

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Further
Develop a Risk-based Decision-making
Framework for Electric and Gas Utilities

Rulemaking 20-07-013

**CAL ADVOCATES' RECOMMENDATION TO DEVELOP RISK
MITIGATION PROJECT TEMPLATES IN RULEMAKING 20-07-013
WORKSHOP 5**

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I. INTRODUCTION

Pursuant to the *Assigned Commissioner's Phase 3 Scoping Memo*¹ in this Rulemaking (R.) 20-07-013,² the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits its Risk Assessment Mitigation Phase (RAMP) Reporting Templates proposals.

Cal Advocates asserted at the April 11, 2023, Prehearing Conference that utilities' previous RAMP and General Rate Case (GRC) filings lack granular project-level data necessary to support the utilities' proposed risk mitigation programs and to demonstrate how the utilities determined specific targets and forecasts, such as undergrounding mileage. To help address these deficiencies in utilities' filings, Cal Advocates created two draft templates appended to its Post Prehearing Conference (PHC) Statement (Post PHC Statement): Sample Mitigation Program Selection Template and Sample Mitigation

¹ R.20-07-013, *Assigned Commissioner's Phase 3 Scoping Memo and Ruling Extending Statutory Deadline* (Scoping Memo), May 31, 2023, at 18 (Phase 3 schedule) and 23 (Rulings). Accessed at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M510/K287/510287300.PDF>.

² R.20-07-013, *Order Instituting Rulemaking to Further Develop a Risk-Based Decision-Making Framework for Electric and Gas Utilities* (RDF), July 24, 2020.

Program Progress Template.³

Subsequently, the Safety Policy Division (SPD) made recommendations to the decision-makers to include this issue for discussion in Phase 3.⁴ Shortly after, the Assigned Commissioner included Cal Advocates' issues in the Scoping Memo asking: "Should the Commission adopt required templates for data presentation for use in the RAMPs? If so, what should be the information requirements and format of the templates?"⁵

To increase transparency as to whether the utility prioritized the most cost-effective mitigation programs and areas with the highest risks, Cal Advocates recommends that the Commission adopt Cal Advocates' proposed templates that include granular data and metrics for use in both RAMP and GRC filings. The proposed templates are included as an Excel spreadsheet in Attachments A.

II. DISCUSSION

Risk Mitigation Project Templates Objectives

The appended Mitigation Project Selection Template and Mitigation Project Progress Template (collectively, Risk Mitigation Project Templates) focus on providing information necessary for the Commission, in combination with input from parties, to achieve these key objectives:

1. Expedite collection and reporting of mitigation project level information necessary for the Commission and parties to critically evaluate proposed utility mitigation program projects, given the exponential rise of ratepayer bills,
2. Consolidate, in a useful format, information necessary for the Commission

³ *Public Advocates Office Reply and Post Prehearing Conference Comments*, April 21, 2023, at Attachments A and B. Accessed at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M507/K237/507237010.PDF>

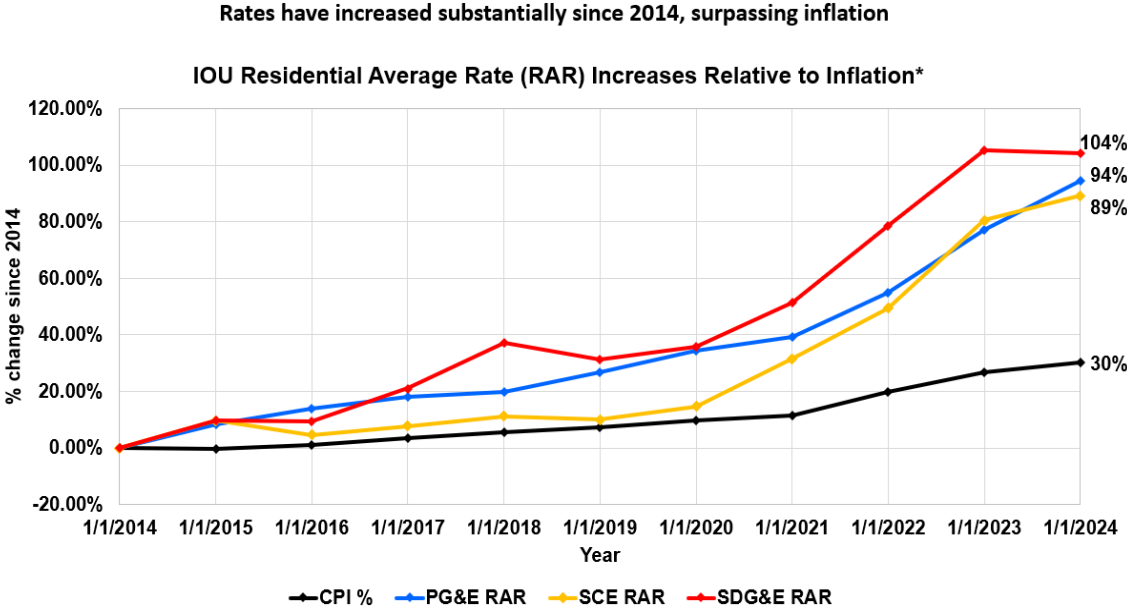
⁴ SPD email to Cal Advocates, Subject: Suggested Phase III Issue for "Templates and Granular Program Data", May 15, 2023.

