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September 29, 2023

VIA ELECTRONIC FILING

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RE: MUSSEY GRADE ROAD ALLIANCE REPLY TO COMMENTS ON OFFICE OF ENERGY SAFETY INFRASTRUCTURE DRAFT DECISIONS ON SOUTHERN CALIFORNIA EDISON COMPANY'S 2023-2025 WILDFIRE MITIGATION PLAN AND SAN DIEGO GAS AND ELECTRIC COMPANY'S 2023-2025 WILDFIRE MITIGATION PLAN

The Mussey Grade Road Alliance (MGRA or Alliance) files these comments pursuant to the Cover letter to the Stakeholders for San Diego Gas & Electric Company's (SDG&E) 2023-2025 Wildfire Mitigation Plan¹ (WMP) and to the Stakeholders for Southern California Edison Company's (SCE) 2023-2025 Wildfire Mitigation Plan² which authorizes stakeholders to file reply comments to stakeholder comments on SCE's and SDG&E's 2023-2025 Wildfire Mitigation Plan Draft Decisions (DDs) by September 29th, 2023. The Alliance filed its opening comments on DDs on September 19, 2023,³ filed comments on the 2022 Wildfire Mitigation Plans of all major IOUs April 11, 2022,⁴ and filed Reply Comments on WMPs April 18, 2022.⁵

¹ 2023-2025-WMPs; OFFICE OF ENERGY INFRASTRUCTURE SAFETY; DRAFT DECISION ON 2023-2025 WILDFIRE MITIGATION PLAN; SAN DIEGO GAS & ELECTRIC COMPANY; August 30, 2023. (SDG&E Draft Decision or DD)

² 2023-2025-WMPs; OFFICE OF ENERGY INFRASTRUCTURE SAFETY; DRAFT DECISION ON 2023-2025 WILDFIRE MITIGATION PLAN SOUTHERN CALIFORNIA EDISON COMPANY; August 30, 2023. (SCE Draft Decision or DD)

³ 2023-2025-WMPs; MUSSEY GRADE ROAD ALLIANCE COMMENTS ON OFFICE OF ENERGY SAFETY INFRASTRUCTURE DRAFT DECISIONS ON SOUTHERN CALIFORNIA EDISON COMPANY'S 2023-2025 WILDFIRE MITIGATION PLAN AND SAN DIEGO GAS AND ELECTRIC COMPANY'S 2023-2025 WILDFIRE MITIGATION PLAN; September 19, 2023. (MGRA DD Comments)

⁴ 2023-2025-WMPs; MUSSEY GRADE ROAD ALLIANCE COMMENTS ON 2023-2025 WILDFIRE MITIGATION PLANS OF PG&E, SCE, AND SDG&E; May 26, 2023. (MGRA Comments)

⁵ 2023-2025-WMPs; MUSSEY GRADE ROAD ALLIANCE REPLY COMMENTS ON 2023-2025 WILDFIRE MITIGATION PLANS OF PG&E, SCE, AND SDG&E; June 6, 2023. (MGRA Reply)

The Alliance reply comments are authored by the Alliance expert, Joseph W. Mitchell,
Ph.D.

Respectfully submitted this 29th day of September, 2022,

By: /S/ **Diane Conklin**_____

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**REPLY COMMENTS TO STAKEHOLDER COMMENTS ON THE OFFICE OF ENERGY
SAFETY INFRASTRUCTURE DRAFT DECISIONS ON SOUTHERN CALIFORNIA
EDISON COMPANY’S AND SAN DIEGO GAS AND ELECTRIC COMPANY’S 2023-
2025 WMP WILDFIRE MITIGATION PLANS ON BEHALF OF THE
MUSSEY GRADE ROAD ALLIANCE**

The Mussey Grade Road Alliances’ (MGRA or Alliance) comments are authored by MGRA’s expert witness Joseph W. Mitchell, Ph.D.⁶

1. INTRODUCTION

Comments on the Draft Decisions were received from SDG&E⁷ and SCE⁸ as well as Cal Advocates,⁹ TURN,¹⁰ and GPI.¹¹ Stakeholders raised many salient points and these reply comments will be restricted to points of strong agreement and take issue with points of strong disagreement.

2. UTILITY COMMENTS

2.1. SDG&E Comments

2.1.1. SDG&E’s concern regarding changes to its risk model are valid

⁶ 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.

