

**BEFORE THE OFFICE OF ENERGY INFRASTRUCTURE SAFETY  
OF THE STATE OF CALIFORNIA**

**COMMENTS OF THE UTILITY REFORM NETWORK  
ON PACIFIC GAS AND ELECTRIC COMPANY'S  
2026–2028 WILDFIRE MITIGATION PLAN  
RESPONSE TO REVISION NOTICE**



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RESPONSE TO REVISION NOTICE**

The Utility Reform Network (“TURN”) submits these comments on the Response of Pacific Gas and Electric Company (“PG&E”) to the Revision Notice issued by the Office of Energy Infrastructure Safety (“Energy Safety” or “OEIS”).

**I. INTRODUCTION AND SUMMARY**

On June 27, 2025, Energy Safety issued a Revision Notice identifying “critical issues” associated with the 2026-2028 Wildfire Mitigation Plan (WMP) submitted by PG&E that represent “areas of significant concern that an electrical corporation must address prior to the completion of Energy Safety’s evaluation.”<sup>1</sup> Energy Safety explained each of the critical issues and provided remedies. Additionally, Energy Safety required PG&E to include corrections to the substantive and non-substantive errata identified. Critical Issue 3 (RN-PG&E-26-03) of that Revision Notice pointed out that PG&E’s decision-making process was insufficiently supported. Specifically, OEIS stated, “PG&E’s discussion of its system hardening raises concerns as to whether it is efficiently using its resources and whether it has explained and substantiated its decision-making.”<sup>2</sup> Further, OEIS explained:

PG&E’s decision-making process for system hardening has multiple steps (cost-benefit ratio comparison and hybrid analysis) that are not well explained. Together, these steps favor undergrounding over other system hardening mitigations. PG&E did not explain how it defined the parameters for these steps nor explain why the steps are not already built into its risk model.<sup>3</sup>

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<sup>1</sup> Revision Notice, p. 2.

<sup>2</sup> Revision Notice, p. 6.

<sup>3</sup> Revision Notice, p. 6.

TURN's May 23, 2025, Comments on PG&E's WMP also raised these concerns. Specifically, TURN recommended that OEIS require PG&E to "implement a grid hardening selection process that fairly and accurately compares the CBRs [cost-benefit ratios] of feasible alternatives and implements the solution that provides the safest, quickest, least expensive option."<sup>4</sup> TURN recommended a three-step process to evaluate hardening alternatives at each high-risk project location.<sup>5</sup>

Just as PG&E's 2026-2028 WMP failed to provide adequate justification for its decision-making selection process and the default to undergrounding, PG&E's July 28, 2025, Response to Energy Safety's Revision Notice once again fails to provide a qualitative, reasoned explanation for (1) PG&E's use of the 50% cost-benefit ratio threshold for selecting undergrounding over Covered Conductor ("CC") + Enhanced Powerline Safety Settings ("EPSS"); and (2) PG&E's position that the current risk model and existing cost-benefit ratio analysis does not adequately account for tree strike risks, ingress and egress, and reliability risks, and other uncertainties in the risk modeling that necessitate an additional analytical step in the decision tree. Even if the accuracy of certain risk values are improved through more granular assessment of particular locations scoped for grid hardening, PG&E has not provided the explanation necessary to justify its decision-making selection process. Nothing in PG&E's Response addresses the bias inherent in its decision-making selection process and, instead, worsens the concern.

TURN's comments will focus on Critical Issue 3, but the absence of comment on other issues identified in the Revision Notice should not be construed as agreement or acquiescence.

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<sup>4</sup> TURN May 23, 2025, Comments on PG&E's 2026-2028 WMP, p. ii.

<sup>5</sup> TURN May 23, 2025, Comments on PG&E's 2026-2028 WMP, p. ii.

TURN submits that the recommendations in its May 23, 2025, Comments should be implemented. As noted there:

TURN does not wholly oppose undergrounding and recognizes that in the highest risk areas, it may be the best tool. However, TURN believes that the selection process should lead to well-targeted mitigation efforts, including undergrounding where it makes the most sense. Such a determination may include the increased risk associated with climate change, but it remains inexcusable to be biased toward undergrounding when it does not increase safety compared to other feasible alternatives. In short, OEIS should require that PG&E implement a grid hardening selection process that fairly and accurately compares the CBRs of feasible alternatives and implements the solution that provides the safest, quickest, least expensive option. The current bias toward undergrounding serves PG&E's interest in maximizing corporate profit at the cost of delay and increased rates for customers.<sup>6</sup>

## **II. PG&E'S RESPONSE TO THE REVISION NOTICE FAILS TO SUPPORT OR JUSTIFY ITS BIASED GRID HARDENING MITIGATION SELECTION PROCESS**

