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Office of Energy Infrastructure Safety
Natural Resources Agency

**COMMENTS OF THE GREEN POWER INSTITUTE ON THE
DRAFT DECISIONS ON THE 2023-2025 WILDFIRE
MITIGATION PLANS OF SCE AND SDG&E**

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The Green Power Institute (GPI), the renewable energy program of the Pacific Institute for Studies in Development, Environment, and Security, provides these *Comments of the Green Power Institute on the Draft Decisions on the 2023-2025 Wildfire Mitigation Plans of SCE and SDG&E*.

Introduction

OEIS issued Draft Decisions on the 2023-2025 Base Wildfire Mitigation Plans for Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E) on August 30, 2023. We submit comments for both Draft Decisions in the same filing in order to address parallel issues while also specifying recommendations for each electric utility. We provide comments on the following topics:

- The 2023-2025 Base WMPs warrant more a detailed review in the Draft Decisions and Base WMP Draft Decisions should include more concrete recommendations that result in updated standards and or applications informed by current and on-going studies.
- Format Standardization.
- Input from the Office of the State Fire Marshal (including CAL FIRE) should be formally entered into the record, made publicly available, and should be summarized in the WMP Draft Decision.
- Sections “4. Introductory Sections of the WMP” and “5. Overview of the Service Territory” are completeness checks.
- Section 6. Risk Methodology and Assessment summaries are vague and do not provide the assessment that is necessary to improve the models, model application, or move California to a unified approach.

- Section 6. Risk Methodology and Assessment, SCE-22-22 has not been adequately addressed.
- Section 6. Risk Methodology and Assessment 2023 ACIs will not produce meaningful change that aligns risk models and moves wildfire mitigation planning towards state-wide planning standards that balance reliability, cost, and safety.
- Section 7. Wildfire Mitigation Strategy Development, Subsection 7.1 Risk Evaluation addressing SDG&E’s WMP is vague.
- Section 7. Wildfire Mitigation Strategy Development, Subsection 7.2 Risk Informed Framework – The ACI is likely to result in multiple divergent methods, and the ACI does not result in operationalizing best practices.
- Section 7. Wildfire Mitigation Strategy Development, Subsection 7.3 Wildfire Mitigation Strategy ACIs should be updated to drive model alignment and/or apply to all IOUs.
- Section 8.1 Grid Design Operations and Maintenance format and ACI recommendations
- Section 8.2 Vegetation Management and Inspections ACI
- GPI’s written and oral Comments on IOU WMPs have directly contributed to ACIs issued in the Draft Decisions on SCE and SDG&E’s 2023-2025 Base WMP. Stakeholder comments also contribute to the justification basis for Draft Decisions, enrich the WMP public record, can encourage change at the LSE-level, and can initiate long-term ideation that is not yet formally adopted or formalized in the record.

The 2023-2025 Base WMPs warrant more a detailed review in the Draft Decisions. Base WMP Draft Decisions should include more concrete recommendations that result in study operationalization.

GPI appreciates the challenge of reviewing and distilling down the IOU Base WMPs and data requests and responses issued during the review period. MGRA cites reviewing around 5,000 pages of WMP content.¹ PG&E’s 2023-2025 Base WMP was 1,500 pages alone, up two orders of magnitude from the 28-page 2019 Wildfire Safety Plan Compliance Report filed in 2020. This does not include the Maturity Surveys – which regrettably GPI was unable to review given

¹ MGRA Opening Comments on the 2023-2024 IOU Base WMPs, p.2

time and resource constraints. The volume of content presents challenges for comparing IOU plans and extracting critical deficits and strengths that determine the effectiveness of each IOU's approach. Critically, the redesigned Base WMPs contain the core plan for each IOU over the next 3-years, and establish the foundation for the intermediate year Update plans that summarize material changes and progress relative to Base WMP targets and objectives.

Approval of a Base WMP and the Areas for Continued Improvement (ACIs) therein will establish the trajectory for the entire 3-year WMP cycle, contrary to previous WMPs where annual updates effectively constituted entirely new plans and the review assessment focused on same-year targets and objectives. 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. GPI therefore urges the OEIS to consider these Draft Decisions as an opportunity to initiate substantive trajectory adjustments that are necessary to unify and optimize electrical infrastructure wildfire risk mitigation at the state level.

The Draft Decision review format includes a summary of Section contents, selected targets and objectives, maturity survey results, plan strengths, and ACI. Many section content summaries are effectively completeness checks, and do not provide a thorough assessment of WMP content or approach. Some summary contents are more robust than others. Wide variation in summary detail indicates review quality and/or WMP transparency gaps. For example, the WMP summaries in Section 7.1 Risk Evaluation, present SCE's traceable method for defining risk tranches, a SME review processes, and SME reviewed mitigation deployment based on the model-based risk tranches; while SDG&E's summary only states that they have a risk model with critical risk modeling components, and they rely on the model for risk evaluation.^{2,3} If the

² OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 28

³ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 26

Draft Decision cannot present a parallel outline of SDG&Es Risk Evaluation including the process by which SDG&E converts specific quantitative risk planning standards (i.e. model outputs *and their functional meaning*) into a risk mitigation selection and deployment framework and whether (and/or when/where) SME review of the model results occurs in the mitigation selection or deployment decision making process – this is a critical weakness for both the WMP and the Draft Decision. GPI recommends bolstering section summaries with parallel outlines of WMP critical capabilities expected for each WMP section.

Selected targets are not clearly tied to or referenced in the descriptions of topical maturity survey results, strengths, or ACIs. GPI recommends bolstering the Targets and Objectives sections and subsequent review by including a summary of factors such as: (1) IOU past success or shortfalls in terms of achieving targets and objectives outlined in previous plans; (2) any shifts in the rate of asset deployment and the criticality of achieving those rates in order to ensure timely risk-buydown; and (3) linking selected targets to plan strengths and weaknesses. For example, while an IOU may have a target- or objective-based deployment plan for a particular mitigation (i.e. the output), timely and cost-effective risk-buy down and transparency into output effectiveness may still be a plan weakness (i.e. the outcomes).

The Maturity Survey was updated in 2023 to include 456 pages of over 1,000 questions that support minimum and average scoring across seven categories, each with multiple capabilities and sub-capabilities. A substantial portion of the IOU Base WMP Draft Decision Section summaries is consumed by plots of minimum and average maturity survey scores for each of the IOUs across the planning years with a few notes on the elements that anchor minimum and maximum maturity. Since the maturity survey was substantially re-worked in 2023, we understand that the analysis cannot extend to previous years. However, we are concerned that (1) the maturity survey assessment are IOU self-assessments; (2) maturity survey responses by design may unintentionally overestimate or underestimate method maturity or appropriateness of outcome; and (3) the maturity results are not clearly linked to discussions of WMP strengths and weaknesses and in some instances are contradictory.

As self-assessments the maturity survey questions are open to interpretation by each IOU and we anticipate that there is likely substantial room for interpretation given past response discrepancies

and the complex nature of wildfire mitigation planning relative to the short, straightforward Maturity Survey Model questions. To our knowledge, IOU responses to the Maturity Survey were not reviewed for Quality Control in relation to the WMPs, and therefore may contain bias associated with IOU subjectivity, even if unintended. We have therefore often viewed the Maturity Survey as a useful supporting assessment, not a primary assessment tool. We are therefore concerned that Maturity survey summaries appear to make up an outsized contribution of the WMP review.

The Maturity survey is also limited in its ability to assess whether a tool/method/approach that qualifies as meeting a maturity benchmark is in fact appropriate or effective. As a generic example – a “Yes” response to Maturity Survey 1.1.2.Q9: “Do electrical corporation models include fire suppression activities as inputs?”⁴ would not necessarily mean the utilities are using the same fire suppression methods, inform whether they are using outputs that equivalently capture the impacts of fire suppression, nor reveal the potential impact of using suppression modeling in their respective wildfire mitigation efforts. Simply put, checking a box testifying to achieving an output out of context of the outcome has limited value, to say the least.

