

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric
Company (U902M) for Review of its Safety
Model Assessment Proceeding Pursuant to
Decision 14-12-025.

And Related Matters

Application 15-05-002
(Filed May 1, 2015)

Application 15-05-003
Application 15-05-004
Application 15-05-005

**OFFICE OF RATEPAYER ADVOCATES' COMMENTS
ON SAFETY AND ENFORCEMENT DIVISION'S EVALUATION REPORT
ON THE RISK EVALUATION MODELS AND
RISK-BASED DECISION FRAMEWORKS**

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I. INTRODUCTION

Pursuant to Administrative Law Judge (ALJ) Kersten's March 22, 2016 Email Ruling requesting comments on the Safety and Enforcement Division's (SED) Staff Evaluation Report on Risk Evaluation Models and Risk-Based Decision Frameworks, the Office of Ratepayer Advocates (ORA) submits its Comments on the SED Report¹ (hereafter, "Report" or "SED Report"). Lack of discussion herein does not represent agreement or disagreement with SED's or any party's comments.

II. SUMMARY

The SED Report appears to be a well-considered, reasonable, and measured assessment of the utilities' current risk assessment frameworks, alternative frameworks, and actions necessary to continue the risk assessment and mitigation process at the Commission. The Report recognizes strengths, but clearly identifies weaknesses and areas to be addressed going forward, with explicit and clear recommendations on many improvements or changes.

ORA offers the following comments and recommendations and addresses each recommendation, in turn, in the Discussion section below:

- Any adoption of an explicit risk tolerance should be accompanied by more probabilistic measurements and may necessitate further changes to frameworks, data gathering, or specific mitigation measures.
- Concerns about the utilities' current methodologies, including lack of comparability; transparency and repeatability issues, and lack of optimization ability are significant and should be addressed.
- Although concerns about heavy reliance on Subject Matter Expertise (SME) are valid, the Intervenor Methodology does not inherently rely heavily on SMEs as claimed in the Report. Calibration for data sensitivity could address instances where the use of SME data is most problematic.
- Shareholder financial considerations should be removed from utility models, although some ratepayer financial considerations may warrant consideration on a case-by-case basis.
- For gas utilities, ORA recommends that SED examine and report on the requirements of the Transmission and Distribution Integrity

¹ Safety and Enforcement Division Evaluation Report on Risk Evaluation Models and Risk-based Decision Frameworks in A.15-05-002, et al. (SED Report).

Management Programs (TIMP and DIMP, respectively) within the broader utility implementation of the Safety Model Assessment Proceeding (SMAP) process in the next SMAP proceeding.

- ORA agrees with SED’s alternative proposal limiting reported risks to Level 3 in the Risk Assessment Mitigation phase (RAMP) proceeding.
- A specific timeline or roadmap should be developed by the Commission to provide utilities, intervenors, and the Commission guidance on transitioning to new and/or improved risk assessment and mitigation frameworks.
- The establishment of an SED-led Working Group could serve to keep parties engaged and build on the progress made in this proceeding.

III. DISCUSSION

A. **Adoption of a Risk Tolerance Limit Should Be Accompanied By More Probabilistic Measurements, But May Necessitate Additional Framework Changes**

Recommendation #1 in the SED Report proposes to “adopt explicit risk tolerance standards,”² stating that “consideration of risk tolerance is integral to risk management,” and further discussing the impossibility of “absolute safety,” the limitations of a “finite amount of safety budget,” and the tradeoff between “unrealistically high expectations of safety and utility rate affordability.”

Such policy decisions are best informed through carefully-considered analysis of policy goals, safety priorities, and available data. As any risk tolerance limit is considered or enacted, the Commission should clearly state the intention of assessing any risk tolerance probabilistically. This will help ensure that the risk tolerance limit is measured as objectively as possible and will help reduce uncertainties and risks associated with using SME judgement, estimation, or other unquantifiable metrics.

ORA notes that adoption of an explicit risk tolerance may necessitate additional changes in data gathering, risk framework, or risk mitigation depending on the breadth and type of risk tolerance adopted. The Commission should consider the effects of adopting a specific risk tolerance in the SMAP and RAMP processes, and allow sufficient time for any adopted risk tolerance limit to be fully integrated into risk measurement and mitigation measures.

² SED Report, p. 99.

B. Concerns About the Existing Frameworks Used by the Utilities Are Well-Founded and Should Be Addressed

The SED Report raises many concerns about the utilities' current risk assessment frameworks, including that they cannot be compared to each other,³ the lack of ability to truly optimize mitigation spending,⁴ the use of a logarithmic risk measurement scale,⁵ and issues around transparency and repeatability,⁶ among others. ORA shares these concerns and urges the Commission to develop a concrete timeline to address these shortcomings.