In its Revision Notice, OEIS notes the lack of justification for PG&E's Grid-Hardening Mitigation Selection Process.<sup>7</sup> Repeatedly, OEIS requests PG&E provide an explanation for how its current risk model and existing cost-benefit ratio analysis does not adequately account for these added variables and an explanation for why the additional analytical step is necessary.<sup>8</sup> In Response to the Revision Notice, PG&E repeats the justification that its risk model does not adequately capture all attribute of the risk and, therefore, these additional considerations are necessary, but PG&E does not describe *how* the risk model falls short. PG&E's Response does not address OEIS's concerns, provides no reasoned analysis or justification and is, instead, a conclusory assertion that recycles the very premise it purports to justify. The risk model and CBR calculations already incorporate the factors identified by PG&E (tree strike risks, ingress

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<sup>6</sup> TURN May 23, 2025, Comments on PG&E's 2026-2028 WMP, p. 2.

<sup>7</sup> Revision Notice, p. 8.

<sup>8</sup> Revision Notice, p. 9.

and egress, reliability risks, and other uncertainties) and nothing in PG&E’s Response to the Revision Notice demonstrates otherwise.

As TURN previously asserted, these factors are already incorporated into risk modeling and CBR comparisons of hardening alternatives — and, if they are not, they should be and should be applied equally to all mitigations, not used as a thumb on the scale in favor of undergrounding. And, much like in its past WMP proceedings, “PG&E once again attempts to create its own measure by incorporating these ‘discretionary’ measures into its Decision Tree.”<sup>9</sup> PG&E’s manipulation of its decision-making process should not be permitted to circumvent the requirements of D.22-12-027.<sup>10</sup>

**A. PG&E’s Response Fails to Provide Qualitative Analytical Support for its Selection of a Fifty Percent Cost-Benefit Ratio Threshold for Comparing Hardening Alternatives**

OEIS required PG&E to revise its WMP to provide, “An explanation, including qualitative analytical support, for the 50 percent cost-benefit ratio threshold for selecting undergrounding over CC + EPSS.”<sup>11</sup> PG&E’s Response to the Revision Notice fails to do so.

TURN previously argued that PG&E’s threshold “arbitrarily precludes overhead hardening as an option even when CC+EPSS+PSPS delivers commensurate risk reduction more quickly at a much lower cost and impact on the surrounding environment.”<sup>12</sup> OEIS agreed that PG&E failed to support its decision-making process for system hardening and in its Revision Notice stated:

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<sup>9</sup> TURN May 23, 2025, Comments on PG&E’s 2026-2028 WMP, p. 16.

<sup>10</sup> See D.22-12-027, p. 25 (directing utilities to transition from calculating Risk Spend Efficiency values to Cost Benefit Ratios determined by computing the dollar value of a mitigation’s risk reduction benefit by the cost of the mitigation).

<sup>11</sup> Revision Notice, p. 9.

<sup>12</sup> TURN May 23, 2025, Comments on PG&E’s 2026-2028 WMP, p. 5.

PG&E's decision-making process for system hardening has multiple steps (cost-benefit ratio comparison and hybrid analysis) that are not well explained. Together, these steps favor undergrounding over other system hardening mitigations. PG&E did not explain how it defined the parameters for these steps nor explain why the steps are not already built into its risk model.<sup>13</sup>

Discussing the Cost-Benefit Ratio Comparison, OEIS (and TURN) highlight that, based on its discretionary 50% threshold, PG&E may still select undergrounding even if it is half as cost-effective as CC + EPSS.<sup>14</sup> As noted in OEIS's Revision Notice, PG&E's summaries of highest-risk circuits do not provide an accurate view of the risk reduction for top-risk circuits.<sup>15</sup> PG&E provides that "[t]he primary reason for implementing a 50 percent threshold is to account for significant risks which are not fully represented within a cost benefit analysis. . . ."

In its response to the Revision Notice, PG&E purports to explain why it is reasonable to include a 50 percent threshold in its cost/benefit analysis due to the lack of detailed information regarding ingress/egress, tree strike, and climate change risk models and also why it is reasonable to conduct additional tree strike reviews beyond what is included in the risk model.<sup>16</sup> While it may be true that "[e]stablishing such a threshold to account for the limitations in modeling is a necessary element in all decision-making,"<sup>17</sup> PG&E fails to support making that threshold fifty percent. PG&E cannot arbitrarily assign a numerical threshold and justify it solely on the basis that it compensates for professed deficiencies in its own risk model.

