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April 8, 2024 VIA ELECTRONIC FILING

Suzie Rose
Program Manager, Electric Safety Policy Division
Office of Energy Infrastructure Safety

RE: Mussey Grade Road Alliance Comments on the 2026-2028 Guidelines

Dear Ms. Rose and Staff,

The Mussey Grade Road Alliance (MGRA or Alliance) files these comments pursuant to the March 4 Solicitation for Public Input for Next Iteration of WMP Guidelines[1] provided by the Office of Energy Infrastructure Safety (OEIS or Energy Safety) which authorizes public comment on a number of listed technical guidelines.

The Alliance is pleased that Energy Safety has put considerable effort into incorporating the full spectrum of utility wildfire risk and mitigation and has expanded its scope to take on additional topics required by the ever changing landscape of utility-caused wildfire. By and large, the Alliance is pleased with the outcome. We provide a few comments that we think could improve the process and hope that you will consider them.

Respectfully submitted this 8th day of April, 2024,

[1] Energy Safety Docket : #WMP-Guidelines; Re: Soliciting Public Input for Next Iteration of WMP Guidelines; March 4, 2024;
TN13747_20240304T163416_20262028_WMP_Guidelines_Comment_Solicitation.pdf

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On behalf of the Mussey Grade Road Alliance.

MUSSEY GRADE ROAD ALLIANCE COMMENTS ON THE 2026-2028 GUIDELINES

The Mussey Grade Road Alliances' (MGRA or Alliance) Wildfire Mitigation Plan comments are authored by MGRA's expert witness Joseph W. Mitchell, Ph.D.[2]

1. SUMMARY OF PROPOSED CHANGES

- In addition to future projected risk reduction, require IOUs to provide estimated to-date risk reduction from the time that their risk reduction programs began and were tracked. These descriptions should include 1) risk models used during these periods to estimate overall risk displayed 2) main risk drivers and mitigations for various stages of the risk reduction journey
- The 2026-2028 WMPs should ask for risk in terms of Cost/Benefit Ratios, following directives from the CPUC.
- Likewise, the 2026-2028 WMPs should use the ICE program for estimating PSPS risk, and implementation of PSPS risk should be compared across utilities.
- Energy Safety should add a section that allows utilities to describe how and if they account for the correlation between outage rates due to extreme wind and high consequence conditions that have led to most of the catastrophic utility wildfires.
- The OEIS should de-emphasize the Electrical Corporation Maturity Model and survey because it is of limited value and takes up staff time that could be better used elsewhere.
- Energy Safety should continue to credit intervenors for benefit they provide to the review process and should be aware of language that can be potentially detrimental to intervenor compensation.

[2] M-bar Technologies and Consulting, LLC; http://www.mbartek.com; Email: jwmitchell@mbartek.com. Dr. Mitchell is also a board member of the Mussey Grade Road Alliance.