Linking current and projected Maturity Survey-informed strengths and weaknesses to planned WMP outputs *and their outcomes* is therefore critical to functionalizing the survey results. However, the Draft Decisions present Maturity Survey Results in a largely siloed fashion. GPI recommends decreasing the relative importance of Maturity Survey review in the Draft Decisions given the substantial potential for unintended bias. We further recommend anchoring the relevance of reported category and capability maturity by linking the results to a richer set of WMP outputs and outcomes. From the previous example, if the planned inclusion of fire suppression activities as a model input is accompanied with a WMP plan and timeline to conduct wildfire risk modeling sensitivities or scenarios that inform the effect of the new sub-model addition, an assessment of the strengths and weaknesses, and present a transparent justification for including or eliminating the sub-model for clearly defined decision making purposes, then the Maturity Model response can be referenced and validated, and the review is enriched.

⁴ TN12118_20230426T120226_Revised_2023_Maturity_Survey, p. 6

The achievement of a Maturity Survey element could also mask capability gaps. As another generic example, simply having a PoI model versus having a comprehensive PoI model and/or model suite that transparently assesses and addresses risk modeling capabilities, limitations, unintended bias, or difficult to constrain risk are two very different things. GPI raised similar concerns in our comments on the Draft 2023 WMP Guidelines, which hold for the Final 2023 Maturity Survey.⁵ Maturity Survey results must be taken in context of the WMP plan outputs and outcomes in a more holistic review. GPI recommends integrating this holistic review approach into the Draft Decisions in order to consider whether Maturity Survey responses align with the strengths and weaknesses of present and planned WMP outputs and outcomes.

Plan section strengths are summarized in Draft Decision subsections and seem intended to highlight the most robust aspects of each utility plan. However, we are concerned that plan strength statements are not linked to quantitative targets, qualitative objectives, maturity survey results, or more detailed technical plan reviews, and the description quality is not consistent between SCE and SDG&E. For example, Section 7.1 Risk Evaluation provides a brief summary of SCE and SDG&E topical plan strengths, stating:

SCE effectively coordinates with internal and external stakeholders and decision makers. For example:

Internally, SCE briefs its executive leadership monthly on WMP status, including progress toward meeting the mitigation goals set in the WMP.

Internally, SCE holds wildfire safety meetings weekly—or more frequently as needed—to advance strategic wildfire mitigation and PSPS planning and execution.

SCE meets with local governments including city councils, county boards and tribal governments to share strategic decisions that will impact the local area and to gather feedback on SCE’s wildfire programs and community needs.⁶

And:

⁵ GPI Comments on Draft 2023 WMP Guidelines October 26, 2022, p.

⁶ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 29

SDG&E's WiNGS-Planning tool integrates multiple risk likelihood and consequence models, thereby supporting a risk portfolio perspective that facilitates an analysis of trade-offs between alternatives.⁷

Each of these statements address a completely different aspect of Risk Evaluation and implementation. Yet, the ACI for both SCE and SDG&E for Section 7.1 is the same: "PSPS and Wildfire Risk Trade-Off Transparency." If, for example, OEIS does not believe that SDG&E "effectively coordinates with internal and external stakeholders and decisions makers," then improvements should be required by way of an ACI. It may help to establish WMP Section capabilities, whether guided by an evaluation rubric or the Maturity Survey (or both), and summarize the strengths and weaknesses associated with each capability. Weaknesses should map directly to ACIs.

Each of the Draft Decisions reporting elements – summary, targets and objectives, maturity survey responses, strengths, and remaining weaknesses – should be considered holistically and should together tell a comprehensive "story" that results in actionable recommendations (i.e. ACIs) that improve the section elements and WMP as a whole. GPI respectfully recognizes that this is not a trivial task given the volume of WMP content, novelty of the WMP filing format, and the relatively short review window. However, since these plans dictate the trajectory of electrical infrastructure wildfire mitigation planning across much of the state for the next three years, GPI believes it is prudent to expand on the current the Draft Decision content and approach, even if it requires additional time.

GPI is also generally concerned by ongoing requirements for continued cross-utility studies, communication, and benchmarking. These activities do not necessarily result in deliverables that operationalize communication and information sharing. Communications, studies, and benchmarking must lead to operationalization. For example, it is not sufficient to simply identify differences in utility risk modeling or to quantify the effectiveness of various mitigations – these findings require action in order to realize the potential benefits. We address this concern with

⁷ OEIS 2023 Draft Decisions on SDG&E 2023-2025 WMP, p. 26

respect to specific ACIs in subsequent comment topics. In general, we recommend designing each ACI with a suite of deliverables that require IOUs to operationalize collaborations, studies, and benchmarking.

Format Standardization

The Draft Decisions have generally consistent formatting that facilitates cross utility review. GPI respectfully highlights the following format inconsistencies to improve the final Decisions:

- Maturity survey summaries do not consistently summarize the maximum, minimum (limiting), and “lowest level of projected maturity” scoring elements contributing to the reported IOU minimum and average maturity scores. For example, there is no summary of limiting capabilities for SDG&E Draft Decision Section 6.3. We also request that the Draft Decision clarify what is meant by “lowest level of projected maturity.”
- Update ACIs as needed to standardize subsection formatting. For example, SCE’s Draft Decision Section 7.1.2 has an ACI subsection title, while SDG&E does not.
- SDG&E Draft Decision Figure 4.1-1 SDG&E Grid Design, Operations, and Maintenance Projected Expenditures (HFTD) reports zero HFTD expenditures for Covered Conductor installation from 2023-2025. GPI recommends checking this for accuracy.

Input from the Office of the State Fire Marshal (including CAL FIRE) should be formally entered into the record, made publicly available, and should be summarized in the WMP Draft Decision

The Draft Decisions state that by law (PU Code section 8386.3(a)), OEIS is “required to consult with the Office of the State Fire Marshal in reviewing electrical corporations WMPs and WMP Updates.”⁸ It then states that meaningful consultation and input was provided but the Draft Decision is the sole action of OEIS. However, comments from the Office of the Fire Marshal are not available on the WMP OEIS docket, nor are they listed as a contributor in Appendix C. Stakeholder Comments on the 2023-2025 Wildfire Mitigation Plans.⁹ At present there is no way

⁸ E.g. OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 2

⁹ E.g. OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. A-0

to confirm the extent or contents of the Office of the State Fire Marshal consultation and/or how the input informed the OEIS decision. GPI views this as a critical transparency issue.

GPI strongly recommends that consultation and input from the Office of the State Fire Marshal should be made publicly available by formally entering it into the WMP record via written and filed comments in the appropriate WMP docket. The OEIS Draft Decisions should also outline the number, types, and dates of consultation interactions (e.g. meetings, etc.) with the Office of the State Fire Marshal and clearly reference how input from the Office of the State Fire Marshall informed the Draft Decision. While the Draft Decision may solely be the action of the OEIS and not the Office of the State Fire Marshall, this does not constitute a free pass for process and input opacity.

Sections “4. Introductory Sections of the WMP” and “5. Overview of the Service Territory” are completeness checks.

Sections “4. Introductory Sections of the WMP,” and “5. Overview of the Service Territory” are, in effect, completeness checks that constitute a substantial portion of the Draft Decisions. While introductory information is critical for framing the Draft Decisions, these and the preceding sections extend the introductory content through document page 25 of 103, or approximately 25 percent of the Draft Decision. Box checking summaries, large blank spaces, and boilerplate introductory language also extend throughout the plan, further expanding the proportion of the Draft Decisions that provide no material assessment of the Base WMPs. GPI is generally concerned that such a large portion of the Base WMP Draft Decisions is dedicated to WMP process and completeness checks and boilerplate language.

