

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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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 JOINT INTERVENOR WHITE PAPER**

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I. INTRODUCTION

Pursuant to Administrative Law Judge (ALJ) Kersten’s January 29, 2016 Email Ruling Entering Intervenor White Paper into the Record and Seeking Comments, the Office of Ratepayer Advocates (ORA) submits its comments on the Joint Intervenor Whitepaper¹ (White Paper) and the discussion held in the Safety Model Assessment Proceeding (SMAP) Workshop #5, held January 25, 2016. Lack of discussion herein does not imply agreement or disagreement with any party’s comments.

II. SUMMARY

The methodology proposed in the White Paper prioritizes safety, is transparent, and effectively distinguishes risk measurement from policy decisions. For these reasons, the Commission should work to transition risk assessment and mitigation to such a methodology. ORA offers the following recommendations to facilitate moving forward with a new risk assessment methodology, and addresses each recommendation, in turn, in the Discussion Section below:

¹ A draft of the White Paper and an accompanying presentation were presented by The Energy Producers and Users Coalition (EPUC), Indicated Shippers (IS), and The Utility Reform Network (TURN) (together “the Intervenor”) at the January 25, 2016 SMAP Workshop #5. The White Paper was subsequently finalized on January 28, 2016 and entered into the record of this proceeding by an ALJ Ruling of January 29, 2016. That ALJ Ruling included the White Paper as Attachment 1.

- ◆ More data is needed to make any methodology effective. Consequently, it is premature to fully implement any methodology at this time.
- ◆ The Commission should work with parties to establish a five year timeline for implementing a more quantitative methodology, such as that proposed in the White Paper. A Technical Working Group (perhaps as an outgrowth or continuation of the Metrics Working Group) should be established to address questions of data gathering and to identify appropriate milestones and timelines for implementation of a quantitative methodology.
- ◆ The Commission should continue to consider its role in the development of the risk assessment process envisioned in the General Rate Case (GRC) Order Instituting Rulemaking 13-11-006, and provide guidance on which safety requirements or metrics will be established unilaterally by the Commission as compared to which will be determined through collaboration with parties. The Commission should provide guidance on where and through what process these questions will be addressed.
- ◆ The Investor-Owned Utilities (IOUs) should be required to implement a common methodology. To the extent that differences must exist between utility methodologies, they should be fully and transparently evaluated for necessity and minimized wherever possible.

III. DISCUSSION

A. Advantages of the Proposed Intervenor Methodology

The White Paper's proposed methodology presents numerous advantages in quantifying risk and providing a framework to effectively reduce risk and prioritize safety.

ORA agrees with the Joint Intervenors and other parties that any adopted framework must quantifiably prioritize safety. The White Paper's proposed methodology clearly meets this requirement by providing a straightforward and transparent weighting criterion that permits measurement of safety as a desired value relative to other criteria, such as reliability, environmental issues, and cost.² Other considerations in developing a methodology that prioritizes safety - such as determining the relative importance of environmental or financial considerations or evaluating risks specific to a certain area or

² Joint intervenor White Paper, "Intervenor Perspective Regarding an Improved Methodology to Promote Safety and Reliability of Electric and natural Gas Service in California" (White Paper), pp. 1 and 15-19.

utility - can be considered largely independently and do not inherently conflict with the methodology itself.³

The White Paper's proposed methodology is transparent, easy to understand, and produces results that are easily audited/evaluated. As Drs. Lesser and Feinstein described in the January 25 workshop,⁴ all results are inherently traceable to Likelihood of Failure (LoF) and Consequence of Failure (CoF), with simple modifications for weighting. Transparency and auditability are crucial for an effective framework to achieve optimal safety results and prevent disputes regarding basic facts. In contrast, mitigation actions taken under a framework that is not mathematically-based or bases its scale on subjective terms like "few" or "severe" are harder to objectively evaluate for effectiveness in improving safety⁵ and cannot produce options that are measurable for cost effectiveness or comparable to each other in determining optimal results.

Another advantage of the proposed methodology is that it largely separates risk measurement from policy decisions. While a complete separation will never be entirely possible, the Commission should seek to distinguish the two as clearly as it can. The White Paper methodology does this by separating risk measurement and quantification (LoF) from policy decisions such as the relative importance of safety versus cost, or the relative importance of saving a life versus preventing X major injuries. Policy decisions will be challenging for the Commission and parties to address; however, it is crucial that such decisions be distinguished from the quantitative, factual aspects of the framework as much as possible.

³ By definition, any "attribute level" can be weighted between 0 and 100%. See also Joint Intervenor Presentation ("Utility Risk Management, Intervenor Perspective") at SMAP Workshop #5, January 25, 2016. Slide 11. This weighting is not necessarily a unique feature of the joint intervenor's proposal.

⁴ Joint intervenor Presentation ("Utility Risk Management, Joint Intervenor Perspective") at SMAP Workshop #5, January 25, 2016. Slides 10, 16, 18, and 26.

⁵ Joint intervenor Presentation ("Utility Risk Management, Joint Intervenor Perspective") at SMAP Workshop #5, January 25, 2016. Slide 17.

B. More Data is Needed Before Fully Implementing Any Methodology

The White Paper methodology presented by the Intervenors relies heavily on accurate, reliable, and complete data measuring and quantifying the likelihood of incidents and the effects that such incidents would or could have.⁶ Drs. Lesser and Feinstein emphasized the importance of equipment condition in particular, indicating that this information was especially important to determine “hazard rates.”⁷ The utilities’ comments at the January 25 workshop reflect that such data is not yet available in sufficient quantity and quality to make the proposed methodology useful. However, a lack of sufficient data is a challenge faced by all models (including the utilities’ current model⁸ and ALARP⁹), and is not a reason to dismiss any intervenor proposals.