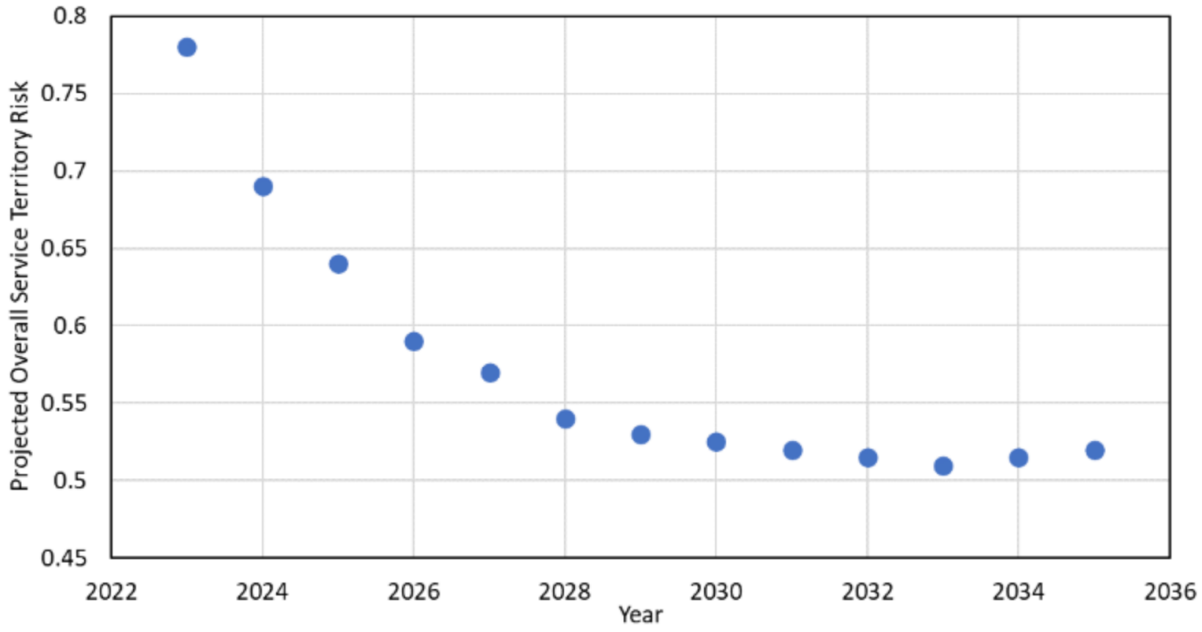
2. CHANGES TO 2023-2025 WILDFIRE MITIGATION PLAN TECHNICAL GUIDELINES; DECEMBER 6, 2022

2.1. Section 7.2.2.1 Projected Overall Risk Reduction

MGRA agrees with Energy Safety's proposal that utilities plot overall utility risk in their service territories as a function of time, assuming the electrical corporation meets the planned timeline for implementing the mitigations for a period covering at least 10 years.

This is displayed in Figure 7-1:

Figure 7-1. Example of Projected Overall Service Territory Risk



2.2. Proposed Change and Justification

While it is important to look forward and predict future risk reduction, it is likewise important to look backward and understand what has already been achieved and why. It is important to note that the vast majority of catastrophic utility wildfires occurred in years prior to 2019, when the first Wildfire Mitigation Plans went into effect and utility wildfire mitigation and spending exponentially increased. So as Energy Safety looks to the future and sees the significant efforts and expenditures involved in removing remaining residual risk, it should also see what risk has already been mitigated with efforts to date.

Therefore, in addition to future risk buy-down curves (Territory Risk vs. Year), utilities should also include *historical* risk starting at a baseline year. It would be tempting to give them all the same baseline year but this would be unfair to SDG&E, which started a major wildfire mitigation program in 2008 and has been free of catastrophic wildfires since. Examples of such plots are available in recent filings. For instance in SDG&E's 2025 WMP Update, SDG&E shows the effect of its hardening and operational mitigation efforts from 2007-2003:

Figure 4: Effectiveness of Hardening Strategies to Wildfire Risk (Years 2007-2023)

