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Carla Peterman
Senior VP of Strategy
and Regulatory Affairs

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California Wildfire Safety Advisory Board
300 Capital Mall, 5th Floor
Sacramento, CA 95814

SUBJECT: Southern California Edison's Comments on the California Wildfire Safety Advisory Board's Draft Recommendations on the 2021 Wildfire Mitigation Plan Updates for Large Investor-Owned Utilities

Dear Chair, Vice Chair, and Board Members,

INTRODUCTION

Pursuant to the California Wildfire Safety Advisory Board's (Board or WSAB) Mission, Work Plan, and Review Principles for the Wildfire Mitigation Plans (WMPs), Southern California Edison (SCE) hereby submits its comments in response to the Board's April 1, 2021 Draft Recommendations on the 2021 Large Investor-Owned Utilities (IOUs) WMP Updates (Draft Recommendations).

SCE agrees with many aspects of the Board's Draft Recommendations, especially their spirit of collaboration. Wildfires are a threat to the entire state and a collaborative approach to addressing this threat is imperative. SCE provides comments on a few key issues including vegetation management (VM), system hardening, asset inspections, and stakeholder engagement. As discussed in more detail below, the Board's Final Recommendations to the Wildfire Safety Division (WSD) should clarify that recommendations that modify or add requirements should be considered for future WMP streamlining and improvement efforts. They should not be used for the 2021 WMP Update review as they cannot be accommodated in the remaining review period.

THE WSD SHOULD CONVENE WORKSHOP(S) TO DISCUSS WSAB'S DRAFT RECOMMENDATIONS REGARDING THE WMP PROCESS

The WSAB recommends that IOUs should consolidate presentation of information in their WMPs and include visual aids, explain how information will be used to determine the preferred course of action, and improve the data transparency and public availability of performance metrics.[1] SCE appreciates WSAB's efforts to improve the WMP process.

SCE welcomes opportunities to collaborate with the WSD, stakeholders, and the other utilities in improving the utilities' focus on *wildfire* risk reduction. In fact, SCE has previously recommended changes to streamline the WMP Guidelines, schedule, reporting requirements, and recommended the WSD conduct workshops to rationalize the requirements. The current WMP process includes extensive requirements that go beyond wildfire mitigation issues and extend into other aspects of utility operations and planning not necessary to evaluate a utility's wildfire mitigation efforts. The compressed timelines–including the requirement to produce year-end data in early February – divert key resources from the critical tasks of developing and operationalizing wildfire mitigation activities to meet WMP and WMP-related requirements that are not associated with wildfire mitigation or the statutory scope of WMPs. Nevertheless, SCE notes that modifications to the WMP process cannot and should not be applied to the WSD's approval of the IOUs' current WMPs at this stage of the process,[2] as SCE has met the WMP Guidelines as written. The WSD should limit the scope of issues to the statutory requirements of PUC Section 8386, as modified by SB 901 and AB 1054, related to the WMPs. SCE recommends that the WSD conduct workshops to streamline the 2022 WMP Guidelines, rationalize the reporting requirements, and assess changes to the overall schedule after the 2021 WMP Update approval.

SCE SUPPORTS TRANSPARENCY AND COLLABORATION ON ITS RISK MODELS SUBJECT TO APPROPRIATE DATA PROTECTIONS

The WSAB states it did not "find enough information about the modeling methods and assumptions to complete a thorough review and provide meaningful input" in the IOUs' WMPs[3] and raises concerns "that the assumptions, algorithms, and outcomes of the models are not being closely and transparently reviewed by independent experts."[4] To address these concerns, the WSAB recommends the WSD evaluate the sufficiency of the modeling outcome information provided by the IOUs, establish a scientific peer review process to evaluate the IOUs' models, and continue to explore options for developing a data access portal.[5] SCE supports increased collaboration with stakeholders and the scientific community to understand,

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[1] WSAB Comments at pp. 1-2.

[2] Under PUC Section 8389(b), WSAB's recommendations regarding the WMP are due to WSD "by June 30," supporting SCE's understanding that such recommendations should be incorporated in the WMP process the following year.

[3] WSAB Comments at p. 3.