GPI recommends expanding the Draft Decision assessment regarding Community Values at Risk (Section 5.4), and the Base WMP Section 5.4.3 Communities at Risk from Wildfire, to summarize whether and how the IOUs operationalize each required piece of information in their risk mitigation and impact reduction efforts. Supplying data on community values at risk has limited impact if the findings are not applied, both in terms of the WMP and the Draft Decisions. GPI commented on PG&E’s forthcoming community demographic-based egress models as one example of how utilities are working towards taking community vulnerability into account in risk assessment and risk-informed mitigation. We further commented on how this will result in

very different egress models.¹⁰ More broadly this example speaks to divergent applications of community vulnerability in utility wildfire mitigation plans that can affect wildfire risk mitigation *equity* for California ratepayers. Notably, D.20-08-046 issued in the Climate Adaptation Proceeding (R.) includes in the Conclusions of Law:

“[Disadvantaged Vulnerable Communities] DVCs may require extra attention to promote equity when the IOUs begin making infrastructure, operations and service changes as part of their climate adaptation efforts.”¹¹

And:

The term “prioritization” within the context of DVCs means that an IOU’s engagement with a community that is a DVC may require extra resources, and more engagement and attention, because it is less able to fund or organize adaptation efforts on its own.¹²

It would be prudent for the WMP process to take Climate Adaptation Decisions such as these into consideration, and discuss the current strengths and weaknesses of the WMPs and how they address or align with the CPUC Decisions.

Section 6. Risk Methodology and Assessment summaries are vague and do not provide the assessment that is necessary to improve the models, model application, or move California to a unified approach

Wildfire risk planning models are the basis for determining granular risk that informs long-term mitigation selection and deployment as well as inspection prioritization, amounting to the expenditure of *billions of dollars of ratepayer funds* that must ultimately substantially improve ratepayer safety *while balancing reliability and cost*. Operational models inform when PSPS and other interim and backup safety measures are enacted, which also affects ratepayer reliability, safety, and costs. The importance of WMP Risk Methodology and Assessment to balancing cost, safety and system reliability cannot be overstated. Insights gained from quantitative models

¹⁰ GPI Comments on the 2023-2025 IOU WMPs, p. 63

¹¹ D.20-08-046, p. 109

¹² D.20-08-046, p. 109

cannot be replaced by SME input, although this does not negate the value of SME input.^{e.g.13,14} The cited studies do not directly address wildfire mitigation models, but they do provide examples of how SME and model findings can be complementary, as well as examples of how models out-perform humans. While models in general have limitations, are vulnerable to bias, and contain uncertainty (as do SMEs), the IOU wildfire risk planning and operations models aggregate a vast amount of data that no single SME or group of SMEs within the utilities could collate and process into a spatially and temporally granular assessment of wildfire risk informed by decades of historic and projected condition and event data.

The Draft Decisions on SCE and SDG&E's Base WMPs only offer two unique summary sentences on Risk Methodology (Section 6.1), and a very high-level summary of IOU Risk Analysis Frameworks (4 unique sentences each) that amount to box-checking the existence of wildfire risk planning and operation models (Section 6.2). The Draft Decision for SCE does not mention operation models. Other copy in these two sections is the same for both IOU Draft Decisions and only provides context for the reader. The six sentences in the Draft Decisions on SCE and SDG&E's risk modeling methods and frameworks are an exceptional failure to recognize the extent to which WMP planned investments and resulting ratepayer reliability, cost, and safety are tied to risk model design and application.

The Draft Decision summary of Maturity Survey results on Risk Methodology and Assessment is lacking in multiple ways, including its usefulness in evaluating utility risk model design maturity and its ability to provide any material input on the appropriateness of utility risk model approach and application. Formatting-wise, Maturity Survey response summaries in the Draft Decisions inconsistently summarize some combination of the limiting, most advanced, and "lowest-level of projected maturity" with respect to risk modeling capability maturity. More importantly, the Draft Decision summaries do not provide any context for which models or sub-models the maturity survey results are referring to, even at the level of planning versus

¹³ Saveski, M., Awad, E., Rahwan, I. *et al.* Algorithmic and human prediction of success in human collaboration from visual features. *Sci Rep* **11**, 2756 (2021). <https://doi.org/10.1038/s41598-021-81145-3>

¹⁴ Bosse NI, Abbott S, Bracher J, Hain H, Quilty BJ, et al. (2022) Comparing human and model-based forecasts of COVID-19 in Germany and Poland. *PLOS Computational Biology* 18(9): e1010405. <https://doi.org/10.1371/journal.pcbi.1010405>

operations risk model assessment. For example, SCE’s maturity level is purportedly limited by its failure to “provide the basis for its design percentiles.” There is no context for which model(s) this deficit is referring to: Planning and/or operations models? Likelihood of Risk Event and/or Consequence of Risk Event Models? Wildfire or PSPS risk models? The maturity model result summaries also fail to provide material insight into the built-in risk planning thresholds and IOU-determined risk tolerance that ultimately inform mitigation investments.

GPI recommends expanding the Draft Decision summaries of Risk Methodology and Assessment Maturity Survey scores to make more meaningful connections such as whether maturity strengths and weaknesses inform how to materially improve a model, inform a model’s ability to appropriately assess tradeoffs between reliability, safety, and cost, provide risk planning threshold/standard transparency, or inform model alignment opportunities. Minimally this should include referencing Maturity Survey findings in the Strengths and weakness (ACI) sections. GPI strongly recommends going beyond basic internal references. For example, SCE’s failure to provide the *basis* of its design percentiles, which we will interpret as referring to SCE’s mitigation planning tranches based on an approximation of 1-in-20-year event conditions and an acreage-burned threshold (simulated, consequence-based), indicate the need for a design basis scenario analysis that includes a range of event frequencies (i.e. condition severity) and acreage-burned thresholds combined with simulated mitigation buildout scenarios for each design basis scenario that outputs local and total risk reduction and associated cost.

In the Strengths section, the summary of SCE’s WMP includes the value of using multiple models and attributes to identify risk planning tranches. The summary of SDG&E’s model refers to the new integration of AFN data (ops model) and forthcoming visualization platforms and lifecycle cost considerations (planning model) – it says nothing with respect to the strengths of SDG&E’s model approach, assumptions, outputs, planning thresholds, or application framework. We suspect the lack of detailed description regarding SDG&E’s WiNGS-Planning model is linked to limited transparency into their risk modeling methods. GPI identified transparency issues in SDG&E’s WMP’s risk planning model documentation.^{15,16,17} Risk Method and

¹⁵ GPI Comments on the 2023-2025 IOU WMPs, p. 33

¹⁶ GPI Comments on the 2023-2025 IOU WMPs, p. 44

¹⁷ GPI Comments on the 2023-2025 IOU WMPs, p. 51

Assessment – Strength summaries are inadequate, and fail to provide any meaningful insight into model mechanics, which approach is most well suited to informing wildfire risk-based planning, the value of planned updates, or provide adequate justification for the selected ACIs.

GPI agrees with the Draft Decision that SDG&E’s forthcoming visualization platform for WiNGS- planning model outputs is a Plan strength. In fact, GPI highlighted this strength in our Base WMP Opening Comments and prior to this development we repeatedly recommended that the IOUs make their risk model outputs and mitigation plans publicly available on a web-based platform.^{18,19,20,21,22,23}

Section 6. Risk Methodology and Assessment, SCE-22-22 has not been adequately addressed.