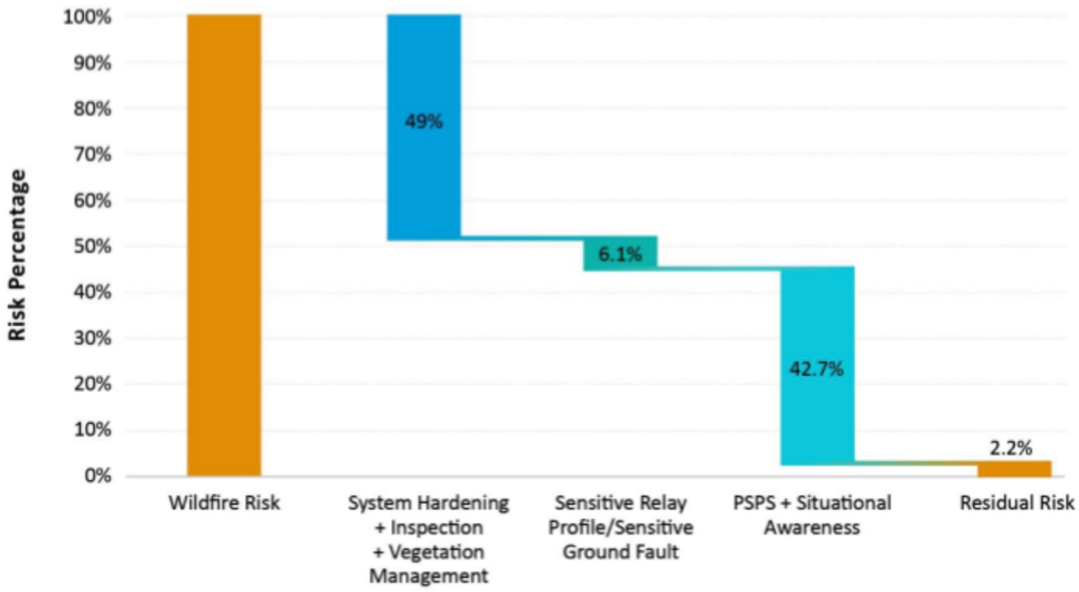


Figure 1 - SDG&E's estimated risk reduction effectiveness using all of its hardening and operational mitigation tools from 2007 to 2023.

SDG&E claims that it has been able to eliminate half of its risk through System Hardening, Inspection and Vegetation Management programs, 6% by using its technology to apply more conservative fault standards, and 43% by PSPS. *This leaves only 2.2% residual wildfire risk.*

Clearly, the primary risk that SDG&E needs to address is PSPS risk (which it calculates to be significantly lower than wildfire risk, more to be said about this later), and this can be done

through undergrounding OR by raising the threshold on hardened circuits once they have been field tested (CC+AT).[3]

Likewise, in the SCE GRC, SCE described "High Wind Area" as a component of its Severe Risk Areas. We show that these areas of high wind are in fact concentrated in a small number of circuits. This again shows that changes in PSPS threshold for hardened circuits have the potential to substantially reduce PSPS risk.