[4] WSAB Comments at p. 4.

[5] WSAB Comments at p. 5.

compare, validate, and implement robust modeling methodologies, techniques, and algorithms. SCE is collaborating with other IOUs regarding modeling methods and documenting current modeling techniques. In addition to describing its risk models in Chapter 4 of its 2021 WMP Update, SCE has also provided WSD an in-depth overview of its risk models. As such, SCE has met the WSD's requirements in describing its risk models.

SCE also supports the creation of a state-wide, centralized data platform and already makes data from its weather stations and HD cameras publicly available. Increased data sharing will provide an opportunity to build an open scientific community and make research finding and academic development more accessible to the utilities to inform their operations. Nevertheless, what data is shared and in what form should be determined through a collaborative process with the utilities and third-party stakeholders. Some of the data requested may present physical and cybersecurity issues if disclosed and therefore should be subject to restricted access. For example, SCE recommends that asset-specific risk assessment modeling data be excluded due to Critical Energy/Electric Infrastructure Information (CEII) requirements and federal critical infrastructure protection protocols as mentioned by the Board.

In addition, certain advanced weather modeling and fire modeling information should not be made available to the public, because some of this information is the intellectual property of SCE's vendors, such as Atmospheric Data Solutions, who helped SCE develop its Live Fuel Moisture model. Other information, such as model data, has been customized for SCE's service area and is proprietary. SCE also has liability concerns regarding anyone outside of SCE making decisions, recommendations, assumptions, and conclusions based on SCE's weather and fire modeling information. As mentioned previously, communities and first responders in SCE's service area already have access to data from SCE's weather stations and HD cameras. SCE also makes GIS maps with circuit-specific information about potential or active Public Safety Power Shutoff (PSPS) events available to emergency managers to support their logistical planning and response. SCE is willing to share information about future scientific partnerships and collaborations if such information is publicly available or if SCE receives consent from our vendors.

The WSAB also recommends that IOUs should "explain how they evaluate errors, such as line strikes, that occur during vegetation removal or repair and maintenance, and how these errors are factored into their risk assessment."[6] WSAB should revise this recommendation to acknowledge that this is not a current WMP requirement and thus should be assessed for inclusion in the 2022 WMP Update process. Notwithstanding, errors that occur during vegetation removal, repair or maintenance are not included in SCE's risk model except in the case where they cause an outage. The number of these events is very small and not likely to have an effect on the model outputs. However, SCE does provide training and issues bulletins to crews to correct these errors.

[6] WSAB Comments at p. 5.

SCE'S APPROACH TO TREE REPLACEMENT IS APPROPRIATE

The WSAB states that "SCE does not appear to have a tree replacement program" but acknowledges that SCE "obtains all the necessary environmental permits before initiating vegetation management activities, deploys environmental specialists, conducts field monitoring, and provides annual training for contractors in environmental regulations."[7] SCE does provide tree replacement services as part of its Hazard Tree Management Program. In addition, SCE offers replacement for trees removed as part of its line clearing program, on a case-by-case basis. Further, SCE has a Right Tree Right Place program which is an industry-accepted approach to disseminating information about tree and landscaping selection.[8] Through this program, SCE encourages that only appropriately sized vegetation at maturity is selected when making planting choices, whether replacement or initial planting, to limit encroachment on electrical assets.

COMMENTS ON VEGETATION MANAGEMENT DRAFT RECOMMENDATIONS

The WSAB first recommends the WSD consider "the impact of the IOUs' vegetation management and tree removal practices on the environment, climate change, and wildfire risk…[and] whether the IOUs consulted with ecologists to plan vegetation management practices to reduce environmental impact."[9] SCE already considers the impact of its vegetation management practices on the environment and wildfire risk and thus has no objection to this recommendation. SCE's current processes require delaying mitigation until SCE has completed extensive environmental review/permitting except in emergency conditions. Additionally, SCE adheres to all applicable Federal, State, and local requirements when conducting vegetation work. In light of the late stage of the 2021 WMP process, any additional requirement to describe how utilities take these factors into account should be assessed for inclusion in the 2022 WMP Guidelines, and not considered as a new requirement for the 2021 WMP Update.