The Draft Decision states that SCE adequately addressed its 2022 ACIs, including SCE-22-22 Third Party Confirmation of RSE Estimates and refers to Appendix B for more information.²⁴ Appendix B simply re-states that SCE sufficiently addressed the requirement. GPI commented on SCE-22-22, citing the required study and its finding that: “... it would be an overreach to characterize the RSE results as accurate,” and stating: “... we recommend exercising caution when considering the evaluated RSEs of these affected programs for decision-making purposes until the informative models are complete and implemented.”²⁵ Based on our review of SCE’s planned actions, they will not make the suggested critical updates to RSE inputs required to make these values suitable for use in risk-informed planning.²⁶ GPI strongly recommends that the Draft Decision reverse the statement regarding SCE-22-22, and create an ACI that requires

¹⁸ GPI Comments on the 2023-2025 IOU WMPs, p. 83

¹⁹ Comments of the GPI on the 2023 Wildfire Mitigation Plan Guidelines and April 22, 2022 Workshop

²⁰ GPI COMMENTS ON REDUCING UTILITY-RELATED WILDFIRE RISK: UTILITY WILDFIRE MITIGATION STRATEGY AND ROADMAP FOR THE WILDFIRE SAFETY DIVISION

²¹ COMMENTS OF THE GREEN POWER INSTITUTE ON THE AUGUST WORKSHOPS, p. 3-4

²² COMMENTS OF THE GREEN POWER INSTITUTE ON THE WMP ROADMAP, p. 22-24

²³ COMMENTS OF THE GREEN POWER INSTITUTE ON THE WSAB DRAFT RECOMMENDATIONS ON THE 2022 WILDFIRE MITIGATION PLAN GUIDELINES p. 3-4

²⁴ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 24

²⁵ Exponent. (2023) Findings from Review of Southern California Edison’s 2023 Wildfire Mitigation Plan Risk-Spend Efficiency Calculations date February 7, 2023. pp 1-2, 19

²⁶ GPI Comments on the 2023-2025 IOU WMPs, p. 56-60

SCE to correct the critical issues identified by the third party review regarding their RSE values and/or require SCE to explain why they have decided not to make the recommended updates.

Section 6. Risk Methodology and Assessment 2023 ACIs will not produce meaningful change that aligns risk models and moves wildfire mitigation planning towards state-wide planning standards that balance reliability, cost, and safety.

We conceptualize utility wildfire risk modeling and resulting mitigation as a “wicked problem,” which is not defined by true versus false, but rather good versus bad, or perhaps even good, better, best. These types of problems typically have a wide range of trade-off solutions, and often include some form of philosophical or value-based decision making. As characteristic of wicked problems is that there is no “ultimate test of a solution,” and every solution is a “one-shot operation”; because there is no opportunity to learn by trial and error, every attempt counts significantly.”²⁷ This type of problem is also defined by the condition that “the planner has no right to be wrong,” meaning “Planners are liable for the consequences of the actions they generate, the effect can matter a great deal to those people that are touched by those actions.”²⁸ GPI enters this concept into the WMP record since we believe it helps frame the current gridlock on wildfire risk planning method development and the core challenges that the state, utilities, and public face in the WMP development process as a whole. As a wicked problem, wildfire risk model decision making would be greatly facilitated by state-level direction that is informed by a rich, public record of expert third-party review and stakeholder input. GPI strongly recommends changing the ACI in the 2023-2025 Base WMP in order to overhaul the IOU wildfire risk planning models into a unified method. This recommendation is in contrast to the current ACI approach, which will only continue conversations and attempt to unify models by requiring divergent incremental model adjustments without necessary targets or objectives in place.

The Draft Decisions issues SCE and SDG&E four new and identical ACIs that address Section 6 Risk Methodology and Assessment. We address each in sequence:

²⁷ Rittel, H. W., & Webber, M. M. (1973). "Dilemmas in a General Theory of Planning." *Policy sciences*, 4(2), 155-169.

²⁸ Rittel, H. W., & Webber, M. M. (1973). "Dilemmas in a General Theory of Planning." *Policy sciences*, 4(2), 155-169.

SCE/SDGE-23-01 Cross-Utility Collaboration on Risk Model Development

- GPI is a participating member of the RMWG. We appreciate this forum and the efforts of all participants, including the IOUs, towards developing a deeper understanding of existing and alternate risk models, inputs, outputs, and applications. We also support the continuation of the RMWG as required by SCE/SDGE-23-01.
- RMWG impact is challenged by the herculean task of discussing complex modeling topics in terms of both breadth and depth on tight 3-h timeframes for what amounts to 7 different risk planning models (and sub-models there-in).
- The intention of cross-utility collaboration includes identifying the best way to model the wicked problem of utility wildfire risk. However, to date the RMWG has and will likely continue to have limited capacity to affect model change and guide models towards a unified approach without state-level directives. It is important to recognize that the RMWG can only take risk model development so far, and is perhaps unlikely to result in a unified solution to wildfire risk modeling challenges—rather Utility-specific wildfire risk planning models appear to be stabilizing and are rapidly becoming entrenched. Requirements for material changes to utility wildfire risk model design, including an overhaul that would unify electric utility risk model approaches across the state, must come from OEIS and/or the CPUC.

SCE/SDGE-23-02 Calculating Risk Scores Using Maximum Consequence Values

- GPI suspects the intention of issuing this ACI to SCE and SDG&E includes unifying IOU risk modeling approaches. This objective and the ACI take from GPIs Opening Comments on the Base WMPs which states that “...at minimum the [CoRE] method should be based on the same definition of consequence risk (e.g. max, average, frequency)...”²⁹
- However, we do not believe the ACI will achieve this outcome or will improve wildfire risk planning standards. The ACI is too vague and does not specify how/where consequence models are expected to use probability distributions or averages. Requiring the utilities to incorporate averages into their existing risk planning modelling methods will preserve the current status of 6 different methods and may even result in methodological divergence. It is imperative to adopt a unified Utility wildfire risk planning model before tinkering with input and output formats. GPI

²⁹ GPI Comments on the 2023-2025 IOU WMPs, pp 50

and representatives of the WSAB provided comments to this affect, calling for model alignment at the Joint OEIS-CPUC workshop under the Climate Adaptation proceeding.³⁰

- Averaging of the utilities' different model input or output data sets will result in different and in some cases nonsensical values. For example, averaging SCE's approximated 1-in-20-year wildfire consequence scores will have no functional meaning, since the 444 scenarios are neither selected to reflect a probabilistic distribution of environmental conditions, nor are all 444 scenarios the "maximum" or "worst case" or even the top n-th percentile for each pixel analyzed. It is not appropriate to average SCEs 444 consequence outputs at the pixel level.
- Averaging consequence values that are outputs based on a statistical distribution of input conditions from a historic dataset would be akin to planning for a 1-in-2-year event. This might be a low bar for wildfire risk mitigation planning. The risk map would also vary depending on the duration of historical input data (e.g. SCE's 20-year versus SDG&E's 13-year data set) particularly due to the recent impacts of climate change.
- SDG&E already uses averages in their wildfire consequence estimation. GPI discusses this in our opening comments.³¹
- Discussions in the RMWG have repeatedly raised concerns about using averages in risk modeling. It is technically only appropriate to apply averages to normal distributions. The flattening effect that averaging has on the final result depends on a plethora of factors including when and where averages are applied. GPI discusses multiple cases of averaging in utility risk modeling in our Base WMP Comments. One example of the impact of averaging was shown using PG&E's average ignition rate versus their risk-diver specific ignition rates.³² Another example from GPI comments addressed SDG&E's PoI model.³³
- Minimally, the ACI should remove all references to averaging and only specify the use of probability distributions. However, GPI fears this will only punt the ACI's concerns regarding "unrealistically high-risk scores" to a future year. The IOUs would still have to select a percentile as a risk threshold to inform mitigation planning. Severe weather conditions can still form the basis of Utility consequence models and mitigation selection when using percentile-based risk planning thresholds.

³⁰ Public Workshop on Safety Requirements to Address Increasing Wildfire Risk from Climate Change and Aging Infrastructure July 13-14, 2023.

