, Electrical Undergrounding Division
Office of Energy Infrastructure Safety
715 P Street, 20th Floor
Sacramento, CA 95814

Re: Pacific Gas and Electric Company's Reply Comments on the Revised Draft 10-Year Electrical Undergrounding Plan Guidelines Issued by Energy Safety on September 13, 2024

Dear Ms. Douglas:

Thank you for the opportunity to provide reply comments on the Revised Draft 10-Year Electrical Undergrounding Plan (EUP) Guidelines (Revised Guidelines) issued by the Office of Energy Infrastructure Safety (Energy Safety) on September 13, 2024. Our reply comments address opening comments from the Public Advocates Office at the California Public Utilities Commission (Cal Advocates); AT&T California, the California Broadband & Video Association, Crown Castle Fiber LLC, and Sonic Telecom, LLC (Communications Providers); and the Mussey Grade Road Alliance (MGRA). All section references in these reply comments refer to the Revised Guidelines.

1. Response to Cal Advocates

Cal Advocates raises four categories of issues in its opening comments: (a) technical issues; (b) procedural issues; (c) tracking reasonable costs; and (d) alleged legal flaws in the Revised Guidelines. PG&E addresses each category below.

a. **Technical Issues**

Cal Advocates' three technical issues are: (1) Energy Safety should require Large Electrical Corporations¹ to evaluate specific alternatives to undergrounding; (2) reporting the project time of completion is imperative for alternatives analysis; and (3) the definition of reliability should align with the California Public Utilities Commission (CPUC or the Commission) reliability metrics.²

It is Unnecessary to Add More Requirements to the Revised Guidelines around Mitigation Alternatives Analysis

Cal Advocates states that the Revised Guidelines require a utility to evaluate at least two comparable alternative mitigations but leaves the choice of alternates entirely up to the utility. Cal Advocates claims that this could allow the utility to select unrealistic alternatives designed to appear costly, ineffective, or infeasible, resulting in a biased analysis that favors undergrounding.³ Accordingly, Cal Advocates proposes four revisions to the Revised Guidelines, discussed below. We provide PG&E's responses to each.

- **Revision 1:** Cal Advocates recommends that for each undergrounding project, the utility evaluate an alternative that consists of covered conductor paired with fast-trip settings and other operational mitigations.⁴ The Revised Guidelines already require a utility to analyze Alternative 1, which consists of covered conductor plus protective equipment. Operational mitigations other than protective equipment (*e.g.*, inspections and maintenance programs) provide minimal incremental risk reduction⁵ and it is therefore unnecessary to add other operational mitigations to the comparative analysis.

¹ For purposes of these reply comments, PG&E uses the term "utility" and "Large Electrical Corporation" interchangeably.

² Public Advocates Office's Comments on the Updated Revised Draft Guidelines for the 10-Year Undergrounding Plan (Cal Advocates Opening Comments), October 3, 2024, pp. 1-6.

³ Cal Advocates Opening Comments, pp. 1-2.

⁴ Cal Advocates Opening Comments, p. 3.

⁵ PG&E estimates that risk reduction related to backlog maintenance and proactive equipment replacement is approximately 2.8 percent. PG&E's 2023-2025 Base Wildfire Mitigation Plan, R6, Table PG&E-7.2.2-5, p. 358.

- Revision 2: Cal Advocates recommends that for each undergrounding project, the utility evaluate at least two additional alternatives beyond covered conductor plus fast-trip settings.⁶ Cal Advocates argues that the two alternatives should consist of mature mitigations or a new mitigation for which the utility has completed a successful pilot. However, the Revised Guidelines already require more than two additional alternatives beyond covered conductor plus fast trip settings (which the Revised Guidelines refer to as Alternative 1): (1) 100 percent Undergrounded circuit segment; (2) Project as Scoped (all work in the final design of a hybrid project); (3) Undergrounding as Scoped (only the undergrounding subprojects of a circuit segment); and (4) Baseline (the unmitigated circuit segment). Additionally, the Revised Guidelines require a utility select another mitigation alternative for comparison — referred to as Alternative 2 — that meets or exceeds the risk reduction of Alternative 1.⁷ Requiring more alternative mitigation comparisons is both unnecessary and unreasonable. As we have stated previously, requiring additional alternatives could force a utility to model and report on an “artificial” alternative mitigation that is not part of its suite of mitigation options, is operationally infeasible, or is cost prohibitive provides no additional value.⁸
- Revision 3: Cal Advocates recommends that alternative mitigations be realistic and reasonable combinations of mitigations.⁹ We agree. However, we note that the Revised Guidelines already state that only feasible work should be included in the alternatives analysis.¹⁰ As we explained in our Workshop Comments,¹¹ modeling and reporting on alternative mitigations that are not part of a utility’s suite of mitigation