⁵ R.20-07-013, Scoping Memo at 11-12 and 14.

and parties to critically evaluate prioritization and progress of utility risk mitigation projects. This is necessary to reduce the cost and impacts to ratepayers and utilities from avoidable catastrophic events, and to provide necessary information for the Commission to ensure utilities prioritize and complete work on projects that mitigate the utility’s highest risk areas.

In part, these objectives are intended to address ratepayer bill increases, which have been significantly outpacing inflation in the past decade,⁶ as shown in Figure 1 below:⁷

FIGURE 1: IOU Residential Average Rate Increases Relative to Inflation



*Showing forecasted authorized rates for January 1, 2024, as of Q3 2023, and using latest CPI index from August 2023 as an estimate for January 2024.

Rising rates highlight the need for critical review of the necessity, benefits, and cost effectiveness of risk mitigation programs. Current RAMP applications lack the granular detail necessary for the Commission and parties to assess the cost effectiveness

⁶ Cal Advocates Analysis of Investor-Owned Utilities (IOU) Electric Rate Quarterly Reports for Q3 2023. The Q3 2023 IOU Electric Rate Quarterly Report presents the volumetric electric rates for residential bundled customers in PG&E, SCE, and SDG&E’s service territory.

⁷ Figure 1 does not include rate increases from pending applications, including GRC applications.

and risk reduction benefits of proposed risk mitigation programs, at the project level,⁸ in RAMP and GRC filings. The Commission should require utilities to provide this information in both RAMP and GRC filings so that the Commission and parties can assess whether utilities are prioritizing mitigation programs that are the most cost effective and/or targeting the greatest risks.

A. The proposed templates provide necessary information for the Commission and parties to understand and evaluate utility proposed mitigation projects.

The Risk Mitigation Project Templates consist of two templates with the following information:

Mitigation Project Selection Template:

1. Mitigation Program – Selected mitigation program to implement. (e.g., Electrical Undergrounding, Covered Conductor, REFCL, Pipeline Replacement, etc.)
2. Mitigation Project Name – Selected mitigation project to implement at the project level (e.g., Electric Undergrounding Circuit Name ID, Covered Conductor Circuit Name ID, Pipeline Replacement Project ID, REFCL Circuit Name ID, etc.)
3. Risk Ranking – Utility risk ranking of the project.
4. Mitigation ID – Unique identification for specific projects.
5. Primary Risks Mitigated – Primary risks targeted to mitigate.
6. HFTD and HFRA Designations (as applicable) – High-Fire Threat District (HFTD) and High Fire Risk Area (HFRA) Designations.
7. Location – Location spatial data for mitigation project.
8. County – County in which project is located.
9. Primary Mitigation Unit – Primary mitigation unit metric for mitigation

⁸ In the interest of this discussion, “project level” refers to individually scheduled projects (e.g., undergrounding Circuit Segment A vs undergrounding Circuit Segment B).

project implementation (e.g., miles, poles, etc.).