³¹ GPI Comments on the 2023-2025 IOU WMPs, pp 44-45

³² GPI Comments on the 2023-2025 IOU WMPs, pp 37-38

³³ GPI Comments on the 2023-2025 IOU WMPs, pp 42

- The Draft Decision and ACI does not provide any guidance on what is considered an appropriate risk planning threshold or percentile. The absence of risk modeling scenario testing and/or a state-issued planning standard establishing risk tolerance means that there is no accepted definition of “realistic” or “unrealistic” risk scores or risk tolerance. GPI addressed this challenge in our comments during the joint OEIS/CPUC workshop on July 13-14, 2023, and in comments during RMWG meetings. Each utility is currently required to establish their own definition of what constitutes an acceptable risk planning standard and therefore risk tolerance.
- Based on the above, GPI recommends eliminating this ACI and instead replacing it with one of two new ACIs. GPI prefers option b or c.

IOU-23-02a – The IOUs must evaluate wildfire risk planning scenarios corresponding to 1-in-2, 1-in-10, 1-in-20, and 1-in-60-year design basis for both wind and fuel-driven fire conditions using their existing wildfire risk planning models to the extent possible. IOUs must report on the method used and results of each scenario, and include how the results would impact their risk mitigation implementation plan and estimated cost in the 2026-2028 Base WMP.

IOU-23-02b – The IOUs must develop a Joint-IOU wildfire risk planning model by the end of the 3-year WMP cycle. They must provide a model development plan and timeline, provide updates on model development progress in each WMP Update, and implement the model in the 2026-2028 Base WMP. The model testing and reporting must include wildfire risk planning scenarios corresponding to 1-in-2, 1-in-10, 1-in-20, and 1-in-60-year design basis using the Joint IOU model.

IOU-23-02c – The IOUs must use Technosylva PoI and Consequence models and develop a Joint-IOU wildfire risk planning model approach by the end of the 3-year WMP cycle. They must provide a model development plan and timeline, provide updates on model development progress in each WMP Update, and implement the model in the 2026-2028 Base WMP. The model testing and reporting must include wildfire risk planning scenarios corresponding to 1-in-2, 1-in-10, 1-in-20, and 1-in-60-year design basis using the Joint IOU model.

- GPI tentatively and cautiously supports SCE’s consequence-based risk planning model framework and tranche method, largely for its transparency and relative simplicity in regards to model design, design basis, risk planning thresholds, use of multiple complimentary models to

stop-gap model limitations and biases, and application in a risk-informed decision-making framework that is reviewed by SMEs. GPI is also greatly encouraged by Technosylva's comprehensive PoI and Consequence modeling package described in the SMJU plans. These comments do not negate any issues GPI or other parties have raised or will raise in regards to SCE or other utility risk planning models. We are open to considering all options for a unified wildfire risk planning model design. *Our primary objective in making this statement is to initiate discussions and debate that could lead to a unified, statewide electric utility wildfire risk planning model.*

- There is substantial precedence in CPUC proceedings for requiring IOUs to develop joint models (e.g. R.14-08-013) or for multiple IOUs to present different model options that are open for review and debate prior to the CPUC selecting one model for use going forward. There is also precedence for adopting third party and/or open access models (e.g. R.20-05-003) to facilitate public stakeholder and third-party contributions.

SCE/SDG&E 23-03 PSPS and Wildfire Risk Trade-Off Transparency

- GPI supports increased transparency into the utility risk planning models and generally supports the proposed ACI. However, it is critical to acknowledge that requiring SCE and SDG&E to provide additional transparency will not result in methodological improvements. Only requesting additional information without also requiring scenario testing and/or model updates will push the next opportunity for real change out beyond 2025. The process of developing a Joint-IOU wildfire risk planning model would include and even necessitate transparency into all aspects of risk planning models and risk evaluation—The OEIS and stakeholders should not and will not back or approve a model that is opaque. Engagement of a third-party expert review team, or adopting a third-party developed model (e.g. Technosylva), could also facilitate transparency. We also strongly recommend requiring scenario testing. Scenario testing should include a range of considerations such as what would the mitigation plan look like if PSPS risk was prioritized? If CC++/REFCL was the default mitigation and only select extreme high-risk locations were undergrounded?

SCE/SDGE-23-04 Incorporation of Extreme Weather Scenarios into Planning Models

- The SCE Base WMP Draft Decision refers to SCE simulating a 1-in-20 year wind event and cites SCE’s Base WMP.³⁴ SCE does not make this statement. GPI’s opening comments make the approximation that SCE’s use of a 20-year data set to identify their 444 weather scenarios roughly translates to a 1-in-20-year consequence risk map.³⁵ SCE’s Base WMP notes that the 444 weather scenarios include extreme scenarios representing a 1-in-50-year frequency.³⁶ The Draft Decision should be updated to reference GPI and include SCE’s description on the maximum return intervals embedded in their 444 weather scenarios.
- ACI 23-04 is contradictory to ACI 23-02. ACI 23-02 suggests the current method of evaluating consequence based on ~1-in-20-year event conditions could lead to unrealistically high scores while ACI 23-04 states that “Using SCE current wind load data, SCE may be underestimating risks of ignition and consequence...”³⁷ 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. Technically the ACI contradictory statements are both true. This is the case because setting risk planning standards and thresholds is a “wicked problem.” The determination of what is “realistic” versus “unrealistic” tips into the realm of a value-based judgment, and currently there is neither scenario testing nor sufficient state guidance to inform what the “goldilocks” solution is.³⁸
- GPI recommends eliminating this ACI and replacing it with one of the proposed alternate ACIs, IOU-23-02a, b or c. These ACIs retain wildfire risk assessments under average (1 in 2 year) and extreme weather conditions but re-frame it into scenario testing that is necessary to inform what is meant by “reasonable.”

Section 7. Wildfire Mitigation Strategy Development, Subsection 7.1 Risk Evaluation addressing SDG&E’s WMP is vague.

The summary of SCE’s Risk Evaluation includes a clear outline of their Risk Evaluation framework including model application method, SME review and current basis for mitigation selection. The description of SDG&E’s Risk Evaluation approach only vaguely states that they use data from the WiNGS-Planning model that has “key data elements” and informs segment risk, risk buy down, and portfolio analysis. This description is excessively nebulous and

³⁴ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 26

³⁵ GPI Comments on the 2023-2025 IOU WMPs, p. 49

³⁶ SCE 2023-2025 Base WMP, p. 157

³⁷ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 26

³⁸ GPI Comments on the 2023-2025 IOU WMPs, p. 50

provides no insight into what constitutes “key data elements,” the quantitative or qualitative planning standards that are applied, or whether and how SME input is used in conjunction with model outputs. The Risk Evaluation summary in SDG&E’s Draft Decision must be updated to parallel the type of information and level of detail provided in SCE’s Draft Decision Section 7.1. We also recommend bolstering the brief statements on plan strength. If OEIS is unable to provide parallel information describing SDG&E’s Risk Evaluation method, this constitutes a critical transparency issue and WMP weakness, and an ACI ought to be issued to remedy the problem. GPI addressed the issue of transparency regarding SDG&E’s WiNGS Planning model in our opening comments and called for an ACI to remedy the issue.³⁹

The ACI issued for this Section is SCE/SDG&E 23-03 PSPS and Wildfire Risk Trade-Off Transparency. We provide comments on this ACI, above.

Section 7. Wildfire Mitigation Strategy Development, Subsection 7.2 Risk Informed Framework – The ACI is likely to result in multiple divergent methods, and the ACI does not result in operationalizing best practices.

Similar to our comments above, GPI recommends strengthening content in the Risk Informed Framework summary and strength sections of the SDG&E and SCE Draft Decisions.

