PACIFIC GAS AND ELECTRIC COMPANY
10 Year Electrical Undergrounding Plan (EUP)
Data Response

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Requesting Party:	Office of Energy Infrastructure Safety
Requester:	David Rey
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SUBJECT: ALTERNATIVE MITIGATIONS AND PORTFOLIO PROJECT SELECTION

Basis and Application of the 70% BCR Threshold

QUESTION 005

Provide the basis for applying the 70% BCR comparison threshold described in EUP Chapter 3:

a. Provide the quantitative analysis, empirical evidence, or other documentation supporting the use of a uniform 30% estimate-uncertainty allowance across projects and mitigation types. Distinguish uncertainty in project costs from uncertainty in modeled benefits and BCRs.
b. Explain how the 30% allowance is translated into the 70% comparative BCR rule, including whether it represents a statistical confidence interval, estimating range, or policy-based screening tolerance.
c. Identify each Confirmed Project where the BCR of 100% undergrounding or AC2 was between 70% and 100% of the S3 AM BCR. For each, provide the comparison BCRs, mitigation selected, and rationale for selection.
d. Explain whether PG&E performed sensitivity analyses using different uncertainty thresholds or project-specific uncertainty ranges. Provide any existing results and describe how the project-selection outcome would differ without the 70% rule.

ANSWER 005

a. As described in PG&E's EUP (Volume 1, Chapter 3, pp. 136–137), the 30 percent estimate uncertainty range is based on:
    - Industry-standard estimating practice (AACE cost estimate classifications), which recognizes that cost estimates developed during project scoping are not yet fully mature;
    - Energy Safety's recommendation in its Decision on PG&E's 2026–2028 Base WMP (February 5, 2026, pp. 19–20) to reduce PG&E's prior 50 percent

estimate uncertainty range to 30 percent, reflecting improvements in data quality and modeling while still accounting for residual uncertainty in the decision-making process; and

- Inherent uncertainty in modeled risk point estimates, driven by compounding assumptions, variability in inputs, and structural limitations of quantitative risk models.

The first basis relates to uncertainty in project cost estimates, which affects the denominator of the BCR. Modeled risk reduction benefits, which affect the numerator, are also subject to uncertainty. PG&E did not develop a separate quantitative analysis for the EUP filing to derive the 30 percent value or quantify separate uncertainty allowances for cost and modeled benefits. Consistent with Energy Safety's WMP Decision, PG&E uses the 30 percent estimate uncertainty range in applying the comparative BCR rule described in Chapter 3.

However, PG&E did provide a quantitative estimate of the uncertainty factor relevant to risk reduction benefits, in the Joint Reply Comments for Application A.26-02-005, filed July 7, 2026, filed jointly with SDG&E and Southern California Edison. That analysis, which begins on page 44 of the document, illustrates how the aggregation of several uncertainty components in modeling and effectiveness values results in a downside uncertainty between 26.9%-39.4% for mitigations that include covered conductor. This analysis supports 30 percent as a reasonable approximation of uncertainty in modeled mitigation benefits.

b. The 70 percent figure is 100 percent minus the 30 percent estimate uncertainty range and is not a separate or additional threshold (Chapter 3, p. 136). It is not a statistical confidence interval or a policy-based screening tolerance and does not mean that every cost estimate, risk estimate, or resulting BCR carries a uniform 30 percent statistical uncertainty.

c. Confirmed projects 8, 10, 13, 15, 16, 17, and 19 all were selected with the use of the 70% comparative BCR rule. Each were selected following the decision tree outlined in Figures 3-7 and 3-8. See "*EUP-PhI_DR_OEIS_003-Q005Atch01.xlsx*" for details.

d. PG&E did not perform sensitivity analyses using alternative uncertainty thresholds or project-specific uncertainty ranges for the EUP filing. Without the 70 percent rule, the alternative with the highest modeled BCR would have been selected for each project identified in response to part (c), subject to the Additional Comparison 3 review described in Chapter 3, pp. 140–141.