Although the presenters indicated that Subject Matter Expert (SME) expertise could substitute for data in an interim transition period,¹⁰ it is unclear how reliable such expertise would be, particularly given the age of some assets, the safety and liability implications of such substitution on a large scale, and what data can and cannot be replaced (even if only on a temporary basis) by subject matter expertise.¹¹ Using subject matter expertise in place of data may be appropriate or necessary in some cases, but the issue warrants further consideration and, at this time, it appears premature to establish any model that would rely heavily on subject matter expertise when there is a need for solid quantitative data to inform sound decision-making.

⁶ White Paper, p. 36.

⁷ Joint intervenor Presentation (“Utility Risk Management, Intervenor Perspective) at SMAP Workshop #5, January 25, 2016. Slides 6-8.

⁸ SMAP Workshop #1 (August 3, 2015) Final Report, p. 5.

⁹ Safety and Enforcement Division Staff White Paper on As Low As Reasonably Practicable (ALARP) Risk-informed Decision Framework Applied to Public Utility Safety, pp. 42-43.

¹⁰ White Paper, p. 36.

¹¹ See also ASME B31.8 S 2004, p. 12: “(b) An operator shall utilize one or more of the following risk assessment approaches consistent with the objectives of the integrity management program. These approaches are listed in a hierarchy of increasing complexity, sophistication, and data requirements. These risk assessment approaches are subject matter experts, relative assessments, scenario assessments, and probabilistic assessments. The following paragraphs describe risk assessment methods for the four listed approaches.” The four approaches are SME, Relative Assessment, Scenario-Based, and Probabilistic, in that order.

Although LoF and CoF data is crucial for implementing the Joint Intervenor’s methodology, accurate data will be needed for any safety methodology and framework to be effective, including that currently used by the utilities and other frameworks presented in the SMAP.

C. Transitioning to a Quantitative Model

An effective transition to a more quantitative model should be based on a timeline established by the Commission with input from parties. Appropriate milestones to guide and measure such a timeline should continue to be developed in this and other proceedings. The intervenor methodology, while sound, lacks sufficient input data to be effectively used in GRC proceedings at this point in time. This is also true of the currently-used methodologies.^{12,13} However, a full or nearly-full transition to a quantitative methodology by the third SMAP cycle (within approximately 5 years) appears achievable.

The largest hurdle to a full transition to a quantitative methodology is acquiring the accurate, reliable, and complete data to use as inputs to a framework, so that the framework and any optimization will produce reliable and accurate results, as discussed in Section III.B above. To facilitate the transition, the Commission should direct the IOUs to begin gathering the necessary data and have this process completed within a reasonable timeframe (established as part of the timeline).

To continue developing data and models ahead of the next SMAP, a Technical Working Group should be established. The Working Group could also address questions related to the timeline/transition, including:

- ◆ What data is necessary to successfully implement a quantitative framework?

¹² The utilities indicated in SMAP Workshop #1 that elements or parts of their frameworks may be used in other proceedings (including GRCs), but the frameworks as a whole “may not be final” and was a “bridge half-built”. See “Final Staff Workshop #1 Report on Utility Risk Assessment Models and Staff Evaluation Methodology,” pp. 14-15.

¹³ For example, “SCE and Sempra do not currently calculate risk scores for the mitigation programs and projects.” See “Final Staff Workshop #2 Report on Utility Risk Assessment Models,” p. 4.

- ◆ How long will it take to gather the necessary data, and how does this affect the timeline?
- ◆ In which cases will gathering the necessary data take longer? How should this be addressed?
- ◆ Where (if anywhere) is gathering the necessary data impossible or ineffective, and how will utilities compensate for this?
- ◆ What level of data “completeness” is needed before beginning to use the model?
- ◆ When, and to what extent, can SME expertise be substituted for data, both within the transition period, and more generally?

To the extent that the questions above overlap with the duties of the Metrics Working Group currently being established in the SMAP proceeding, the two could eventually be merged or the Metrics Working Group could be transitioned to the more general Technical Working Group as appropriate.

D. The Commission’s Role in Model Development

The establishment of a timeline will give the Commission and parties a more concrete roadmap for the transition to a quantitative methodology. However, there are still numerous questions that the Commission should consider regarding its own role in the SMAP process. For example, what framework values will the Commission set, and at what level? What determinations (such as data sources or models) should be evaluated in every new SMAP proceeding or definitively set now, subject to revision?

Although these questions are especially relevant to the Intervenor’s proposed methodology¹⁴ (i.e. CoF weighting, relative importance of attributes), the general questions apply to any methodology, including ALARP and the framework currently used by the IOUs. At a minimum, the Commission should clarify where and through what process these questions will be addressed.

E. The Utilities Should Use a Common Methodology

The IOUs should be required to use a common safety risk assessment methodology. A common methodology will make safety, cost, reliability, and environmental comparisons across utilities easier, will streamline Commission

¹⁴ Joint intervenor Presentation (“Utility Risk Management, Intervenor Perspective) at SMAP Workshop #5, January 25, 2016. Slide 19.

proceedings, will provide greater clarity 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 together.¹⁵

To the extent that minor methodology differences between utilities cannot be eliminated, the need for these differences should be fully and transparently evaluated. Whenever possible, differences that make comparison more difficult should be removed or reduced.

The IOUs should work with the Commission and intervenors to provide a path toward a common methodology. Such a path would include a timeline and concrete steps, and would likely be tied to the quantitative-transition timeline discussed in Section III.C above.

IV. CONCLUSION

ORA appreciates the opportunity to provide comments on the Joint Intervenor's White Paper and the SMAP Workshop and looks forward to continuing to participate in the SMAP proceeding.

Respectfully submitted

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¹⁵ White Paper, p. 2.