⁶ Cal Advocates Opening Comments, p. 3.

⁷ Revised Guidelines, Section 2.7.10.

⁸ See PG&E’s Comments on Issues Raised by PG&E and other Topics Discussed at the Workshop Held July 25, 2024 by Energy Safety on the Draft Electrical Underground Plan Guidelines, p. 6 and PG&E’s Comments on the Revised Draft 10-Year Electrical Undergrounding Plan Guidelines Issued by Energy Safety on September 13, 2024 (PG&E Workshop Comments) October 3, 2024, p. 7.

⁹ Cal Advocates Opening Comments, p. 3.

¹⁰ Revised Guidelines, Section 2.7.10, p. 41.

¹¹ PG&E Workshop Comments, p. 7.

options is unreasonable. Thus, while PG&E agrees with Cal Advocates on this general principle, we do not see a need to revise the Guidelines.

- Revision 4: Cal Advocates recommends that alternative mitigations must be assessed using comparable assumptions to undergrounding.¹² PG&E agrees with this recommendation.

PG&E Supports the Requirements in the Revised Guidelines to Provide a Timeline for Completion of Projects at Screens 3 and 4

Cal Advocates recommends that Energy Safety require an estimated project completion time in Screen 2.¹³ We do not support this recommendation. It is unrealistic and premature for a utility to report an estimated time of completion at Screen 2. Completion time estimates for each undergrounding project occur after a utility evaluates the project through design and estimating phases. The design and estimating phase occur well past the scoping phase that is required to complete the Screen 2 analyses. Factors that impact the time for project completion include securing permits, easements, land rights, and other activities that will be completed after a mitigation is selected for an Eligible Circuit Segment in Screen 3. It is not feasible to provide accurate project timeline information at Screen 2.

The Revised Guidelines already require a Large Electrical Corporation to develop a projected timeline for completion of each subproject and factor it into its risk modeling methodology. This requirement applies to Screen 3 and Screen 4.¹⁴ Accordingly, we support the project timeline requirements already included in the Revised Guidelines.

PG&E does not Support Changing the Definition of Reliability in the EUP

The third topic Cal Advocates raises is that the definition of reliability should align with CPUC reliability metrics. The CPUC defines reliability of services measured against three metrics: System Average Interruption Duration Index (SAIDI); System Average Interruption Frequency Index (SAIFI); and Customer Average Interruption Duration

¹² Cal Advocates Opening Comments, p. 3.

¹³ Cal Advocates Opening Comments, pp. 4-5.

¹⁴ Revised Guidelines, Section 2.7.5, Core Capability 4, p. 34.

Index (CAIDI).¹⁵ We generally agree that aligning on a common definition avoids ambiguity, but we do not support changes to the Revised Guidelines because, as we discuss below, requiring a utility to output SAIDI, SAIFI, and CAIDI metrics would mean that it could not calculate an overall utility risk score as required for the EUP.

PG&E's reliability model incorporates SAIDI, SAIFI, and CAIDI, but results are presented as the *cost* of service interrupted. This is calculated as the number of customer minutes interrupted (CMI) multiplied by the average cost of service per minute. Presenting the output from the reliability model this way allows us to join the reliability risk with the wildfire risk, which is also monetized, to calculate an overall utility risk.