10. Forecast Total Project Units to Complete Over Project Timeline – Total forecast target units expected to complete for the entire project over the project timeline (e.g., undergrounding 50 miles in Circuit Segment A over the 3-year project timeline)..
11. Forecast Project Cost per Unit – Forecast mitigation project cost per unit.
12. Forecast Total Cost of Mitigation Project – Total cost for scope of mitigation project or the GRC cycle that the mitigation is applied.
13. Mitigation Effectiveness – The mitigation effectiveness for implementation of this specific mitigation project.
14. Mitigation Effectiveness Formula – The formula, metrics, and specific values used by the utility to calculate the effectiveness for implementation for this specific mitigation project.
15. Risk Reduction – The risk reduction calculated for implementation of this specific mitigation project.
16. Risk Reduction Formula – The formula and specific values used by the utility to calculate baseline risk and the risk reduction for implementation for this specific mitigation project.
17. CBR – Cost-Benefit Ratio (CBR) calculated for implementation of this specific mitigation project.
18. CBR Formula – The formula and specific values used by the utility to calculate the CBR for this specific mitigation project.
19. Timeline for Installation – Project timeline from start to completion (e.g., 2022-2024).
20. Units per Year – Number of units to be implemented per year.
21. Justification for Project Duration and Scope – Utility to describe how it identified the scope and pace of work chosen for the project.
22. Factors or Considerations Impacting Project Choice – Utility to provide additional considerations supporting the project choice (e.g., ingress/egress, population, environment, etc.).

23. Long-Term Program Target Units – The goal of the program that the project is a part of; identification of total units/miles to complete beyond the GRC cycle (program level target for entire service territory).
24. Long-Term Goal Program Timeline – Forecast completion date to meet the long-term goal program target unit in entire service territory.
25. Discussion of Key Constraints – Discussion of key constraints that may interfere with project plan (e.g., permitting, funding, sourcing, staffing, etc.) and how the utility has addressed this in the mitigation project. This should include past performance.
26. Alternatives – Evaluation of different alternatives available to mitigate risk in the identified project location (can be single or combinations of mitigation projects). (e.g., Covered Conductor, Covered Conductor + REFCL, etc.)
27. Notes or Comments – Column for additional information not otherwise captured. This could include references or explanation.

Mitigation Project Progress Template (reports project details for each year of the entire project):

1. Mitigation Program – Selected mitigation program to implement. (e.g., Electrical Undergrounding, Covered Conductor, REFCL, Pipeline Replacement, etc.)
2. Mitigation Project Name – Selected mitigation project to implement at the project level (e.g., Electric Undergrounding Circuit Name ID, Covered Conductor Circuit Name ID, Pipeline Replacement Project ID, REFCL Circuit Name ID, etc.)
3. Forecast Total Project Units to Complete Over Project Timeline – Total forecast target units expected to complete for the entire project over the project timeline (e.g., undergrounding 50 miles in Circuit Segment A over the 3-year project timeline).
4. Actual Total Project Units Completed Over Project Timeline – Actual number of units completed for the entire project over the project timeline. Utilities can report on current project status at time of reporting if the project timeline is not completed during submission of templates. (e.g., undergrounded 30 miles instead of the forecasted 50 miles in Circuit

Segment A over the 3-year project timeline).

5. Estimated Risk Reduction – The estimated risk reduction calculated for implementation of this specific mitigation project.
6. Imputed Risk Reduction – The imputed risk reduction calculated for implementation of this specific mitigation project. Using the same risk model, the utilities should run the risk model again after the work is completed, comparing how much risk has been reduced from the actual number of units completed in 2020 versus the estimated risk reduction. Utilities should use both the original risk model and the newer risk model, if the risk model has been updated, to calculate the imputed risk reduction.
7. Primary Mitigation Unit – Primary mitigation unit metric for mitigation project implementation (e.g., miles, poles, etc.).
8. Forecast Project Cost per Unit – Forecast mitigation project cost per unit.
9. Actual Cost per Unit – Actual mitigation project cost per unit at the time of implementing the mitigation project. Utilities could average the cost per unit if it varied throughout the year of the project.
10. Estimated CBR – Estimated Cost-Benefit Ratio (CBR) calculated for implementation of this specific mitigation project.
11. Actual CBR – Actual Cost-Benefit Ratio (CBR) calculated for implementation of this specific mitigation project.
12. Forecast Completion Date –Forecast completion date of the entire project (e.g., 2026 Q4).
13. Actual Completion Date – Actual completion date of the entire project. This variable would only be completed on the year that the project is completed.
14. Forecast Project Units to Complete in 2022 – Forecast target units expected to complete in 2022(e.g., undergrounding 15 miles in Circuit Segment A in 2022).
15. Actual Project Units Completed in 2022 – Actual number of units completed in 2022 (e.g., undergrounded 10 miles in Circuit Segment A in 2022).