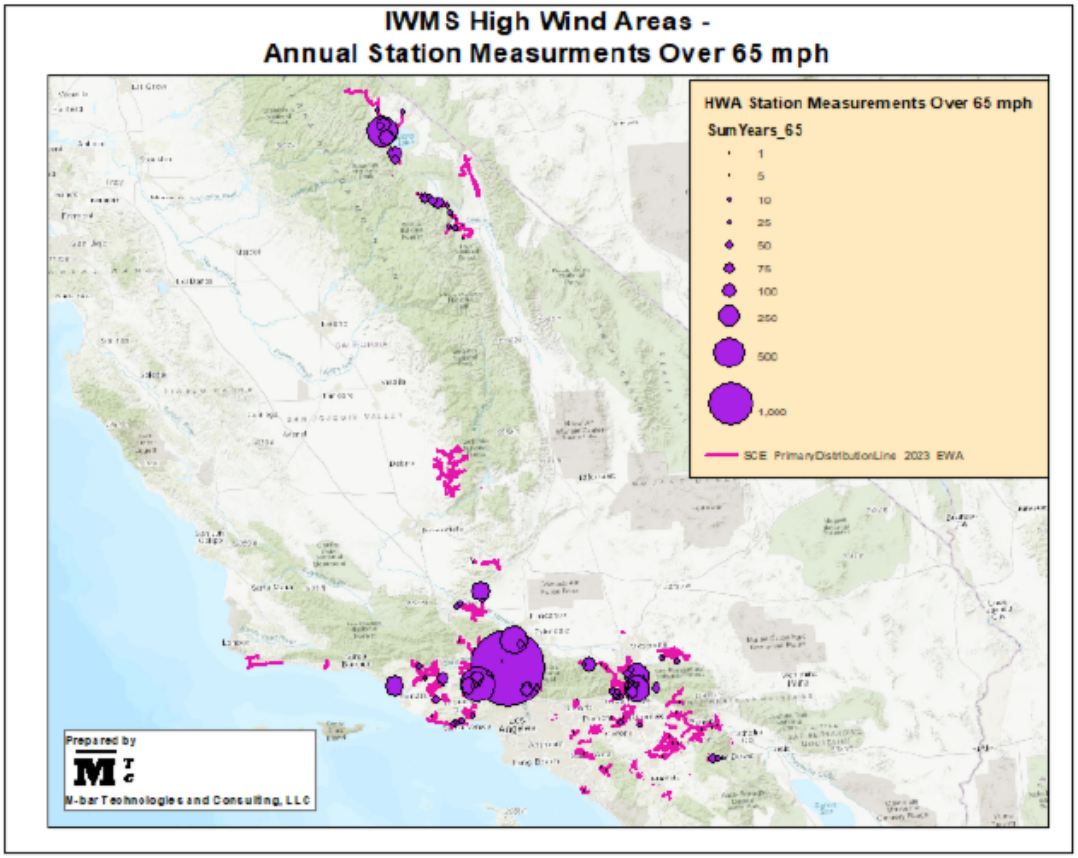


Figure 2 - IWMS "High Wind Location" circuits and weather stations that have a mean number of wind gust measurements above 65 mph greater than 1.0. Circles are proportional to the mean number of measurements per year measured by the station. Circuits designated as "high wind location" are shown by magenta lines.[4]

[3] MUSSEY GRADE ROAD ALLIANCE OPENING BRIEF ON SAN DIEGO GAS AND ELECTRIC COMPANY'S 2024 GENERAL RATE CASE; pp. 47-50.
https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M519/K776/519776207.PDF

[4] A.23-05-010; DIRECT TESTIMONY OF THE MUSSEY GRADE ROAD ALLIANCE SOUTHERN CALIFORNIA EDISON COMPANY 2025 GENERAL RATE CASE; p. 51.
https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2305010/7075/526147058.pdf

Likewise, SCE in its GRC case has demonstrated a substantial reduction of risk since 2018 due to the widespread deployment of covered conductor and other technologies.