Cal Advocates asserts that aligning the definition of reliability in the Revised Guidelines with the CPUC's definition will ensure that utilities correctly evaluate economic and social impacts for customers and also notes that using the CPUC's definition would allow Energy Safety to compare EUP projects with the metrics in the Annual Electric Reliability Reports.¹⁶ However, because our reliability model accounts for SAIDI, SAIFI, and CAIDI, PG&E is already evaluating impacts to customers and the Revised Guidelines do not need to be updated. While comparing EUP projects with the metrics in the Annual Electric Reliability Reports could be useful, requiring PG&E to output SAIDI, SAIFI, and CAIDI metrics would preclude PG&E from calculating an overall utility risk score for the EUP. For these reasons, PG&E does not support changing the definition of reliability in the Revised Guidelines.

b. Procedural Issues

Cal Advocates raised three procedural issues, asking Energy Safety to: (1) establish a reasonable period for comments on EUPs; (2) remove the page limit on stakeholder comments; and (3) specify that it will hold at least one workshop for each Large Electrical Corporation's EUP.¹⁷

With regard to comment periods, PG&E does not support Cal Advocates' Option A (retain the 30-day comment period as an initial set of comments for issue identification

¹⁵ Cal Advocates Opening Comments, pp. 5-6.

¹⁶ Cal Advocates Opening Comments, p. 6.

¹⁷ Cal Advocates Opening Comments, pp. 6-8.

and add a second opportunity for comments at the 6-month mark). Instead, PG&E supports Option C (120 days) because it gives stakeholders sufficient time to review the EUP, conduct discovery, and provide opening and reply comments to Energy Safety while ensuring that the legislative requirement to review and approve or deny an EUP within 9 months can be attained.¹⁸

Cal Advocates' Option B requires Energy Safety to issue a draft staff analysis at the 5- or 6-month mark, with a second opportunity for stakeholder comments on the draft staff analysis 30 days later.¹⁹ As discussed above, Senate Bill (SB) 884 establishes an expedited distribution undergrounding program and states that an EUP must be reviewed, approved and/or denied within nine months.²⁰ Issuing a draft analysis with a second opportunity for stakeholder comments would likely delay review and approval. Therefore, we do not support Option B.

We have no opinion regarding page limits for stakeholder comments on an EUP that has been filed.

PG&E supports the recommendation to hold at least one workshop for each Large Electrical Corporation's EUP.

c. **Tracking Costs**

Cal Advocates argues that Energy Safety should scrutinize rebuild projects where wildfires were ignited by utility equipment. They recommend that Energy Safety add a field to the Circuit Segment Identification Table requiring a utility to identify, for each rebuild project, whether the rebuild stems from a utility-related wildfire and to explain why it is appropriate to include the rebuild project in the EUP.²¹

PG&E does not support Cal Advocates' recommendation as it does not recognize PG&E's obligation to serve its customers or the fact that ignition investigations often take years to resolve. Consistent with PG&E's proposal in our Opening Comments, we recommend that fire rebuild circuit segments in the High Fire Threat District (HFTD) be

¹⁸ Cal. Pub. Util. Code § 8388.5(d)(2).

¹⁹ Cal Advocates Opening Comments, p. 7.

²⁰ Cal. Pub. Util. Code § 8388.5(d)(2).

²¹ Cal Advocates Opening Comments, pp. 9-10.

automatically considered as Eligible Circuit Segments, subject to the required Screen 2 and Screen 3 requirements. It is our responsibility to expeditiously rebuild damaged electrical infrastructure in order to serve our customers.²² Further, an investigation into the cause of a fire often takes years because it includes internal, regulatory, and responding agency investigations. And even after all the investigations have been completed, there can be differences of opinion as to the cause or causes of a fire. Waiting for a determination as to the cause of a fire would significantly hamper our restoration and rebuild efforts, which would harm our customers.

The goal of the EUP is to reduce risk on the system quickly and efficiently. It would be unreasonable to delay wildfire risk reduction in an area where wildfire has already materialized until all investigative processes are completed. Further, the cause of a wildfire is not addressed by the legislation and should not be included in the Guidelines.

d. **Claimed Legal Flaws in the Revised Guidelines**

Cal Advocates states that it has identified three legal flaws in the Revised Guidelines: (1) rebuild projects must comply with the project acceptance framework; (2) SB 884's language requires undergrounding plans to list all projects that will be constructed; and (3) Screen 3 must be applied to a portfolio of all undergrounding projects that will be part of the EUP. PG&E disagrees with Cal Advocates' claims and believes the Revised Guidelines comply with SB 884 on these points.