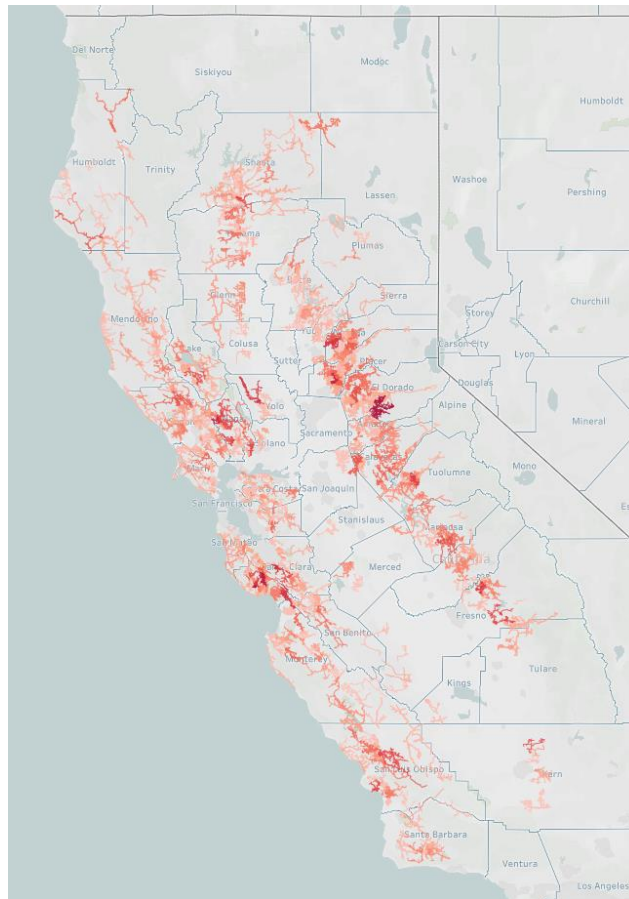
This information in the proposed templates is necessary for the Commission and parties to meaningfully assess the specific mitigation programs and projects proposed in utility RAMP and GRC filings, and to determine whether the utility prioritized the most cost-effective mitigation programs and in areas with the highest risks.

B. Graphical displays of circuit segments that experience the greatest risk to demonstrate needs for prioritization.

In addition to the attached templates, the utilities should provide spatial location information, aggregated at a level suitable for the Commission, to readily identify locations subject to the greatest risk of outages, wildfire, etc. In addition, the utilities should provide spatial information regarding the risks and progress of the specific mitigation projects.

The example below is a map of fast trip events that demonstrate the frequency of events occurring on each circuit. Outages, including outages initiated by fast trip events, represent a significant risk to customers, particularly vulnerable and access and functional needs members of the public. In this sample map, below, the darker shade of red indicates the locations that experience more frequent fast trip events, and the lighter shades show the locations that experience fewer fast trip events.