The WSAB further recommends the WSD review notices of violation issued by other state agencies as they relate to utility vegetation management, requesting that the IOUs report any such notices in their WMPs, and consider coordinating with other state agencies and experts "to identify the most sustainable solution for all parties."[10] As noted above, SCE supports coordination between the WSD and other agencies to the extent possible where such coordination can facilitate compliance with VM requirements. However, it is not clear that notices of violation issued by other agencies would inform inter-agency coordination, particularly where each agency is tasked with applying the unique governing standards of its agency to the particular facts presented. Furthermore, the WSAB acknowledges it cannot comment on the merit of notices of violation.[11] It would be equally inappropriate for the WSD to

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[7] WSAB Comments at p. 6.
[8] For more information about the Right Tree Right Place program, please visit https://www.sce.com/sites/default/files/inline-files/SCE_RightTree_FAQ_2.pdf
[9] WSAB Comments at p. 8.
[10] WSAB Comments at p. 8.
[11] WSAB Comments at pp. 6-7.

give weight to notices of violation that may be in dispute or otherwise unresolved as to the alleged facts. Therefore, this recommendation should not be adopted.

The WSAB also recommends evaluating the need to improve IOUs' training programs for vegetation management contractors and increase the auditing and monitoring of vegetation contractors.[12] SCE has no objection to this recommendation. SCE firmly believes that the appropriate type of training delivered to the right audience is beneficial in improving both employee and contractor knowledge. As such, SCE has already conducted various forms of training for both employee and contractor resources to close identified gaps and, in early 2020, onboarded a training advisor to work with both employee and contractor resources to identify training that would benefit vegetation management practices as a whole. Regarding auditing and monitoring of vegetation contractors, SCE has a robust, in depth, oversight process to monitor the performance of our vegetation management contractors and address any performance challenges.

The WSAB further suggests the IOUs should "create a statewide database of tree species, traits, growth rates, morphological characteristics, and locations along environmental gradients."[13] SCE does not believe this undertaking would be beneficial for vegetation management given that each IOU has expertise in this area and vegetation growth conditions can vary significantly based on latitude. Even if such a database were developed, it would be impractical and burdensome to include the level of detail recommended by the WSAB, including tracking of information by tree species. SCE's tree inventory is categorized primarily at the genus level and includes approximately 100 different genus types (though some trees are identified at sub-species level). As a result, SCE takes into account the genus -- and not the species -- of trees when planning and performing its compliance trimming.

Finally, the WSAB recommends that IOUs explain vegetation management practices for Utility Defensible Space under utility rights-of-way and conduct a cost-benefit analysis comparing the benefits of low-growing shrubs versus clearance and chemicals.[14] The WSAB's proposal touches on aspects of SCE's Integrated Vegetation Management (IVM) Plan, which is in development.[15] In particular, SCE is developing programs and implementing new techniques to create utility-friendly plant communities that reduce wildfire risk, infrastructure and environmental impacts, and directly benefit the communities we serve. SCE is looking to further expand IVM by exploring the use of specialized methodologies, tools, and techniques such as herbicides, ruminant animals for right-of-way clearing, LiDAR and remote sensing, and tree growth regulators. At this point, a cost-benefit analysis of the IVM program may be premature as the program is still evolving. As SCE continues to pursue these activities to create sustainable rights-of-way, they will ultimately reduce the amount of vegetation management required and reduce the corresponding costs.

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[12] WSAB Comments at p. 8.
[13] WSAB Comments at p. 8.
[14] WSAB Comments at p. 8.
[15] *See* SCE 2021 WMP Update at p. 333.