PG&E explains that because the mitigation cost estimates used in the CBR calculation are Class 5 estimates that can vary between +100% to -50% when compared to final costs, 50%

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<sup>13</sup> Revision Notice, p. 6.

<sup>14</sup> TURN May 23, 2025, Comments on PG&E's 2026-2028 WMP, p. 5; Revision Notice, p. 6.

<sup>15</sup> Revision Notice, p. 5.

<sup>16</sup> PG&E Response to Revision Notice, p. 9.

<sup>17</sup> PG&E Response to Revision Notice, p. 9.

is reasonable.<sup>18</sup> First of all, the midpoint of the variation in Class 5 estimates would be 25%, not 50%. Second, PG&E ignores the fact that undergrounding costs could also be understated, inflating the initial CBR value. Based on this logic, the initial CBR for undergrounding could actually be 50% lower than initially calculated. A better solution would be to objectively refine cost estimates on a project-specific basis through a more detailed analysis, which is consistent with TURN's recommendation in Opening Comments to use project-specific costs in the CBR calculation.<sup>19</sup>

Further, we note that PG&E and the Commission have sought to improve risk modeling efforts through multiple RAMP and SMAP proceedings. As the Commission notes, “[w]ith every RAMP filing, parties learn ways to improve upon the risk analysis. Each RAMP effectively serves as a learning exercise with new ideas, lessons learned, and additional incremental changes.”<sup>20</sup> Yet, PG&E obviates the processes established in these proceedings through this arbitrary threshold — inserting an assumption that the CBR for undergrounding may be 50% higher and casting doubt on its entire risk modelling process. Adopting the Cost Benefit Approach was meant to simplify the calculations required by IOUs and replace the weighted methodology used previously.<sup>21</sup> Here, as before, PG&E attempts to circumvent the previously adopted processes by introducing variables it argues must be considered to properly ascertain the “Net Benefit” of any mitigation, undermining the foundational principles of the modelling framework.

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<sup>18</sup> PG&E Response to Revision Notice, p. 10.

<sup>19</sup> TURN May 23, 2025, Comments on PG&E's 2026-2028 WMP, p. ii.

<sup>20</sup> D.22-12-027, p. 28.

<sup>21</sup> D.22-12-027, pp. 24-25.



**B. PG&E’s Response Fails to Provide Support for its Inclusion of Ingress and Egress Concerns in the Hybrid Analysis for Comparing Hardening Alternatives**

In its Revision Notice, OEIS correctly notes that “PG&E added a new ingress/egress component to its consequence modeling so the risk associated with ingress and egress should already be captured in the cost-benefit ratio analysis.”<sup>22</sup> OEIS required PG&E to revise its WMP to provide:

An explanation for the ingress and egress concerns threshold in the hybrid analysis, including how PG&E’s current risk model and the existing cost-benefit ratio analysis does not adequately account for ingress and egress risks and a description of the uncertainties in the risk modeling that necessitate an additional analytical step in the system hardening decision-tree.<sup>23</sup>

PG&E’s Response to the Revision Notice fails to do so.

In its Response, PG&E once again attempts to justify its redundant attribution by stating that the CBR fails to adequately capture the risk associated with the stated peril.<sup>24</sup> Even if PG&E were right to question its risk model, any additional risk identified would apply to all mitigation methods and, while the additional risk may increase the need to mitigate, it does not at all affect the comparative assessment of cost-effectiveness among alternatives. PG&E cannot just use additional, “inadequately captured” risks to justify double counting the benefit of undergrounding without also demonstrating that other mitigation measures fail to mitigate against these additional risks. PG&E’s model doesn’t do that. Additionally, PG&E cannot continue to choose a risk model then blame the limitations in the risk model as justification to ignore it in their decision-making process.

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<sup>22</sup> Revision Notice, p. 8 (citing WFC v4 Documentation, page 26).

<sup>23</sup> Revision Notice, p. 9.

<sup>24</sup> PG&E Response to Revision Notice, p. 10.

PG&E’s bias toward undergrounding is exacerbated by its narrow focus on undergrounding as the only mitigation solution it considers in response to higher ingress/egress risk. Because “egress issues [are] not related to road infrastructure, but rather who has the physical ability to leave and when the decision to leave [is] made[,]” it is not evident how undergrounding mitigates this specific risk any more than other mitigations.<sup>25</sup> Once again, PG&E has found a subjective criterion to bias the selected solution to undergrounding. The purpose of the decision tree cannot just be to justify undergrounding; it must be required to select the most appropriate, cost-effective, mitigation.