The ACI issued for this section is the same for both SCE and SDG&E: SCE/SDG&E-23-05 Cross-Utility Collaboration on Best Practices for Inclusion of Climate Change Forecasts in Consequence Modeling, Inclusion of Community Vulnerability in Consequence Modeling, and Utility Vegetation Management for Wildfire Safety. We suspect that issuing this ACI to both SCE and SDG&E and its wording is meant to result in unified model development, which GPI has called for repeatedly in regards to each of the ACI topics in our comments on the Base WMPs, and at the Joint OEIS-CPUC Climate Adaptation Workshop.⁴⁰ GPI specifically called for developing a unified *consequence model*, and a unified definition of and model for egress including whether it includes *community vulnerability* aspects such as socioeconomic factors.^{41,42}

³⁹ GPI Comments on the 2023-2025 IOU WMPs, p. 33, 51

⁴⁰ Public Workshop on Safety Requirements to Address Increasing Wildfire Risk from Climate Change and Aging Infrastructure July 13-14, 2023.

⁴¹ GPI Comments on the 2023-2025 WMPs, page 50

⁴² GPI Comments on the 2023-2025 WMPs, page 64

GPI also recommended requiring the IOUs to benchmark and develop unified Vegetation Management methods, including customer outreach and fuels and slash management methods.⁴³

Similar to our concerns above, GPI fears that this ACI will at worst not result in any material changes, and at best will result in multiple new sub-models and/or modeling approaches that perpetuate utility wildfire risk modelling and risk-informed framework divergence. The ACI first requires the IOUs to participate in OEIS organized activities. GPI generally supports this, but we highlight that there is no reason to believe that attending workshops, the RMWG, and cross-IOU meetings will lead to action or result in model/method unification. The egress model is a perfect example. The modeling approaches were discussed at a RMWG meeting where GPI advocated for combining PG&E and SCE's egress models since they capture two facets of the same issue. The only concession was SCE offering to make their egress model publicly available to the other utilities – there was and has been no indication any utility will use SCEs model, nor that the IOUs are considering adopting PG&E's egress model once it is completed.

Based on the risk model alignment gridlock, GPI suspects that the ACI required “collaboration” could, and most likely will, result in disparate IOU models/methods with different planning standards. Further a “status update on any collaboration” is vague and weak, and will not result in operational outputs or outcomes. It is not enough to know that the IOUs attended OEIS activities and met to talk about model/method approaches. GPI strongly recommends that the ACI require functional outputs and outcomes, specifically that the IOUs develop a Joint-IOU modelling approach for each of these topics and a Joint-IOU methodology for Utility Vegetation Management for Wildfire Safety, and present the models and methods in the 2025 WMP Updates.

Section 7. Wildfire Mitigation Strategy Development, Subsection 7.3 Wildfire Mitigation Strategy ACIs should be updated to drive model alignment and/or apply to all IOUs.

GPI urges updates to the section summary, maturity survey, and strengths discussion in order to improve the OEIS public WMP evaluation record, clarify plan weaknesses, and better substantiate the ACIs. We also request updates to the maturity survey summary to parallel other

⁴³ GPI Comments on the 2023-2025 WMPs, page 20-21

maturity survey sections – namely reporting the minimum/limiting values and summarizing the most advanced survey responses.

SCE is issued SCE-22-XX Effect of Fire Suppression on Wildfire Spread and Consequence Modeling. This ACI errs by singling out SCE for not including fire suppression in their fire spread and consequence models. SDG&E’s Base WMP includes fire suppression as an input to their “Financial Impacts” WiNGS models, which includes the cost of suppression activities should a fire occur.⁴⁴ They later list “availability of suppression resources” as one of “several factors “... not included in SDG&E’s current models or model validation process ...”⁴⁵ In response to SDG&E-22-05 Fire Suppression Considerations, SDG&E refers to the RMWG and lack of current best practices. All other references to fire suppression in the Base WMP address fire suppression activities and suppression planning. SDG&E does not currently include fire suppression in wildfire spread and consequence models.

The Draft Decision also errs by suggesting SDG&E and SCE sufficiently addressed SDG&E-22-05, given that no material progress has been made, or minimally no updates have been filed documenting discussions or model development planning. While the RMWG did discuss Suppression modeling on May 10, 2023, after the Base WMPs were filed, this should only trigger a continuation of SDGE-22-05. A one-time RMWG discussion that has no written record and the current lack of formal documentation on IOU progress should not pass for an IOU sufficiently addressing “required progress thus far,” and is insufficient to justify passive progress monitoring for ACI 22-05.^{46,47}

Neither SCE or SDG&E have adequately addressed ACI 22-05 nor included and/or reported on their method for including fire suppression in their fire spread and consequence models. It is inappropriate to both drop ACI 22-05 from the IOU reporting requirement and issue a new fire suppression requirement (SCE-23-06) to SCE alone. GPI recommends closing ACI 22-05, eliminating ACI SCE-23-06, and issuing an updated fire suppression ACI that applies to all

⁴⁴ SDG&E 2023-2025 Base WMP, p. 56, 71

⁴⁵ SDG&E 2023-2025 Base WMP, p. 99

⁴⁶ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. A-8

⁴⁷ OEIS 2023 Draft Decisions on SDG&E 2023-2025 WMP, p. A-10

IOUs. The new fire suppression modeling ACI should require the IOUs to develop and/or adopt (e.g. Technosylva model) a Joint-IOU fire suppression model, a plan for model development and integration into existing consequence models that includes a timeline, milestones, and reporting deadlines concurrent with annual WMP Updates.

SDG&E is issued ACI SDGE-23-06 Demonstration of Proper Decision Making for Selection of Undergrounding Projects. SCE is issued a similar ACI SCE-23-09 Hardening Severe Risk Areas in Section 8. Both ACIs address the same issue: "... does not provide adequate analysis of alternative mitigation plans and instead defaults to undergrounding," and "does not perform adequate analysis of alternate mitigation plans and instead defaults to undergrounding."^{48,49} GPI directly addressed this issue in our Opening Comments on the Base WMPs, and recommended requiring that the IOUs develop alternate risk mitigation portfolios that evaluate undergrounding and other mitigations, such as covered conductor, on a level playing field.⁵⁰ Our recommendations filed in May 2023 directly align with the August 2023 Draft Decision recommendations to analyze alternate mitigations for locations scoped for undergrounding. GPI also called for a more comprehensive cost-benefit assessment of undergrounding in our Opening Comments on the IOU Base WMPs.⁵¹

GPI supports ACIs SCE-23-09 and SDGE-23-06. We recommend placing these in the same section since they address a parallel issue. More importantly, we recommend updating the ACIs to contain the same language – they currently issue nearly the same requirements, but with inconsistencies, although all components are relevant to both IOUs.

Section 8.1 Grid Design Operations and Maintenance format and ACI recommendations

GPI appreciates the additional discussion provided in WMP Strength summaries. We recommend expanding discussions in SCE and SDG&E's plan targets/objectives including relating these plan elements to previous years' achievements and the Maturity Survey results per our suggestions above.

⁴⁸ OEIS 2023 Draft Decisions on SDG&E 2023-2025 WMP, p. 80

⁴⁹ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 88

⁵⁰ GPI Comments on the 2023-2025 WMPs, pp 68-69

⁵¹ GPI Comments on the 2023-2025 WMPs, p 72

SCE and SDG&E are both issued ACI Continuation of Grid Hardening Joint Studies (SCE-23-07 and SDGE-23-08). We support this ACI. GPI filed comments specifically recommending more detailed undergrounding effectiveness and impacts that include those listed in the ACI.⁵² This includes “remaining risk from secondary or service lines” that GPI recommends through our statement on vegetation management of residual OH assets.⁵³ It also includes “failure points of underground equipment,” which GPI highlighted as “increased distribution system footprint and complexity” and “system lifetime repair costs.”⁵⁴ The ACI also requires reporting on “cost or deployment maximization efforts,” which GPI specifically raised regarding “distribution system planning alignment.”⁵⁵

Continuation of Grid Hardening Joint Studies (SCE-23-07 and SDGE-23-08) specifically states:

The IOUs’ joint lessons learned on undergrounding applications. This must include use of resources to accommodate applicable expansion of undergrounding programs, any new technologies being applied to undergrounding, and cost or deployment maximization efforts being used.⁵⁶

GPI recommends editing the ACI to eliminate language that assumes expansion of undergrounding programs. Specifically:

The IOUs’ joint lessons learned on undergrounding applications. This must include use of resources to accommodate applicable acceleration of undergrounding programs expansion of undergrounding programs, any new technologies being applied to undergrounding, and cost or deployment maximization efforts being used.⁵⁷

GPI also recommends adding language to the ACI that ensures the IOUs will operationalize the findings. Simply reporting on lessons learned may be insufficient to ensure that findings are timely implemented. The ACI should require lessons learned to include milestones and timelines for implementation.