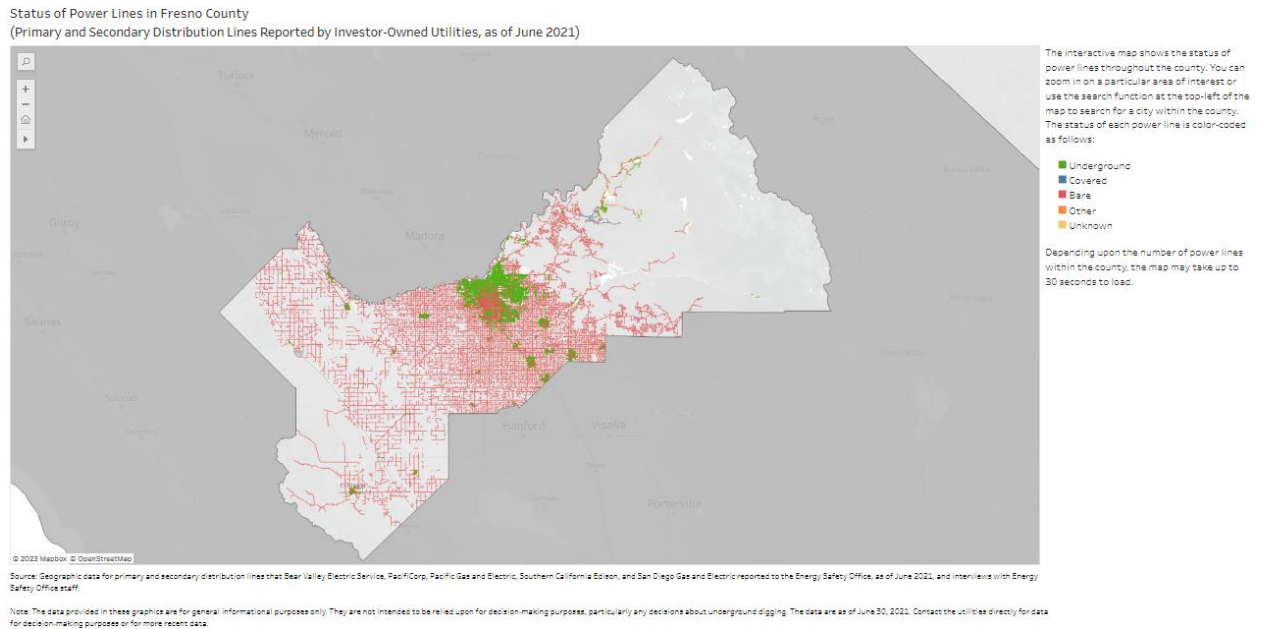
FIGURE 2: Circuit Fast Trip Event Map



Graphical displays of the circuit segments in the utilities' service territories that experience the greatest risk, and where proposed mitigation projects will be implemented, will help to highlight whether utilities are prioritizing the greatest risk. As such, these maps can aid decision-makers' determinations as to which projects to approve in GRCs.

As another example, the California State Auditor uses 2021 spatial data to provide an interactive map showing powerlines status throughout the state:

FIGURE 3: Example of California State Auditor interactive website graphical color coding of powerlines indicating “Undergrounding, Covered, Bare, Other, and Unknown” using 2021 spatial data⁹



C. Utilities raised preliminary concerns regarding Cal Advocates’ Risk Mitigation Project Templates.

Cal Advocates met with parties and utilities ahead of the workshop for preliminary feedback on these templates in which the utilities raised the following initial concerns:

1. The templates may include some non-applicable fields.

Cal Advocates understands that not every field can be filled out during the RAMP phase and not every program can be detailed at the project level. Furthermore, some fields may not be applicable until after the GRC period when the work is already completed, such as calculations of the actual or imputed risk reduction of mitigation projects. In such instances, the utilities can leave fields blank, aggregate programs at the tranche or program level, and/or input data in the next filing when the data is available.

⁹ <https://auditor.ca.gov/reports/2021-117/supplemental-line-status.html>

But the Commission should require utilities to include the most granular data that is available in all circumstances.

2. Duplicative reporting of data across different filings may cause undue burden.

The information in the attached templates may, to a limited extent, overlap with information provided for the Office of Energy Infrastructure Safety’s Wildfire Mitigation Plans (WMPs) and the Risk Spend Accountability Reports. These templates, however, consolidate key, necessary, project information into a format useful to the Commission to critically evaluate proposed utility mitigation program projects. This information is necessary to inform decision-making of GRC proposals, therefore, it is appropriate to include these data in the RAMP and GRC process for efficiency and effectiveness. Furthermore, WMPs only cover wildfire risk, a subset of the risks that are evaluated in RAMP and GRC proceedings.

Similarly, the Risk Mitigation Project Templates differ from Pacific Gas & Electric Company’s (PG&E) Transparency Guidelines¹⁰ and Southern California Edison’s (SCE) Transparency Pilot¹¹ which focuses on the utilities’ risk models and methodologies used to determine assumptions, risk calculations, and input parameters. Cal Advocates’ Risk Mitigation Project Templates focus on the cost and performance effectiveness of the mitigation projects, providing information on how the utilities scoped their projects at a practical project level, and provide information necessary to understand and ensure utilities are accountable to complete the necessary safety, reliability, and maintenance work. Additionally, the proposed templates are expected to be completed using monetized values, consistent with D.22-12-027,¹² rather than unitless risk scores.