The Requirements for Rebuild Projects Comply with the Project Acceptance Framework

Cal Advocates states that Revised Guidelines Section 2.3.5 conflicts with the Project Acceptance Framework because Section 2.3.5 allows rebuild projects in the EUP that fail the project-level thresholds required in Screen 1.²³ Cal Advocates argues that allowing

²² *Pacific Gas and Electric Company's Opening Comments on the Office of Energy Infrastructure Safety Draft Guidelines for Submission of 10-Year Electric Undergrounding Distribution Infrastructure Plans Pursuant to Senate Bill 884* (PG&E Opening Comments), May 29, 2024, p. 16.

²³ Cal Advocates Opening Comments, p. 10.

exceptions to Screen 1 for rebuild projects conflicts with the statutory requirements in SB 884.²⁴

PG&E supports Section 2.3.5 and recommends that all circuit segments in HFTD areas that need to be rebuilt due to damage from a wildfire automatically become Eligible Circuit Segments (Screen 1). These rebuild circuits would then be subject to the same Screen 2 and Screen 3 requirements as other eligible circuit segments. Contrary to Cal Advocates' assertions, SB 884 supports the approach taken in Section 2.3.5 of the Revised Guidelines. Public Utilities Code Section 8388.5(c)(2),²⁵ which was enacted as a part of SB 884, states the undergrounding projects in an EUP must be located in tier 2 or tier 3 high fire threat districts or rebuild areas and also requires a comparison of undergrounding versus above-ground hardening mitigation alternatives.²⁶ Section 2.3.5 is fully consistent with this statutory mandate because: (1) it allows rebuild circuits to be eligible for inclusion in the EUP; and (2) requires that for these rebuild projects there is a comparison between undergrounding and other mitigations during Screens 2 and 3. Thus, Cal Advocates' concerns are unfounded.²⁷

SB 884 does not Require a List of all Projects that will be Constructed at the Time of Filing

Cal Advocates asserts incorrectly that SB 884 requires undergrounding plans to list all projects that will be constructed such that a utility cannot include any project not part of the initial EUP submission or recover any such project costs.²⁸ Cal Advocates argues that the Revised Guidelines do not require utilities' undergrounding plans to provide a complete list of projects that the utility proposes to build as part of the ten-year plan and, in this respect, the Revised Guidelines are incompatible with Section 8388.5(c).²⁹

²⁴ Cal Advocates Opening Comments, p. 11.

²⁵ All statutory references in these reply comments are to the California Public utilities Code unless otherwise noted.

²⁶ Cal. Pub. Util. Code § 8388.5(c)(2).

²⁷ PG&E Opening Comments, p. 16.

²⁸ Cal Advocates Opening Comments, p. 11.

²⁹ Cal Advocates Opening Comments, p. 11.

Cal Advocates' assertions are simply unfounded. Section 8388.5(c)(2) requires:

Identification of the undergrounding projects that will be constructed as part of the program, including a means of prioritizing undergrounding projects based on wildfire risk reduction, public safety, cost efficiency, and reliability benefits. Only undergrounding projects located in tier 2 or 3 high fire-threat districts or rebuild areas may be considered and constructed as part of the program.

The Revised Guidelines address all the Section 8388.5(c)(2) requirements. The Revised Guidelines define a project as an individual isolatable circuit segment.³⁰ Section 2.4 confirms that circuit segments (or projects based on the Revised Guidelines definition) passing Screen 2 constitute the list of undergrounding projects identified in the EUP pursuant to Section 8388.5(c)(2). Thus, by providing a list of circuit segments that have passed Screen 2 at the time of filing, the utility is submitting the list of projects when it submits its EUP.