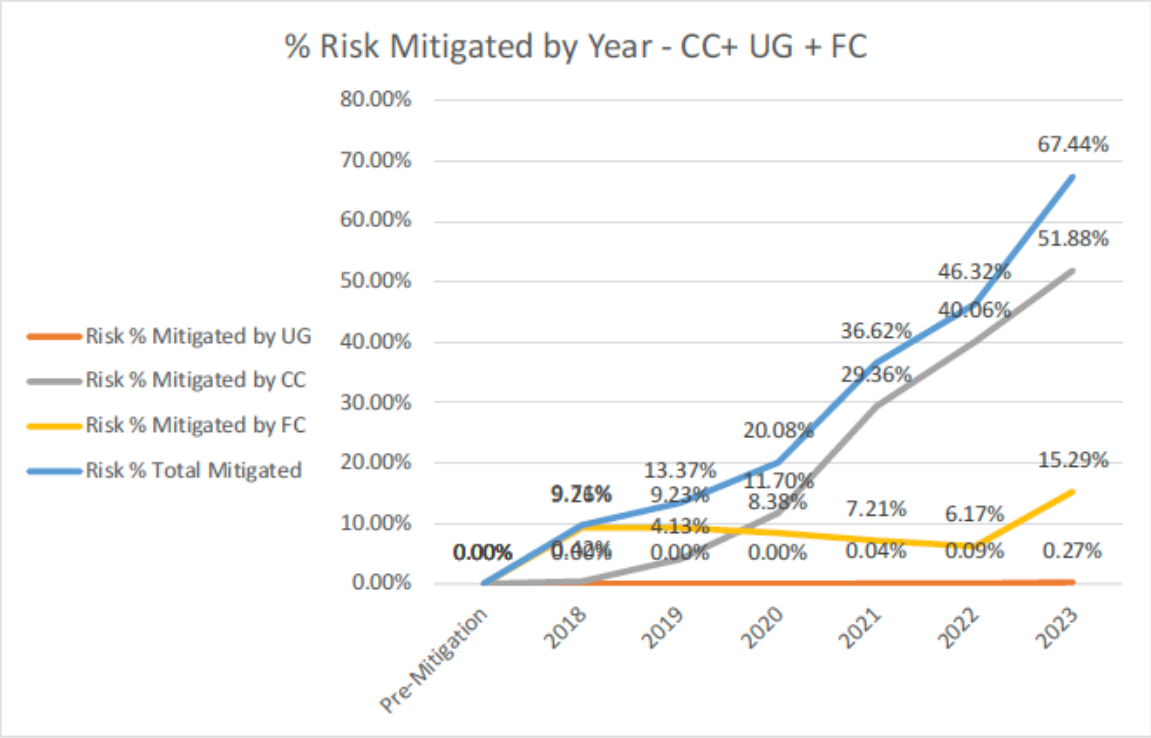


Figure 3- SCE MARS estimated risk reductions from 2017 to 2023 broken down into covered conductor, undergrounding, fast closing, and total.[5]

From its own estimate, SCE claims to have mitigated 67% of its wildfire risk since 2018. It is critical to point out that 1) these estimates do NOT include PSPS risk reduction, which SDG&E's plot shows to be a substantial reduction and 2) as has been shown in previous MGRA filings, and will be shown in detail in MGRA's 2025 WMP Update comments, SCE is underestimating the effectiveness of covered conductor as a risk reduction mitigation by a factor of two.

At least according to their own metrics, SCE and SDG&E at have made one to two order-of-magnitude improvements in reducing their wildfire risk since their initial wildfire crises. Nevertheless, future projects targeting residual risk are accelerating and intensifying, particularly undergrounding, which is having catastrophic rate impacts on the poorest and most vulnerable.

[5] Id.; p. 57.

While it is the duty of the Commission to set rates, OEIS must not be unaware that the impacts of extreme electricity rates on the poorest and most vulnerable are extreme and can affect health, safety, food security, homelessness, and other factors. Everyone working in this field should at least hear their voices and the suffering underlying it. The GRC Public Participation Hearings offer an opportunity to do that. Here are transcripts from SCE's most recent PPHs:

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M527/K056/527056804.PDF
https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M528/K422/528422161.PDF

2.2.1. Change to Guidelines

Utilities should be required to show the reduction in their overall risk since at least 2018 (earlier if they have tracked data for longer). These descriptions should include 1) risk models used during these periods to estimate overall risk displayed 2) main risk drivers and mitigations for various stages of the risk reduction journey

2.3. Adapting to New CPUC Requirements

Under the conditions that the CPUC is changing requirements for rate cases and safety evaluations, the OEIS should incorporate these into the new guidelines even if they are not yet operational in 2025 WMP Updates.

2.3.1. Cost Benefit Ratios

Utility risk analyses and mitigation choices have been mandated to move away from Risk Spend Efficiency (RSE) to Cost Benefit Ratio (CBR) framework, as per decision D.22-12-027. This affects all wildfire mitigation activities and system hardening alternatives. This issue has been flagged by TURN.