SCE'S WORKFORCE TRAINING AND QUALITY CONTROL FOR INSPECTIONS ARE ADEQUATE

The WSAB expresses concerns about certain SCE worker qualifications for inspections. For example, the WSAB recommends that "SCE [should be ordered to] perform increased quality control for inspections that are completed by any worker with fewer qualifications than Qualified Electrical Workers, such as the Electric System Inspectors."[16] This recommendation is unnecessary because SCE's Electric System Inspectors (ESIs) must complete extensive training before they are qualified to perform inspections. Moreover, any hazards identified by ESIs under the inspection program are reviewed by Qualified Electrical Workers (QEWs). SCE's existing Quality Control (QC) program for inspections is comprehensive and assures that inspections, including those performed by ESIs, are conducted in accordance with program standards. The QC program reviews samples of the inspection data to provide reasonable assurance that the work performed is consistent with standards and codes. The program provides detailed regular data-driven feedback to the Overhead Distribution Inspection (ODI) management team that is used for continuous improvement. The conformance rate (i.e., the rate at which the QC inspector agrees with the findings of the ESI) is 96.4% since January 2020, when the current program started. In light of SCE's thorough ESI training program, QEW notification review, and robust QC process, the WSD should not require SCE to perform additional quality control for inspections.

COMMENTS ON SYSTEM DESIGN AND GRID HARDENING DRAFT RECOMMENDATIONS

The WSAB recommends that IOUs evaluate the risk involved in keeping idle lines or equipment energized versus disconnecting completely when not in use, for the IOUs to identify such equipment or lines and require their removal from service and explain any practices to de-energize idle lines in their WMPs.[17] SCE does not object to the recommendation that IOUs evaluate the risk involved in keeping idle lines or equipment energized as compared to disconnecting completely when not in use, but assumes that the WSAB is referring to overhead energized lines/equipment that are not providing electric service to a customer but are still being inspected and maintained so as not to create safety hazard. General Order (GO) 95, Rule 31.6 states:

> Lines or portions of lines permanently abandoned shall be removed by their owners so that such lines shall not become a public nuisance or a hazard to life or property. For the purposes of this rule, lines that are permanently abandoned shall be defined as those lines that are determined by their owner to have no foreseeable future use.

SCE's practice is to de-energize certain sub-transmission line segments, designate them out-of-service and continue to inspect and maintain until such time as a final determination can be made that the subject structures/wires or underlying land or rights-of-way have no foreseeable use, at which time plans are made to remove the facilities. For overhead distribution lines and

[16] WSAB Comments at p. 10.
[17] WSAB Comments at p. 10.

equipment, SCE has established guidelines to assess the value and necessity of said facilities in lieu of future electrical service need. In both instances, SCE complies with the above GO 95 rule and when it is determined that such overhead facilities have no foreseeable use, plans are made and executed to remove said facilities. SCE believes additional tracking and reporting of out-of-service facilities to WSD serves no useful purpose given that such facilities are inspected and maintained in keeping with programs already described in detail in the WMP; however, SCE is willing to discuss this topic should WMP workshops be convened.

The WSAB also requests that IOUs explain their protocols for workforce safety during removal, installation and repair of equipment, especially during the introduction of new technology or work practices.[18] The following are the processes that SCE has in place to help ensure the safety of the workforce when introducing new technologies.

1. Establish Standard Requirements for New Equipment: Construction and design standards are developed for new equipment. During the development process, various stakeholders (including training, construction, and safety) provide input to ensure that standards are comprehensive. Standards may provide recommendations to ensure workforce safety. For example, the covered conductor standards included the recommendation for covered conductor to be treated and worked on as bare conductor. Additionally, step-by-step instructions are included when installing additional hardware, including for splices and vibration dampers. These instructions help certify that work is done correctly and safely.
2. Develop Construction Methods for New Equipment: Subject matter experts in Engineering and Construction Methods collaborate to develop safe construction method protocols to facilitate the removal, installation, and repair of the equipment. Safety subject matter experts are included in the process as well.
3. Training: Various training documents are developed detailing construction and operation of equipment. Training documents are reviewed by multiple stakeholders, including Engineering, Construction Methods, and Safety, to ensure workforce safety is accounted for.
4. Construction: Field observations are conducted to verify workforce safety and identify opportunities for improvement. Personnel are coached and mentored. Additionally, all personnel must adhere to SCE's Accident Prevention Manual, which ensures various safety processes are in place.
5. Accident Prevention Manual: The Accident Prevention Manual contains rules and policies for maintaining workforce safety. It is SCE's policy that all rules and policies contained in the manual shall be complied with every employee. The manual is supported by field observations to confirm compliance and enforced by employee supervision.