The Revised Guidelines are Consistent with SB884, So Screen 3 Does Not Need to be Applied to a Portfolio of all Undergrounding Projects

Cal Advocates states that Screen 3 must be applied to a complete portfolio of all undergrounding projects that will be part of the EUP. PG&E disagrees with Cal Advocates and supports the requirements in the Revised Guidelines for reviewing and approving an EUP that are consistent with this statutory requirement. Section 8388.5(d)(2) states the Energy Safety shall review and approve or deny an EUP within nine months only if the Large Electrical Corporation has shown that the plan will substantially increase electric reliability and substantially reduce the risk of wildfire.³¹ The Revised Guidelines have established a rigorous framework supported by metrics and other tracking mechanisms by which an Large Electrical Corporation will demonstrate that its plan will achieve substantial increases in electric reliability and substantial reductions in the risk of wildfire. Most notably, the Plan Mitigation Objective that is the total amount of change in risk (wildfire and reliability) that is necessary to meet the requirement of section 8388.5(d)(2).³² Thus, there is simply no

³⁰ Revised Guidelines, Section 2.3.1, p. 3.

³¹ Cal. Pub. Util. Code § 8388.5(d)(2).

³² Revised Guidelines, Section 2.3.1, p. 3.

statutory requirement that all projects pass through Screen 3 for an EUP to be approved. Moreover, Cal Advocates' recommendation would lock utilities into a decade of projects and sub-projects almost a year and a half before an EUP even begins (*i.e.*, the 18-month approval period for Energy Safety and the CPUC). This approach would be both impractical and imprudent because circumstances and situations (e.g., new wildfires, permitting constraints, customer easements) will invariably change over the next decade.

2. Response to the Communications Providers

The Communications Providers request that Energy Safety revise the Draft Guidelines to include: (1) the cost of undergrounding on communications and broadband providers in the undergrounding cost-benefit analysis; and (2) a requirement for the Large Electrical Corporations to indicate whether any communications companies have equipment on poles for which undergrounding is planned.³³

The Cost of Undergrounding Related to Communications and Broadband Providers Should Not Be Included in Cost-Benefit Ratio Calculations

The Communications Providers propose including the cost of undergrounding on communications and broadband providers in the undergrounding cost-benefit analysis previously.³⁴ PG&E previously responded to this recommendation in our Reply Comments explaining that the recommendation is impractical and based on a misreading of SB 884. SB 884 focuses on the costs of an electrical corporation's projects and the corresponding benefits. Nowhere in the statutory language did the Legislature direct that third-party costs, such as telecommunication provider costs, be included in an EUP analysis. A utility is not, and should not be, responsible for estimating and validating third-party costs.³⁵ Therefore, we do not support the Communications Providers' recommendation to include the cost of undergrounding on

³³ Communications Providers' Comments on Revised Draft Undergrounding Guidelines (Communication Providers' Opening Comments) October 3, 2024, p. 3.

³⁴ Opening Comments of AT&T California; the California Broadband & Video Association; Crown Castle Fiber LLC; and Sonic Telecom LLC on the May 8, 2024, Draft 10-Year Electrical Undergrounding Plan Guidelines, pp. 1-3.

³⁵ PG&E Reply Comments to Energy Safety Draft EUP Guidelines (PG&E Reply Comments), June 10, 2024, p. 15.

communications and broadband providers in the Large Electrical Corporations' undergrounding cost-benefit analysis.

It is Unnecessary to Provide Information about Equipment on Poles for which Undergrounding is Planned

The Communications Providers also ask that the Revised Guidelines be updated to require Large Electrical Corporations to identify whether communications equipment exists on poles for circuits planned for undergrounding.³⁶ The May 8, 2024, Draft Guidelines included a provision requiring a Large Electrical Corporation to indicate whether any communications companies or third parties have equipment on the poles where the circuit planned for undergrounding is currently located.³⁷ In PG&E's Opening Comments, we noted that we could provide information to the third parties or communications companies with whom we have a lease or agreement. We cannot provide information about equipment on poles where the communications company or third party has a lease or agreement with another entity.³⁸ Only the communications company would have such information. Accordingly, the Revised Guidelines removed this requirement. PG&E does not support re-introducing this requirement into the final Guidelines.