2.3.2. ICE model for PSPS

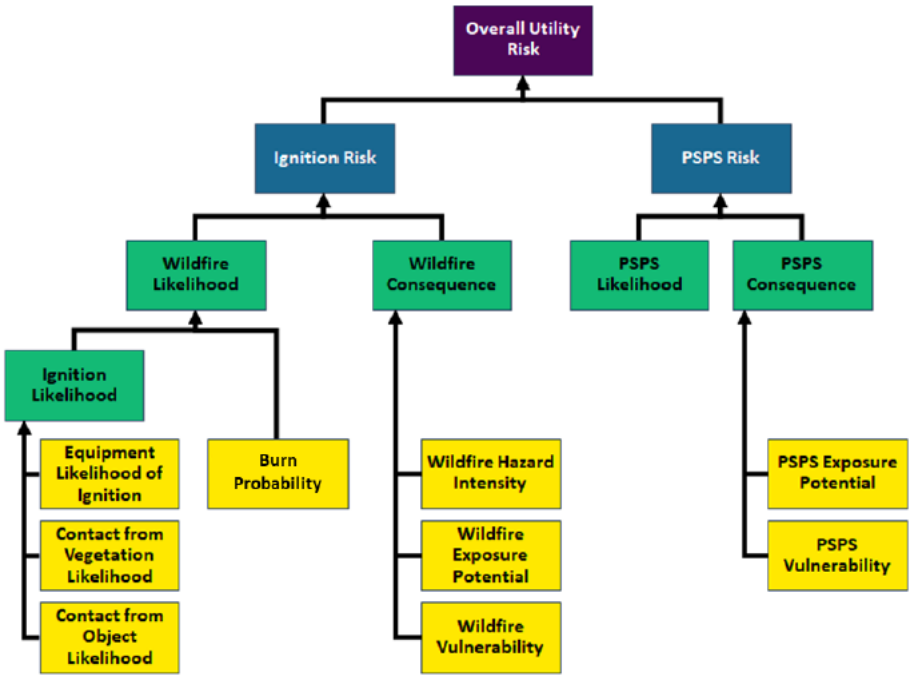
D.22-12-027 also directs all utilities to unify on the ICE model to determine the consequence of PSPS. Currently, the calculations of PSPS harm vary widely from IOU to IOU and

in general place PSPS consequence at a much lower level than wildfire harm. Initial work by PG&E indicates PSPS consequence might become a larger component of PSPS risk. In any case, the future WMPs should ascertain how the IOUs are using the ICE model, what inputs they use, and how the outputs affect the results.

2.4. Compensating for Correlations between Probability and Consequence During Extreme Fire Weather in Risk Models

MGRA has been highlighting the importance of causal relationships between extreme fire weather, the probability of outage, the probability that an outage will lead to an ignition, the probability that the ignition will become a wildfire, and the probability that the wildfire will become catastrophic for over 10 years.[6] It is a weakness in the MAVF model and Machine Learning models that this relationship is ignored, leading risk models to underweight risk situations potentially leading to catastrophic wildfire. This is illustrated in Figure 6.1 of the Technical:

Figure 6-1. Composition of Overall Utility Risk



[6] Mitchell, J.W., 2013. Power line failures and catastrophic wildfires under extreme weather conditions. Engineering Failure Analysis, Special issue on ICEFA V- Part 1 35, 726–735. https://doi.org/10.1016/j.engfailanal.2013.07.006

An example of MGRA analysis on this topic can be found in its 2022 WMP Comments.[7] The most noteworthy and important example is that all catastrophic utility wildfires in California since 2007, with the exception of the Dixie fire, occurred during high wind conditions of elevated fire risk. These high wind conditions are relatively rare, so having this many catastrophic wildfires occurring during these periods as the result of a statistical anomaly is nearly impossible. Looking at other recent power line fires outside of California: Boulder, Maui, and in the Texas panhandle, also shows that winds were an outage/ignition driver in all cases.

Energy Safety, while it might consider revising its Composition diagram, could also ask several detailed questions about how utility risk models accommodate for correlations between outages (outage drivers) and high wildfire growth potential.