⁵² GPI Comments on the 2023-2025 WMPs, p 70-72

⁵³ GPI Comments on the 2023-2025 WMPs, p 71

⁵⁴ GPI Comments on the 2023-2025 WMPs, p 70

⁵⁵ GPI Comments on the 2023-2025 WMPs, p 71

⁵⁶ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 87

⁵⁷ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. 87

GPI supports SCE-23-08 Vibration Dampers Retrofit, and SCE-23-11/SDGE-23-12 Covered Conductor Installation. GPI initiated the ACI on Vibrational Dampeners in 2022 as the first stakeholder to recommend that “All IOUs should report on how they will address Aeolian vibration wear and tear on CC ” and was directly recognized for this contribution in the 2022 Draft Decisions.^{58,59,60} SCE-23-08 and its objective to address ongoing CC aeolian vibration dampener retrofits is a continuation of the 2022 ACI and SCE-23-11/ SDGE-23-12, addressing other CC-specific failure modes, is an outgrowth of this recommendation that GPI continues to support.

GPI also supports SDGE-23-09 New technologies evaluation and REFCL implementation. GPI recommended that SDG&E and PG&E “should actively advance their REFCL Pilot programs to yield timely results.”⁶¹ Our comments stated “PG&E and SDG&E are far behind in their REFCL assessment in comparison to SCE,” lay out the evidence from the 2022 and 2023 WMPs, and is paraphrased in the ACI stating: “SDG&E has not moved forward with piloting REFCL ...”⁶² Our comments specifically called for a REFCL specific ACI:

An ACI should stipulate a reporting requirement for REFCL feasibility studies for these two IOUs. Reporting should require an update, both quantitative and qualitative, regarding the current state of REFCL feasibility studies that include, but are not limited to cost estimates, eligible installation locations (substations and circuit basis), associated line miles that could be protected by REFCL installations, accompanying overhead system hardening portfolios (e.g. SCE’s CC++/REFCL), and whether the locations are scoped for undergrounding. If PG&E and SDG&E cannot adequately justify their decisions to sideline REFCL they should be required to develop a plan to expand feasibility and pilot studies.⁶³

The Draft Decision ACI SDGE-23-09 includes our recommendation to provide an update on REFCL evaluation progress and/or a justification of why it is not feasible. GPI recommends adding specificity to this ACI per our recommendations in our Base WMP Opening Comments in order to promote a high quality ACI response.

⁵⁸ GPI Comments on the 2022 WMP Updates, p. 15

⁵⁹ Final Decision on SCE WMP 2022 Update, p. 13

⁶⁰ Final Decision on SDG&E WMP 2022 Update, p. 24

⁶¹ GPI Comments on the 2023 WMP Updates, p. 77

⁶² GPI Comments on the 2023 WMP Updates, p. 77

⁶³ GPI Comments on the 2023 WMP Updates, p. 79

GPI appreciates the addition of ACI SDGE 23-10 Early Fault Detection Implementation. We are especially supportive of the requirement to analyze the use of “EFD in combination with other grid hardening efforts.” We recommended the need to evaluate mitigation combinations or portfolios in our opening comments. GPI discussed issues associated with current risk mitigation effectiveness assessments in our opening comments, including that undergrounding is an OH system replacement with new equipment while many OH system mitigations are piecemeal solutions measured against an ageing baseline system.⁶⁴ This is comparing apples to oranges. For the Draft Decision, GPI recommends adding an ACI that requires IOUs to analyze the combined effectiveness of holistic OH system hardening, maintenance, and replacement, and situational awareness mitigations as comprehensive wildfire mitigation packages or portfolios.

SDGE-23-13 QA/QC for inspections addresses the use of drones to conduct QA/QC for Detailed Inspections. GPI supports this ACI and the need for SDG&E to address the discrepancy between other utilities utilizing drones as complementary inspection methods not QA/QC purposes. GPI highlights that Drone image collection that is processed by either SMEs or Machine Learning Models include errors. ML models should not be assumed to be infallible or even necessarily better than SME inspections unless and until the model is validated. The OEIS has rightfully established a 95 percent QC rate for inspections in order to ensure the work is done right the first time and system risk is not left unaddressed. It follows that SDG&E must first validate the ability for Drone images processed by either a SME or a Machine Learning model to serve as a QA/QC assessment capable of identifying 95 percent or better inspection accuracy. For example, if the ML image processing model is only 85 percent accurate then this is not a suitable tool to determine whether inspections are 95 percent accurate. GPI recommends requiring that SDG&E validate its use of Drone images for QA/QC assessment regardless of whether it is reviewed by a SME or ML model, and report on the results.

SCE-23-12/SDGE-23-14 Asset Maintenance and Repair Maturity Level Growth addresses proactive maintenance informed by asset usage. GPI raised the need for transparency into Utility standards for proactive asset replacement early on in our 2020 WMP Comments.⁶⁵ At the June

⁶⁴ GPI Comments on the 2023 WMP Updates, p. 64-68

⁶⁵ GPI Comments on the 2020 WMPs, p. 19

13-14 CPUC/OEIS Climate Adaptation workshop we also questioned the utilities on the impacts of increasing distribution grid stress (electrification and heat) on asset failure rate and the intersection with ignition and wildfire risk.⁶⁶ We strongly support the ACIs in regards to both estimating equipment service life reduction based on asset usage and environmental conditions, as well as discussing how maintenance programs will account for asset usage. GPI recommends updating the SCE and SDG&E ACIs on Asset Maintenance and Repair Maturity Level Growth to include the same Required Progress items.

We appreciate the addition of SCE-23-13 Addressing Backlogged Work Orders and SCE-23-14 Modification of Work Order Due Dates Based on Risk Assessment. GPI was first to identify the issue of utility “field safety reassessments,” inefficient processes associated with reassessing existing work tags, and the presence of backlogged work orders in our 2021 WMP comments.⁶⁷ We appreciate the ongoing due diligence to uncover the extent of the issue and remedy this problem.

Section 8.2 Vegetation Management and Inspections ACI

GPI recommends mentioning SDG&E’s progressive fuels and slash recycling approach, which totals upwards of 55 percent of all wood debris, Section 8.2.3 on strengths.⁶⁸ Their approach and reporting are the most proactive and transparent of the IOUs, and constitutes the current best practices above and beyond minimum required fuels and slash management methods.^{69,70} Their efforts align with California State fuels management efforts including SB 859 addressing forest management products and biomass applications and the California Governor’s Office efforts to establish Sustainable Woody Biomass Industry Development in California.^{71,72,73} Barring adding maturity survey questions and standards for fuels and slash removal and end-point uses, the

⁶⁶ Public Workshop on Safety Requirements to Address Increasing Wildfire Risk from Climate Change and Aging Infrastructure July 13-14, 2023.