⁷ 2023-2025-WMPs; SDG&E Comments to Energy Safety Draft Decision Approving SDG&E’s 2023-2025 WMP (Draft Approval); September 19, 2023. (SDG&E Comments)

⁸ 2023-2025-WMPs; Comments on SCE’s 2023-2025 Wildfire Mitigation Plan Draft Decision; September 19, 2023. (SCE Comments)

⁹ 2023-2025-WMPs; Public Advocates Office’s Opening Comments on the Draft Decision Approving San Diego Gas & Electric Company’s 2023-2025 Wildfire Mitigation Plan; September 19, 2023. (Cal Advocates SDG&E Comments)

Public Advocates Office’s Opening Comments on the Draft Decision Approving Southern California Edison Company’s 2023-2025 Wildfire Mitigation Plan; September 19, 2023. (Cal Advocates SCE Comments)

¹⁰ 2023-2025-WMPs; OPENING COMMENTS OF THE UTILITY REFORM NETWORK ON THE DRAFT DECISION ON SOUTHERN CALIFORNIA EDISON COMPANY’S 2023-2025 WILDFIRE MITIGATION PLAN; September 19, 2023. (TURN SCE Comments)

2023-2025-WMPs; OPENING COMMENTS OF THE UTILITY REFORM NETWORK ON THE DRAFT DECISION ON SOUTHERN CALIFORNIA EDISON COMPANY’S 2023-2025 WILDFIRE MITIGATION PLAN; September 19, 2023. (TURN SDG&E Comments)

¹¹ 2023-2025-WMPs; COMMENTS OF THE GREEN POWER INSTITUTE ON THE DRAFT DECISIONS ON THE 2023-2025 WILDFIRE MITIGATION PLANS OF SCE AND SDG&E; September 19, 2023. (GPI Comments)

SDG&E requests that “*Energy Safety modify the requirement that SDG&E transition from maximum consequence values to either probability distributions or averages based solely on the generally conclusory statements in the Draft Decision. A shift of this magnitude should not be adopted without a comprehensive understanding of the potential implications and limitations associated with this shift.*”¹²

MGRA raised a similar point regarding Energy Safety’s proposed requirement that consequence values be switched to averages or probability distributions, discussing the technical issues involved in wildfire risk modeling of extreme events in pages 8-10 of its Comments as well as in the supplemental whitepaper from the S-MAP II proceeding included as an appendix to its filing. MGRA has raised errors and biases in the utility risk models for a number of years. This is important because these models are used for planning of mitigation programs, particularly hardening and undergrounding programs.

2.1.2. SDG&E understates short-term advantages of its Advanced Protection Program

SDG&E states that in the short term, it will use PSPS as its primary tool to reduce wildfire risk: “*SDG&E enables these settings when the wildfire potential is high enough to warrant mitigation measures in the short term. Moreover, SDG&E uses PSPS as a tool of last resort to reduce the likelihood of an ignition during the highest risk conditions. The longer-term goal of SDG&E’s undergrounding initiative is to reduce both wildfire risk and the reliability impacts of both planned and unplanned outages. Undergrounding remains the optimal means of reducing long-term wildfire and PSPS risk.*”

SDG&E fails to mention that many components of its Advanced Protection Program are currently being deployed, and can provide substantial and immediate reduction in risk. However SDG&E specifically excludes segments it considers candidates for future undergrounding, regardless of when that future undergrounding is planned,¹³ thus leaving residents exposed to higher than necessary risk.

¹² SDG&E Comments; p. 2.

¹³ MGRA Comments; p. 14.

2.1.3. SDG&E's risk model defaults to undergrounding

SDG&E takes issue with the claim that its risk model defaults to undergrounding, claiming *“Rather than a ‘default,’ the RSE threshold for undergrounding is tied to the achievement of the portfolio risk reduction target.”*¹⁴

Despite its claim, SDG&E does not directly compare mitigations on a circuit-by-circuit level if a circuit meets its undergrounding criteria. This is effectively "defaulting" to that solution. The bias inherent in SDG&E's decision-tree based model are described in more detail in the MGRA WMP comments.¹⁵

2.1.4. SDG&E has already been warned to look at combinations of mitigations

SDG&E argues for more time to work on ACI SDG&E-23-06, stating that: *“SDG&E continues to work on development of these capabilities, but due to the complexity of this analysis, it will take time. The effectiveness ratings for combinations of mitigation remains under consideration and is informed by ongoing efforts, including the risk modeling working groups.”*¹⁶

It is important to note that action by SDG&E in this area is already overdue. In SPD-1, ACI SDGE-22-13 stated that:

*“All electrical corporations (not including independent transmission operators) must collaborate to evaluate the effectiveness of new technologies that support grid hardening and situational awareness such as REFCL and DFA/EDF, particularly in combination with other initiatives. Utilities Final Decision on San Diego Gas & Electric Company's WMP 2022 Update must also share practices and evaluate implementation strategies for these new technologies.”*¹⁷

SDG&E should not be rewarded for ignoring its previous obligations by being granted additional time. In fact, OEIS should require SDG&E to provide updates on progress every three months with specific milestones set for each filing. It is important to note that combinations of

¹⁴ SDG&E Comments; p. 3.