ORA agrees with SED's statement that "the burden is on the utility applicant, and not on the other stakeholders, to demonstrate that the utilities' proposed risk mitigation activities are conducive to achieving its risk tolerance objectives."⁷ ORA notes, as an illustrative example, that in response to discovery in the 2017 General Rate Case, PG&E stated:

[PG&E] is not able to quantify the increase or decrease in safety associated with an increase or decrease in funding allocated to a given program or capital project. PG&E and the other large IOUs, along with intervenors and the Commission, are discussing a similar topic in the S-MAP. In the S-MAP, parties are exploring how to measure risk reduction associated with the implementation of safety-related risk mitigation measures.⁸

As ORA has noted in previous comments,^{9,10} the ability to compare risks and potential risk mitigations across utilities is an important step in making risk methodologies more effective and more useful for the Commission and all parties. While ORA acknowledges that not all aspects of the utilities will be comparable, the Commission should set a path towards greater commonality and comparability in the utilities' risk assessment frameworks. The ability to compare safety, cost, reliability, and environmental aspects of risk between and among utilities will streamline Commission proceedings; will provide greater clarity on risks (and the costs to

³ SED Report, p. 57.

⁴ SED Report, p. 11.

⁵ SED Report, p. 90.

⁶ SED Report, p. 96.

⁷ SED Report, p. 89.

⁸ GRC-2017-PhI_DR_ORA_091-Q13, Attached.

⁹ ORA Comments on Joint Intervenor Whitepaper, A. 15-05-002, Filed February 12, 2016, pp. 6-7.

¹⁰ ORA Reply Comments on Joint Intervenor Whitepaper, pp. 4-5.

mitigate them) to the Commission, parties, and the IOUs themselves; and will provide opportunities for parties and the IOUs to learn from each other and improve the process and their evaluation methodologies. This commonality should not hinder important distinctions between utility operations and approaches to addressing risks, but instead allow the Commission and intervenors the basis to understand how different threats pose different risks and consequences to each utility.

ORA agrees with SED's assessment that "none of the utilities have a way to optimize their portfolio in a mathematically rigorous sense."¹¹ While it may not be reasonable to expect a full portfolio optimization process at this point in time, optimization is something that would clearly benefit safety, ratepayers, the Commission's evaluations, and the utilities themselves. The Commission should set a process to move towards more data-based risk and risk-mitigation measurement in order to support optimization of utilities' safety portfolios. ORA recommends the Commission establish a SED-led working group to continue working on these issues in advance of the next SMAP proceeding.

As the SED Report notes, "the indexing approach based on a logarithmic scale of integer scores creates significant distortion in perception of the true magnitude of frequency and impact variables and the resulting risk scores."¹² While rankings on a logarithmic scale may provide an approximate safety prioritization, prioritization is not the same as optimization,¹³ and prioritization alone is clearly insufficient, as ORA discussed in its Reply Comments on the Joint Intervenor White Paper.¹⁴ A logarithmic scale is inherently non-intuitive (especially at intermediate or mid-range values¹⁵), more difficult to understand than a linear scale,¹⁶ and can lead to skewed perceptions of risks and risk mitigation.¹⁷ The Commission should consider a shift from logarithmic to linear scales in a risk methodology development timeline.

¹¹ SED Report, p. 11.

¹² SED Report, p. 90.

¹³ SED Report, p. 11.

¹⁴ ORA Reply Comments on Joint Intervenor Whitepaper, p. 4.

¹⁵ SED Report, pp. 8-9.

¹⁶ SED Report, p. 49.

¹⁷ SED Report, pp. 8-9.

ORA agrees with both SED’s assessment of the current models as being “marked by weak transparency and questionable repeatability” and SED’s conclusion that “as an aspirational goal, [a repeatable and consistent method to identify, assess, rank, and mitigate risk] is indeed something the utilities should strive for, but... achieving this goal will likely take much longer.” In order to provide a roadmap to transition to a more transparent and repeatable framework, the Commission should provide a timeline for the utilities as described in Section IV.A below.

C. Comments on ALARP and Intervenor Methodologies

ORA does not disagree with most SED assessments of the Intervenor and “As Low As Reasonably Possible” (ALARP) methodologies. Both methodologies enjoy many advantages over the current utility frameworks and could inform modifications to the utilities’ existing frameworks, if not entirely replace them.

However, ORA disagrees that the Intervenor Methodology would necessarily need to rely “heavily on SMEs to produce the LoF [Likelihood of Failure] and CoF [Consequence of Failure] estimates,” as claimed by the SED Report.¹⁸ The Intervenor Methodology can be crafted to rely heavily on SMEs if desired (for example, if the Commission decided to implement the Methodology immediately and fully). However, such reliance seems unnecessary at this juncture and is far from inherent in the Methodology itself. Many parties (including ORA¹⁹) have expressed concerns about over-reliance on SME expertise, and it appears very unlikely that any scenarios that would require heavy SME reliance will be adopted at this time.