⁶⁷ GPI Comments on the 2021 WMP Annual Updates, p. 17-18

⁶⁸ SDG&E 2023-2025 WMP, p. 273

⁶⁹ GPI Comments on the 2021 WMP Annual Updates, p. 15

⁷⁰ GPI Comments on the 2023-2025 SMJU WMPs, p. 47-49

⁷¹ SB 859 Public resources: greenhouse gas emissions and biomass. (2015-2016)

⁷² California Governor’s Office. Sustainable Woody Biomass Industry Development in California. (2022) <https://static.business.ca.gov/wp-content/uploads/2022/02/GO-Biz-Interagency-Biomass-Market-Development-Framework.pdf> (Accessed May 13, 2023)

⁷³ GPI Comments on the 2023-2025 IOU WMPs, page 16-18

WMP Draft Decisions should minimally recognize advancements in these WMP activities as they directly align with other state initiatives to manage wildfire risk and the impacts of wildfire mitigation.

PG&E's 2023-2025 Base WMP Revision Notice notes that "forest health measures derived from remote sensing are more well established and PG&E could have incorporated relevant, public, forest health data sets."⁷⁴ It specifically cites the USDA Forest Service Aerial Detection Survey, which GPI references in comments on the 2023-2025 IOU and SMJU Base WMPs.^{75,76} GPI recommends adding similar statements in the SCE and SDG&E Base WMP Decisions, because these data sets and tree mortality trends captured therein can help inform vegetation health trends that may require adjustments to hazard tree removal activities and workforce.⁷⁷

SCE/SDGE-23-17 Continuation of Effectiveness of Enhanced Clearances Joint Study. GPI supports this ACI and recommends enhancing the ACI by requiring the IOUs to specifically assess the effectiveness of enhanced clearances combined with other mitigations such as EPSS. PG&E has an EPSS-specific vegetation management effort that is intended to reduce the likelihood of outages. They should report on the effectiveness of this approach in the Enhanced Clearance Joint Study, as its success could improve reliability when EPSS or similar system settings are used as an interim or backup mitigation. We also recommend requiring that the IOUs establish a plan for operationalizing results and recommendations of the Joint Study and third-party contractor analysis that constitute improvements over their current methods. These plans should include trackable milestones (targets and objectives) and timelines.

⁷⁴ Revision_Notice_for_PGE's_20232025_WMP, p. 23

⁷⁵ GPI Comments on the 2023-2025 IOU WMPs, p. 6

⁷⁶ GPI Comments on the 2023-2025 SMJU WMPs, p. 47

⁷⁷ GPI Comments on the 2023-2025 SMJU WMPs, p. 47-49

GPI’s written and oral Comments on IOU WMPs have directly contributed to ACIs issued in the Draft Decisions on SCE and SDG&E’s 2023-2025 Base WMP. Stakeholder comments also contribute to the justification basis for Draft Decisions, enrich the WMP public record, can encourage change at the LSE-level, and can initiate long-term ideation that is not yet formally adopted or formalized in the record.

Throughout our comments, GPI provides numerous references to past comments and recommendations that directly relate to ACIs in the Draft Decisions on SCE and SDG&E’s 2023-2025 IOU Base WMPs. Based on this record we request updates to the SCE and SDG&E Draft Decision Appendix C that recognize our direct influence on WMP and ACI development in terms of initiating, concurring with, and advancing ACIs. GPI also respectfully requests that the Draft Decisions directly cite GPI and other stakeholder comments where they relate to the summaries, discussions, and ACIs. GPI’s 2021 IOU WMP comments first identified PG&E’s work-tag date adjustments, reinspection, and backlogs issues, which has become a critical WMP deficit. However, this issue was not entered into a WMP Draft Decision until 2022, and GPI was not cited as the initiator. Adding a discussion of stakeholder input in the Draft Decisions, or minimally citing stakeholder comments where they relate to OEIS ACI orders will enrich the public record and give due credit to external stakeholder reviews. At the bare minimum, GPI requests to be added to the SCE and SDG&E 2023-2025 Base WMP Decisions, Appendix C as contributing to ACI ideation on Risk Methodology and Assessment, Wildfire Mitigation Strategy Development, Grid Design, Operations, Maintenance, and Vegetation Management.

The Draft Decisions Appendix C. states: “Energy Safety found the following stakeholder comments to concur with topics already included in Energy Safety’s findings ...”⁷⁸

Interestingly, because of the fact that the public and stakeholders are required to provide the first recorded recommendations and public stakeholders are frequently tapped to serve as panelists and lead workshop discussions, it could just as easily be stated and substantiated that stakeholders found Energy Safety comments to concur with topics already included in our findings. The Draft Decision statement further implies that stakeholders know what ACIs OEIS will issue in the annual Draft Decision and that our contributions only amount to parroting or concurring with these findings, though in many cases the first written records of these positions

⁷⁸ OEIS 2023 Draft Decisions on SCE 2023-2025 WMP, p. A-0

can be found in stakeholder comments. With a 4-year and growing record of WMP filings and recorded workshops, ideation generation and development is undoubtedly a collaborative result between the state, stakeholders, and the public. GPI respectfully requests that stakeholder input be valued as such and appropriately cited in WMP Decisions.

In addition to informing the ACIs, stakeholder comments contribute to the justification basis for Draft Decisions, enrich the WMP public record, can encourage change at the LSE-level, and can initiate long-term ideation that is not yet formally adopted or formalized in the record. While stakeholder comments contribute substantially to WMP ideation, tracking the direct result of comments on ideation evolution, including generation, development, and communication, is not always straight forward. For example, GPI discussed risk modeling gaps in our opening comments on the 2023-2025 IOU Base WMPs and recommended the IOUs perform a gap analysis of their risk modeling.⁷⁹ During one of our RMWG discussions SCE mentioned considering a third-party gap analysis of their risk modeling. However, since RMWG discussions are not recorded they are not entered into the formal record and therefore cannot be substantiated.

In another example GPI continues to advocate for vegetation management fuels and slash removal in order to reduce fuels in proximity to utility ROWs, facilitate customer relationships and property access, and generate revenue via a sustainable wood product industry in accordance with state policy and initiatives.⁸⁰ Despite not being a formally required WMP element or ACI, SDG&E and Liberty have made progress on this initiative through direct quantitative and qualitative reporting in their WMPs and by actively diverting VM woody debris to recycling, composting, and other end-use facilities. The impact of stakeholder comments on WMP development is not always directly traceable and, in some cases, it may take time for stakeholder comments and recommendations to gain traction, rise to the top of the WMP priorities, or be mandated at the state level. However, this does not negate the value of the breadth of input that stakeholders provide.

⁷⁹ GPI Comments on the 2023-2025 IOU WMPs, p. 27-31

⁸⁰ GPI Comments on the 2023-2025 IOU WMPs, p. 16-18

Stakeholder comments also enrich the public record by either challenging, supporting, or encouraging further development of state decisions. The rich record of support and dissent that these comments provide and the change they enact shows that state decisions affecting Californian lives are not made without welcoming and seriously considering public input. GPI cautions that sidelining the value of these contributions could affect the ability of this critical public role to support the WMP development process.

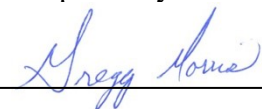
In addition to open-ended comment opportunities, GPI welcomes “Ruling” type documents that request public/stakeholder responses on questions or specific WMP topics that OEIS would appreciate targeted input on. GPI is accustomed to providing comments to the CPUC that directly address pressing and challenging issues. Targeted responses from the breadth of stakeholder participants can create a rich record of strengths and weaknesses on specific issues. Guiding questions and subsequent opening and reply responses allow state employees and stakeholders to review and refer back to topical arguments and debate that is entered into the formal record. This record informs the public that the issue was debated and pros and cons were weighed in order to arrive at a final decision, action, or requirement.

Conclusions

We respectfully submit these comments and look forward to reviewing future wildfire mitigation plans and related filings. For the reasons stated above, we urge the OEIS to adopt our recommendations herein.

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Respectfully Submitted,



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