**C. PG&E’s Response Fails to Provide Support for its Inclusion of Tree Strike Risk Concerns in the Hybrid Analysis for Comparing Hardening Alternatives**

In its Revision Notice, as a remedy, OEIS required PG&E to provide:

An explanation for the tree strike potential threshold in the hybrid analysis, including why the categorization for “high” tree strike potential changed, how PG&E’s current risk model and the existing cost-benefit ratio analysis does not adequately account for tree strike risks, and a description of the uncertainties in the risk modeling that necessitate an additional analytical step in the system hardening decision-tree.<sup>26</sup>

PG&E has done none of these things.

In its Revision Notice, OEIS notes that in PG&E’s 2023-2025 WMP, high tree strike potential was defined as the possibility of 15 or more trees that could strike a line. In the current WMP, that number decreases to 6. OEIS notes that PG&E fails to explain or justify the reasoning and impact of its categorization of “high” tree strike potential from fifteen to six.

PG&E’s Response to the Revision Notice states that “[t]he information captured in the CBR for

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<sup>25</sup> PG&E Response to Revision Notice, p. 14.

<sup>26</sup> Revision Notice, p. 9.

tree strike risk is very high-level, aggregated data”<sup>27</sup> and that including another consideration of tree strike risk potential “ensures our mitigation strategies address a limitation of our current risk model.”<sup>28</sup> This explanation offers no substantive justification and is devoid of analytical support. Instead, PG&E’s Response reveals the retrospective justification to support a predetermined outcome that creates greater weight in favor of undergrounding.

Part of PG&E’s undergrounding decision tree includes a more granular, locational assessment of “tree strike risk.” Where PG&E deems the tree strike risk to be high, the likely result is a preference for undergrounding, along with other factors.<sup>29</sup> PG&E’s response indicates that this additional factor is intended to supplement higher level information included in the CBR calculation:

Including detailed, location-specific tree strike assessments in our risk management enables more effective, targeted mitigation decisions to address risks in that specific location. Evaluating tree strike risks with up-to-date, location-specific data ensures our mitigation strategies address a limitation of our current risk model.<sup>30</sup>

TURN has absolutely no objection to enhancing modeling inputs to create more accurate risk scores and CBRs. Yet, the Tree Strike risk criterion is a perfect example of how PG&E biases its decision tree to the most expensive capital project, undergrounding. High “tree strike risk” does not necessarily mean undergrounding is the best solution.

First, vegetation management programs can be utilized to mitigate this risk. As noted by OEIS, “vegetation risks are already considered in PG&E’s risk modeling and cost-benefit ratio calculation, but PG&E does not explain why its existing calculations do not adequately capture

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<sup>27</sup> PG&E Response to Revision Notice, p.11.

<sup>28</sup> PG&E Response to Revision Notice, p. 11.

<sup>29</sup> PG&E 2026-2028 WMP Vol. 1, p. 184.

<sup>30</sup> PG&E Response to Revision Notice, p. 11.

high tree strike potential.”<sup>31</sup> There is no comparison at all made to this solution in PG&E’s decision tree. PG&E has had vegetation management programs for both *healthy* and *unhealthy* trees since 2019, spending billions of dollars *over* GRC authorized amounts to implement these large-scale programs. The level of tree removal under these programs was massive and unwarranted, going even far beyond the risk posed by trees, particularly the “Enhanced Vegetation Management” program. Yet the utility still wishes to use “tree risk,” which should have been largely mitigated under these programs if they were accomplished effectively, to justify its plans for massive levels of undergrounding.

Risky trees or branches can be removed at a fraction of the price, and just being a tall tree does not make it a “risk.” Most critically, Covered Conductor with EPSS and Downed Conductor Detection (DCD), as well as PSPS, are highly effective programs for mitigating vegetation-related ignitions. These programs have 79% and 84% mitigation effectiveness, according to PG&E.<sup>32</sup> From a wildfire risk perspective, assuming “Tree Strike Risk” can only be mitigated with undergrounding is a perfect example of the bias inherent in PG&E’s decision tree, and is factually specious.

### **III. PG&E’S RESPONSE TO THE REVISION NOTICE FAILS TO SUPPORT OR JUSTIFY ITS INCLUSION OF CLIMATE CHANGE RISK AS AN ADDITIONAL INDEPENDENT VARIABLE**

PG&E’s revision response states that mitigation effectiveness values assumed for overhead solutions could be overstated due to climate change, and that climate change will exacerbate severe wildfire weather, which “creates uncertainty around the lifespan of overhead (OH) mitigation measures.”<sup>33</sup> PG&E provides no source or data that demonstrates a change in

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<sup>31</sup> Revision Notice, p. 7.

<sup>32</sup> PG&E 2026-2028 WMP, p. 190.

<sup>33</sup> PG&E Response to Revision Notice, p. 11.