As a bridging mechanism, or a method for prioritizing data collection, sensitivities around SME inputs could be used in the models. If a variable is highly sensitive to changes, then improved data is an important step. If the variable is insensitive to changes, then further improving data from SME judgement is less likely to change model outcomes.

D. ORA Comments on Additional SED Recommendations

The SED Report noted that all three utility models included shareholder financial risks or considerations.²⁰ ORA fully supports SED’s recommendation to remove shareholder financial

¹⁸ SED Report, p. 68.

¹⁹ ORA Comments on Joint Intervenor Whitepaper, p. 4.

²⁰ SED Report, p. 59, Table 7.

considerations from risk and impact assessment.²¹ As SED noted: “Prioritizing a portfolio of mitigation activities to benefit shareholders will almost certainly not result in an optimal portfolio from the ratepayers’ perspective.”²² Some assessment of ratepayer financial risks may serve as useful indicators of impacts, but these should be evaluated on a case-by-case basis.

For gas utilities, ORA recommends that SED examine the requirements of the TIMP²³ and DIMP,²⁴ respectively, under federal law, and report on those requirements and how they compare to the broader utility implementation of the SMAP process in the next SMAP proceeding.²⁵ TIMP and DIMP, which require utilities to address risks on their natural gas systems, include baseline assessments, prioritization, remediation, and continual evaluation.

1. RAMP Process²⁶

Given the newness of the RAMP process, and the fact that the RAMP for SoCalGas and SDG&E is likely to closely follow a decision in this proceeding, ORA agrees with SED’s alternative proposal to limit reported risks to Level 3. The Staff Report indicated that including risks with a score of 3 or higher would provide approximately 38 items, as compared to 28 using a score of 4 or higher.²⁷ ORA notes that Decision (D.)14-12-025 requires the utility to identify all risks²⁸ but also discusses that the purpose of the “RAMP report is to provide information about the utility’s assessment of its key safety risks and its proposed programs for mitigating those risks.”²⁹ ORA concurs with SED staff that this first RAMP should focus on key risks.

²¹ ORA has made this same observation in its testimony in both the 2015 PG&E Gas Transmission and Storage Application and the 2017 PG&E General Rate Case.

²² SED Report, pp. 93-94.

²³ 49 Code of Federal Regulations 192 Subpart O.

²⁴ 49 Code of Federal Regulations 192 Subpart P.

²⁵ SED Report, p. 102.

²⁶ SED Report, pp. 17-18.

²⁷ SED Report, p. 83.

²⁸ D.14-12-025 at pp. 39-40.

²⁹ D.14-12-025 at pp. 35-36.

IV. ADDITIONAL RECOMMENDATIONS

A. A Specific Timeline with Milestones Should be Developed

ORA supports SED's recommendation to give explicit directions and guidance to the utilities on common approaches desired in the next SMAP. While acknowledging that risk framework development is a complex and iterative process, ORA is concerned about the utilities' seemingly slow pace,³⁰ and agrees that "without formal orders from the Commission, it is unlikely that the utilities would adopt common risk management approaches at the pace and to the extent that the Commission and intervenors might desire."³¹

As noted in Section III.C above, a more quantitative framework need not rely heavily on SME data or judgement. However, as a transition and/or pilot measure, SME data should be subject to sensitivity testing to help develop areas where data is critical to make a reliable safety decision (for example, if a change in SME score does not significantly change an outcome, then initial data collection would probably best be focused on other areas that are more data-sensitive).

B. An SED-led Working Group Should Be Established

The SED Report states that a more common framework appears to be unrealistic for the immediate term.³² ORA agrees and continues to support a 5-year timeline for implementing a more quantitative methodology as reasonable and realistic. The establishment of an SED-led Working Group in the intervening period could serve to keep parties engaged and to build on the progress made in this proceeding.

As directed by the Commission, a Working Group could determine necessary next steps between a Decision in the current proceeding and the next SMAP proceeding, continue discussions on data gathering, continue discussions on use of SME data, and help move the utilities to a more uniform, common framework. As the Commission determines necessary, a Working Group could also focus on establishing a timeline that outlines appropriate milestones and timelines.

³⁰ See ORA Reply Comments on Joint Intervenor Whitepaper, p. 3.

³¹ SED Report, p. 99.

³² SED Report, pp. 99-100.

V. CONCLUSION

ORA appreciates the opportunity to provide Comments on the SED Report and looks forward to continuing to participate in the SMAP proceeding.

Respectfully submitted

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