3. Response to MGRA

MGRA makes two recommendations in its opening comments that PG&E has already addressed: (1) Energy Safety should provide further clarification related to the disclosure and redaction of confidential data; and (2) the guidelines should require a new circuit segment screen showing the cost of Public Safety Power Shutoff (PSPS) avoidance per customer.

It is Appropriate to Rely on the Confidentiality Rules and Processes in the California Code of Regulations

MGRA recommends that Energy Safety should: determine which data fields should be classified confidential and which should remain public; require utilities to release both public and confidential versions data; and where data is redacted, it should be done in the most non-

³⁶ Communications Providers' Opening Comments, p. 3.

³⁷ Draft 10-Year Electrical Undergrounding Plan Guidelines, May 8, 2024, Section 2.8.7.2(d).

³⁸ PG&E Reply Comments, p. 6.

destructive manner possible.³⁹ While PG&E previously disagreed with MGRA recommendations in our Reply Comments on the Draft EUP Guidelines, we supported, and continue to support, relying on the well-established confidentiality rules and processes included in the California Code of Regulations (CCR).⁴⁰ PG&E supports the requirement in Section 3.2.1 regarding the process for submitting confidential information to Energy Safety.

MGRA also asked Energy Safety to require utilities to release both public and confidential versions of documents when they are submitting confidential information.⁴¹ PG&E does not support this recommendation. A Large Electrical Corporation will be submitting a significant amount of narrative, tabular, and geospatial data with its initial EUP submission and every six months thereafter, including the 20 individual data tables required in Appendix C. It would require a significant amount of time and resources to create both confidential and public versions of this information every six months. Stakeholders have an opportunity to enter into a non-disclosure agreement with PG&E to review confidential data, as needed. If stakeholders choose not to enter into a non-disclosure agreement with PG&E, there will still be a significant amount of non-confidential data for review as part of the EUP process.

It is Unnecessary to Add a Screen Showing the Cost of PSPS Avoidance per Customer

MGRA recommends that the Guidelines require a new circuit segment screen showing the cost of PSPS avoidance per customer.⁴² However, PG&E will already provide information to address this concern. As we discussed previously, it is unnecessary to add a screen or metric for customer PSPS avoidance costs to the evaluation framework because the High Frequency Outage Program Threshold value required by the Revised Guidelines will identify those circuit segments where there is a high likelihood of frequent or prolonged outages.

Additionally, MGRA notes that the PSPS avoidance cost per customer is important because in some cases there are so few customers are on a line that the cost of undergrounding per customer is so high that off-grid or micro-grid solutions may be more appropriate.⁴³ PG&E's

³⁹ Mussey Grade Road Alliance Comments on the Revised Draft Guidelines for the 10-Year Electrical Undergrounding Distribution Infrastructure Plan, October 3, 2024 (MGRA Opening Comments), p. 2.

⁴⁰ PG&E Reply Comments, p. 8.

⁴¹ MGRA Opening Comments, pp. 2-3.

⁴² MGRA Opening Comments, p. 3.

⁴³ MGRA Opening Comments, p. 3.

cost-benefit ratio (CBR) calculation incorporates customer minutes interrupted (CMI), and the combination of a circuit segment with a high likelihood of frequent or prolonged outages and a low CMI value will identify circuit segments at risk for high frequency outages that serve few customers. PG&E uses a similar methodology in its PSPS risk framework described in our WMP.⁴⁴ PG&E also has proposed to include line removal with remote grid as an alternative mitigation scenario that will address long circuit segments supporting few customers.⁴⁵ Therefore, it is unnecessary for Energy Safety to adopt MGRA's recommendation for an additional circuit segment screen showing the cost of PSPS avoidance per customer.

Thank you in advance for considering our comments. Please feel free to contact me if you have questions about these items or need additional information from me at Megan.Ardell@pge.com.

Very truly yours,

/s/ Megan Ardell

Megan Ardell

⁴⁴ PG&E's 2023-2025 Base Wildfire Mitigation Plan, R6, July 5, 2024, p. 162.

⁴⁵ PG&E Reply Comments, pp. 9-10.