3. ELECTRICAL CORPORATION MATURITY MODEL

Since its inception, MGRA has never had great faith in the Electrical Corporation Maturity Model because it allows the utilities to evaluate themselves. Because language can be ill-defined, different utilities may interpret model questions in different ways. Another problem is that there are many questions that were clearly not developed by subject matter experts and therefor fail to probe or classify a utility maturity aspect. The initial draft of the maturity model was issued without time for review, and then this was replaced with a much more extensive model. However, if one of the goals of Energy Safety is to track utility maturity over time, then the initial clock is reset every time the model and its questions are changed.

In general, MGRA believes that Energy Safety should rely less on the Maturity Model and more on the rest of the WMP, possibly putting the effort that goes into analyzing the Maturity model into comparing utility approaches. In fact, MGRA noted that Energy Safety Analysis of the 2023-2025 WMPs was curtailed in comparison to its 2022 WMP review:

"*In 2022, the SDG&E Wildfire Mitigation Plan Update was 699 pages, not counting supplemental files and data requests. The SCE Wildfire Mitigation Plan update in 2022 was 799*

[7] 2022-WMPs: MUSSEY GRADE ROAD ALLIANCE COMMENTS ON 2022 WILDFIRE MITIGATION PLANS OF PG&E, SCE, AND SDG&E; pp. 18-24

pages, not counting supplemental files and data requests. The 2023-2025 Wildfire Mitigation Plan for SDG&E was 1071 pages in length, and that of SCE was 938 pages. Hence the Plans themselves, not including the supplemental documents, files, GIS files, and data request responses increased from 1498 pages for these two utilities in 2022 to 2009 pages in 2023, a 34% increase. Energy Safety's Draft Decision for the SDG&E in 2022 was 211 pages, whereas its 2023- 2025 Draft Decision is 122 pages. For SCE, the 2022 Draft Decision was 212 pages whereas the SCE Draft Decision is 124 pages. This represents a drop from 246 pages to 156 pages, a 37% decrease. Taken together, this shows a reduction in ratio of the number of pages of Draft Decision to the number of pages in the WMPs of over 50%. While a "pages to pages" comparison does not tell the full story, the "coverage" of the utility draft decisions seems to be even more restricted due to the fact that in both cases, some coverage is due to the irreducible coverage of the Maturity Model comparisons, which take up equal space.

Taken together, these facts lead to the conclusion that the Energy Safety review appears to be more briefer [sic] than in previous years. This might perhaps be viewed optimistically that improvement and completeness in the utility models has necessitated less intervention on the part of Energy Safety. However, having performed a detailed review of the utility Plans MGRA has noted numerous remaining deficiencies and additional need for improvement, it is MGRA's opinion that the reduction in scope of the 2023-2025 review has reduced the quality of the Energy Safety review compared to Energy Safety's previous excellent efforts."

It would be the case that Energy Safety will have more time to analyze the WMPs themselves and intervenor comments if it gives less effort to analyzing the Electrical Corporation Maturity Model.

4. INTERVENOR CREDIT

MGRA is grateful to Energy Safety Staff for providing adequate citation in its review to enable intervenors to obtain compensation, since intervenor showings must make it clear that the intervenor contributed to the final work product.

MGRA would like to re-iterate and remind staff that the use of the phrase: "*Energy Safety found the following stakeholder comments to concur with topics already included in Energy Safety's*

findings" should only be used if Energy Safety found that the intervenor's findings were trivial, obvious, or self-evident, and that the intervenor added nothing to the argument that Energy Safety adopted. This is how the intervenor compensation committee interprets that phrase, and it generally does not lead to compensation being offered on that particular topic.

We would also urge the staff, who may be time pressed, to make use of intervenor input as they can to supplement the analysis of the utility WMPs.

5. CONCLUSION

MGRA is pleased to contribute to the next generation of the Wildfire Mitigation Plans and respectfully request Energy Safety to consider its comments.

Respectfully submitted this 8th day of April, 2024,

By: __/S/____ ***Joseph W. Mitchell, Ph.D.***_____

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