¹⁵ MGRA WMP Comments; pp. 82-83.

¹⁶ SDG&E Comments; p. 4.

¹⁷ SPD-1; p. 51.

advanced technologies and covered conductor are likely to provide a compelling alternative to undergrounding in many cases and that by delaying this evaluation SDG&E strengthens its ability to argue that undergrounding is the only near-complete wildfire risk mitigation.

2.2. SCE Comments

2.2.1. Restrictions on maximum consequence values

Energy Safety's DD correctly attempts to correct SCE's use of maximum consequence values for its IWMS model.¹⁸ As MGRA noted in its Comments, IWMS is not formally a risk model at all, as it has no probability component.¹⁹ SCE's MARS risk model, while flawed, contains a pixel by pixel assessment of risk, which is comprised probability and consequence obtained from a portfolio of simulations based on worst weather days. Hence, MARS can be corrected if necessary to use probability-weighted consequence values. IWMS cannot, and the components contained in IWMS, while in themselves may be quite valuable (ingress/egress, high wind) should be integrated into MARS.

2.2.2. Risk tolerance and utility hardening in severe risk areas

In regard to ACI SCE-23-09, SCE states that:

*“In explaining its risk evaluation approach in its WMP, SCE states that ‘[i]n Severe Risk Areas, the threat to lives and property is elevated to such an extent that **SCE has determined** that for public safety reasons it is prudent to not just significantly reduce ignition risk expeditiously but minimize it in the long term to the extent practicable.’ In other words, the potential consequences and public harm from wildfires in these locations is so extreme that it is prudent to begin from the premise that undergrounding is a preferred solution due its ability to reliably and **effectively eliminate wildfire risk.**”*

The topic of risk tolerance has been and will be addressed in the “S-MAP” proceedings (currently R.20-07-013) underway at the CPUC. How much risk is acceptable, and what level risk should be reduced to by mitigation measures are valid topics for discussion in an open public forum

¹⁸ SCE Comments; p.

¹⁹ MGRA Comments; pp. 15-16.

like the CPUC. SCE's approach shows the danger of leaving this decision in the hands of a utility. With introduction of its IWMS approach, particularly its introduction of a "high consequence criteria", SCE has:

- assigned itself the role of sole determinant of what is a prudent level of risk,
- determined what the risk level must be reduced to in order to be acceptable,
- defined its own criteria for what constitutes 'extreme' risk,
- ignored the standard definition of risk as product of probability and consequence,
- ignored the effect of increased rates on ratepayers,
- and determined the solution (undergrounding) without evaluation of alternatives.

It must also be remembered that SCE's own interest is not decoupled from this determination. Utilities make 10% return on capital projects, and therefore have a financial incentive to expand undergrounding, which is more expensive than covered conductor.

ACI SCE-23-09 is therefore correct in requiring SCE to further justify its hardening approach.

3. INTERVENOR COMMENTS

3.1. TURN

3.1.1. Conditions of approval

TURN correctly points out that despite the Draft Decisions' highlighting of utility shortcomings and assignment of ACIs, the Draft Decisions do not require the utilities make changes to plans until the 2025 Update:

"Energy Safety's Draft Decision would approve SCE's 2023-2025 WMP, but not without pointing out significant problems with SCE's approach to wildfire mitigation. Among those problems are SCE's practice of 'default[ing] to undergrounding' and failing to 'perform adequate analysis of alternative mitigation plans.' Despite Energy Safety's finding that SCE's decision-making process unduly favors undergrounding at the expense of the faster-to-deploy and less costly

overhead hardening alternative, the Draft Decision would not require SCE to make any changes to its grid hardening plans until its 2025 Update.”²⁰

Utility undergrounding plans are already out of the gate, undergrounding is being implemented, and General Rate Case determinations are underway to determine how much undergrounding and what balance of hardening measures are in the public interest. TURN therefore requests that OEIS order utilities to resolve key issues before approving their current WMPs.²¹ MGRA agrees with this position.