¹⁰ D.21-11-009, *Decision Addressing Phase I, Track 1 & Track 2 Issues*, November 9, 2021, at Appendix C: PG&E Transparency Proposal as Modified.

¹¹ R.20-07-013, *SCE’s Submission Regarding PG&E’s Transparency Proposal*, June 14, 2023.

¹² D.22-12-027, *Phase II Decision Adopting Modifications to the Risk-Based Decision-Making Framework Adopted in D.18-12-014 and Directing Environmental and Social Justice Pilots*, December 21, 2022.

Lastly, utilities questioned how the Risk Mitigation Project Templates would overlap with the Risk Mitigation Accountability Report (RMAR). The purpose of the RMAR is to compare the utility GRC projections of the benefits and costs of the risk mitigation programs adopted in the GRC with the actual benefits and costs and explain any discrepancies.¹³ As SPD stated, the RMAR is an important tool for addressing accountability and transparency regarding the risk reduction achieved from investments in mitigation projects, which is still missing from the RDF.¹⁴ However, the RMAR was identified as a potential issue to address in Phase 4 of this proceeding,¹⁵ which means a decision is expected no earlier than 2025. Cal Advocates Risk Mitigation Project Templates will also help inform future RMAR to assess whether utilities' mitigation programs are performing as expected to reduce risk and by how much. This assessment is necessary to determine what works, what does not work, and whether expectations are being met to make effective use of ratepayers' funds.

3. Reporting at the project level will yield an excessively large data set.

Cal Advocates does not disagree that reporting on risk mitigation programs at the project level for all enterprise risks may yield a large data set. However, this information is necessary to evaluate how a utility's risk assessment during the RAMP led to the utility's development of specific GRC mitigation programs. Additionally, project level data will increase accountability, streamline analysis, and allow direct comparison of RAMP and GRC filings, and enable utilities to both learn from each other and to optimize mitigation programs, and reduce ratepayers' costs.

D. Utilization of the Risk Mitigation Project Templates

¹³ D.14-12-025, *Decision Incorporating a Risk-Based Decision-Making Framework into the Rate Case Plan and Modifying Appendix A of Decision 07-07-004*, December 9, 2014, at 12.

¹⁴ D.20-07-013, *Assigned Commissioner and Assigned Administrative Law Judges' Ruling Issuing Phase III Roadmap for Comment and Scheduling Prehearing Conference (Phase III Roadmap), Attachment A: Safety and Policy Division Proposed Phase III Roadmap*, March 13, 2023, at 4.

¹⁵ Scoping Memo at 14-15.

should begin with 2025 RAMP and 2027 GRC filings.

The Commission should require the utilities to implement the Risk Mitigation Project Templates in their RAMP and GRC filings starting with San Diego Gas & Electric Company's and Southern California Gas Company's (collectively, the Sempra Utilities) 2025 RAMP filing and PG&E's Test Year (TY) 2027 GRC filing, and submit updated templates annually.

PG&E will be filing its 2024 RAMP application shortly after the issuance of the expected Proposed Decision of Phase 3 of R.20-07-013 and will not have a chance to incorporate the Risk Mitigation Project Templates into its RAMP (if the proposed templates were adopted). However, if the Commission postpones PG&E's utilization of these templates until its 2028 RAMP filing, parties will not have a chance to assess whether PG&E is proposing the most cost-effective mitigation projects targeting the areas of greatest risk for another four years. Consequently, ratepayers could bear the cost of unforeseen rate increases of PG&E's TY 2027 GRC filing. Therefore, PG&E should include these templates in its TY 2027 GRC filing.

III. CONCLUSION

The Commission should adopt Cal Advocates' proposed templates for use in both RAMP and GRC filings, starting with the Sempra Utilities' 2025 RAMP filing and PG&E's TY 2027 GRC, so that the Commission and parties can review information necessary to determine whether the utilities plan to prioritize the most cost-effective mitigation programs in the riskiest areas.

Respectfully submitted,
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ATTACHMENT A

Templates in Excel Spreadsheet