WSAB recommends that IOUs "provide more detail about how they will ensure the workforce will become qualified, their training plans, including start, length of the training, etc."[19] This draft recommendation is overly broad as "workforce" could be inclusive of any or all team

[18] WSAB Comments at p. 10.
[19] WSAB Comments at p. 10.

members who initiate field work, team members who plan field work, team members who schedule field work, and/or team members who execute out in the field. Additionally, SCE supplies contractors with training objectives, however, it is the responsibility of the contractor to adequately train its crews. Training details (such as length and start times) may depend on the targeted population. Safety and regulatory training are tailored to each job class and per the requirement(s) outlined. Some training requires compliance training done at a regular cadence, while other training maybe introductory for all new hires. Some training is done after promotion or as a part of an apprenticeship. We also conduct ad hoc training due to litigation or prevention. The information that SCE provided in its 2021 WMP Update regarding workforce training is sufficient for meeting the purposes of the WSD's guideline requirements, and any additional detail in this area for the purposes of future WMPs would be unnecessarily burdensome.

In addition, WSAB raises safety concerns about GO 95 exempt equipment (overhead lines and equipment that were built prior to GO 95 being adopted in 1941)[20] and recommends that IOUs provide information to the WSD about them.[21] SCE regularly patrols, inspects, and maintains its power lines and assets, including those built prior to the adoption of GO 95. For example, to help ensure that its system operates safely and reliably, SCE inspects its transmission lines in accordance with NERC requirements for vegetation management (Reliability Standard FAC-003) on established intervals. Additionally, SCE patrolmen regularly inspect transmission lines to identify potential line problems such as reduced span clearance, tower or line hardware problems, or other conditions of concern. SCE also complies with maintenance and inspection requirements for transmission lines including NERC Reliability Standard FAC-501-WECC-2, CAISO Transmission Control Agreement Appendix C, CPUC GO 95 Rule 31.2, and CPUC GO 165 Section IV. SCE also performs supplemental inspections of its overhead lines located in its HFRA in accordance with its WMP. These regular patrols and inspections serve as additional means to monitor lines for potential safety and reliability concerns. Accordingly, SCE finds no reason to require additional reporting requirements; these assets are already included in, and subject to, SCE's ongoing asset management, inspection, and remediation activities.

COMMENTS ON PUBLIC SAFETY POWER SHUTOFF DRAFT RECOMMENDATIONS

The WSAB recommends having the IOUs describe how they use data collected when investigating near misses during and after a PSPS event to evaluate their mitigation efforts.[22] Although SCE does not currently use this data to evaluate its mitigations, it may take near misses in the context of PSPS patrols into consideration for future evaluations.

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[20] SCE understands GO 95 Rule 12.3 to be applicable to overhead distribution and transmission lines constructed prior to July 1942, which for today would mainly impact certain transmission lines comprised of support structures, wires, insulators, hardware, etc. The wire-to-wire and wire-to-ground/object clearances adopted in 1942 were, in many cases the same or similar to clearances specified in preceding GOs 64 and 64A. Further, although engineering and design of overhead tower lines has evolved and progressed since the issuance of GO 64 in 1928, SCE continues to evaluate and inspect these vintage structures and has ongoing plans to refresh and replace these lines or segments of these lines

[21] WSAB Comments at p. 11.

[22] WSAB Comments at p. 13.

The WSAB also recommends that IOUs conduct independent short and long-term studies that evaluate mitigation practices to assess their effectiveness, focused on areas where mitigations have taken place and evaluating the data collected during patrols after a PSPS event.[23] SCE agrees with the importance of evaluating mitigation effectiveness, but cautions that it is too early to expect meaningful trends. SCE has described its efforts to evaluate the effectiveness of its WMP activities in mitigating wildfires in its response to Guidance-5. SCE has identified five categories of key portfolio-level effectiveness metrics (described in its response to Guidance-5 and in SCE's 2021 WMP Update) by which most of its wildfire mitigation activities may be evaluated. These effectiveness metrics proposed by SCE are:

- CPUC reportable ignitions in HFRA (total and by key drivers such as CFO, wire-to-wire, Tree Caused Circuit Interruptions, equipment failure)
- Faults in HFRA (total and by key drivers mentioned above)
- Wire down incidents in HFRA (total and by key drivers mentioned above)
- Number of customers and average duration of PSPS events
- Timeliness and accuracy of PSPS notifications

SCE is developing analytical approaches to appropriately evaluate the trends of these effectiveness metrics after normalizing the field data for weather and other factors that are outside the utility's control and expects to include these findings in its 2022 WMP Update.