3.2. Green Power Institute

3.2.1. Completeness of Draft Decisions

GPI comments echo the same concern raised in MGRA’s comments that the current Draft Decisions do not adequately cover the broad spectrum of issues covered in the 2023-2025 Base WMPs.²² MGRA agrees with GPI that:

“It is therefore imperative that the Base WMP be subjected to rigorous evaluation, and that ACIs establish requirements that result in material improvements that operationalize study findings. ACIs issued for the 2023-2025 WMPs will, in particular, set the course for mid-decade progress on WMP method development and wildfire risk reduction. The next opportunity to materially steer the direction of IOU WMP strategy will not arise until 2025, and will subsequently direct WMP work between 2026-2028, ending one decade after CPUC proceeding R.18-10-007, the original wildfire mitigation proceeding, was initiated.”²³

²⁰ TURN SCE Comments; p. 1.

²¹ “Energy Safety should require SCE to remedy the problems discussed in Section II, reflected in ACI 23-09, before its WMP can be approved.”; TURN SCE Comments; p. 4.

“Energy Safety should require SDG&E to make the necessary corrections to its grid hardening selection approach in this WMP (which covers at least 2023 and 2024) and revise its undergrounding and covered conductor targets before approving this WMP.”; TURN SDG&E Comments; p. 2.

²² MGRA Comments; pp. 7-8.

²³ GPI Comments; p. 3.

3.2.2. Utility risk models

GPI comments raise issues with utility risk models that mirror and complement criticisms raised by MGRA in its WMP Comments. MGRA supports GPI recommendations to:

- Push toward a unified model of utility risk rather than allowing complex and arbitrary bespoke utility solutions to become entrenched.²⁴ MGRA agrees that the Technosylva POI model²⁵ should be evaluated, but it is premature to require its use by utilities until it has been fully vetted by regulators and stakeholders.
- Avoid the use of average consequences, which are only appropriate for normal distributions,²⁶ and completely inappropriate for the power law distributions typical of wildland fire losses.²⁷

A clarification is required regarding GPI's comment on ACI 23-04 and ACI 23-02:

“Evaluating wildfire risk using 1-in-60 year weather conditions will likely result in even higher risk scores and could expand the scope of undergrounding work depending on utility risk model application approaches.”²⁸

Using a longer timescale for evaluation of extreme wind events does not necessarily lead to the conclusion that additional undergrounding will be necessary. While more extreme events become more probable over longer timescales, it is not necessary to adjust to these rare events using expensive engineering countermeasures. An extreme or even “Black Swan” fire weather event can be addressed by power shutoff. The societal cost of additional shutoff event every few decades needs to be balanced against more extreme engineering requirements, including more extensive and expensive undergrounding. Advanced notice of such events should be available through advanced forecasting, and rehearsed contingency plans should be available to utilities, regulators, and emergency services. Regulators and stakeholders will need to determine where the appropriate level of system improvement and customer cost can be balanced using PSPS as a backstop for the most extreme conditions.

²⁴ GPI Comments; p. 15.

²⁵ GPI Comments; p. 17.

²⁶ Id; p. 16.

²⁷ See MGRA Comments Appendix A (Separate Filing).

²⁸ GPI Comments; p. 19.

MGRA also agrees with GPI that fire suppression must continue to be incorporated into risk modeling.²⁹

3.3. Cal Advocates

3.3.1. Power shutoff

Cal Advocates recommends that “*Energy Safety should also require SDG&E to sufficiently explain the decision-making that supports its reliance on undergrounding as the main mitigation measure for circuits that are the most at risk of being de-energized.*”³⁰ MGRA agrees, and would also suggest that this analysis be supplemented with an alternative plan that shows the extent to which PSPS impacts would be reduced by a covered conductor solution with increased wind thresholds.

3.3.2. SCE risk model

Cal Advocate raises a number of the same issues that MGRA did regarding SCE’s IWMS model. MGRA concurs that “*Energy Safety should direct SCE to adopt a balanced risk assessment methodology, weighing both potential consequences and ignition likelihood.*

*In its 2023 WMP, SCE shifts from a quantitative approach to a more qualitative Integrated Wildfire Mitigation Strategy, which focuses on minimizing catastrophic wildfire consequences rather than balancing wildfire ignition likelihood and consequences.11 In doing so, SCE diverges from industry-standard practices in risk assessment methodology. This departure has a direct impact on customer safety and the effectiveness of SCE’s 2023-2025 WMP.”*³¹

4. CONCLUSION

MGRA urges Energy Safety to seriously consider its comments and those of its fellow intervenors and to incorporate their suggestions and input, which has based upon rigorous analysis

²⁹ GPI Comments; p. 22.

³⁰ Public Advocates SDG&E Comments; p. 3.

³¹ Public Advocates SCE Comments; p. 3.

of the 2023-2025 WMPs. MGRA thanks Energy Safety staff for the effort they have put into what has been the most voluminous and comprehensive filing by utilities and stakeholders to date.

Respectfully submitted this 29th day of September, 2023,

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