COMMENTS ON EMERGENCY PLANNING AND COMMUNICATIONS DRAFT RECOMMENDATIONS

WSAB recommends that IOUs explain what metrics were used in the 2021 WMP Update to evaluate the effectiveness of their stakeholder engagement efforts and inform what changes were made between 2020 and 2021.[24] SCE described its efforts to evaluate the effectiveness of stakeholder engagement as part of its Customer Research and Education initiative (DEP-4) in its 2021 WMP Update Supplemental Filing on Feb. 26. This initiative entails "surveying stakeholders...to collect customer insights and serves as a feedback mechanism for other WMP activities," specifically Customer Education and Engagement (DEP-1.2), Customer Education and Engagement - Marketing Campaign (DEP-1.3), and Customer Care Programs (PSPS-2). SCE has specified targets for DEP-1.2 (number of virtual community meetings), DEP-1.3 (PSPS awareness percentage), and DEP-4 (number of surveys). Further, SCE aims to receive a specified number of completed responses from residential and business customers for the PSPS Tracker and In-Language Wildfire Mitigation Communications Effectiveness Pre/Post surveys.[25] SCE has provided a copy of the survey results in its 2021 WMP Update, as well as program plan performance for 2020 and targets for 2021 for DEP-1.2, DEP-1.3, and DEP-4.[26]

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[23] WSAB Comments at p. 13.
[24] WSAB Comments at p. 15.
[25] *See* 2021 WMP Update Supplemental Filing, Appendix A at p. A7.
[26] *See* 2021 WMP Update, Section 5.3 Plan Program Targets at pp. 124-126.

These initiatives are valuable tools for stakeholder and customer interaction and utilize surveys to inform as to their effectiveness in driving customer awareness and acceptance and to highlight potential improvement opportunities for messaging and outreach tactics. SCE also tracks outreach effectiveness using several industry standard measures such as tracking visits to the website and in-language webpages, click-thru rates on digital and search impressions, delivered mail, email open rates and related click through rates, and other quantitative metrics.

As to changes made between 2020 and 2021, in its 2021 WMP Update, SCE described how customer/stakeholder feedback in 2020 led to additional targeted efforts to provide resiliency and backup power during de-energization events (PSPS and WMP implementation) including expansion of its Critical Care Battery Backup program and continuation of its Community Resiliency Equipment Incentive pilot.[27] Additionally, SCE describes how, in 2021, it is targeting engagement efforts on communities heavily impacted by PSPS and actively evaluating and refining its stakeholder coordination and customer outreach approaches based on feedback on 2020 events. To this end, SCE has instituted a formal feedback process to help us incorporate specific critiques and recommendations. SCE is also continuing to develop new ads, evaluate refinements to marketing activities, and conduct customer research. These efforts demonstrate that SCE has considered customer/stakeholder feedback in developing its 2021 WMP Update and is improving its processes to continually improve this focus area.

CONCLUSION

SCE appreciates the opportunity to submit its comments on WSAB's Draft Recommendations and proposes that the WSAB revise its final recommendations taking into consideration its comments herein.

If you have any questions, or require additional information, please contact me at carla.peterman@sce.com.

Sincerely,

//s//
Carla Peterman
Senior Vice President, Strategy and Regulatory Affairs
Southern California Edison

cc: Service List for R.18-10-007
wildfiresafetydivision@cpuc.ca.gov
CALFIREUtilityFireMitigationUnit@fire.ca.gov

[27] *See* 2021 WMP Update, Table SCE 4-1 that summarizes lessons learned in 2020 and changes SCE incorporated in its 2021 WMP Update.