

April 13, 2020

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Diane Fellman, Vice Chair
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Jessica Block, Board Member
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Christopher Porter, Board Member
Alexandra Syphard, Board Member

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

Dear Chair, Vice Chair, and Board Members,

INTRODUCTION

Pursuant to the California Wildfire Safety Advisory Board's (Board) 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 3, 2020 Draft Recommendations on the 2020 Utility WMPs (Draft Recommendations).

OVERVIEW

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 appropriate. However, as provided in more detail below, there are areas of the Draft Recommendations that can be clarified or refined. Accordingly, SCE offers comments below in categories corresponding to the Draft Recommendations.

SCE also respectfully requests that the Board clarify the desired timing for implementing its recommendations. Although the Draft Recommendations state, "These recommendations do not request that the utilities resubmit documents related to their 2020 WMPs. The Board intends that these recommendations be considered additive guidance in consideration of the 2021 WMPs currently under development" the recommended timing ranges from immediate, near term, mid-term, and long term. It would be helpful for utilities to know the time frames corresponding with these terms (i.e., "immediate" means the next WMP or update to WMP).

1: DEVELOPING AND TRACKING COMMUNITY ENGAGEMENT ACTIVITIES

A. SCE Has Provided Adequate Information to Track and Document its Outreach Efforts

SCE agrees with the Board that partnerships with local governments, Public Safety Partners (PSP) and other emergency officials for emergency planning and preparedness including before, during, and after Public Safety Power Shutoff (PSPS) events are essential for appropriate emergency planning and preparedness. SCE has conducted several informational meetings and resiliency workshops with stakeholders and partners throughout 2018 and 2019 to discuss SCE's wildfire mitigation efforts and PSPS protocols, and has documented information regarding these meetings.¹ In 2020, SCE is continuing its community outreach activities with local governments including additional engagements to understand and respond to Access and Functional Needs (AFN) customers. SCE is augmenting the documentation to also include questions, issues raised, and improvements suggested in the meetings. SCE is also developing documentation about how those issues and suggestions are reviewed by the company and the follow-up responses that were provided to the organization.

As mentioned by the Board, there are multiple proceedings addressing community outreach and engagement for PSPS events, and SCE has provided detailed information as part of ESRB-8 reports and in response to requests from the Commission and other parties. SCE has also provided details about its stakeholder engagement and outreach efforts being planned and formulated in Sections 5.3.6, 5.3.9 and 5.3.10 in its 2020-2022 WMP. SCE is open to providing additional details of its outreach and engagement efforts implemented in the previous calendar year as part of its future WMPs or annual updates. It should be noted, however, that engagement and outreach plans developed well before actual PSPS events necessarily cannot have the same level of details as those of historical activities because the specifics are often known closer in time to or after the events.

2: WORKING WITH LOCAL GOVERNMENT LIAISONS IN EMERGENCY SITUATIONS

A. SCE Has Provided Adequate Information to Demonstrate that it is Forming Close Partnerships with Local Governments in Emergency Situations

¹ See "R.18-12-005 - Southern California Edison Company's Second PSPS Progress Report (Amended) on the Implementation of De-energization Guidelines set forth in Appendix A of Decision 19-05-042- March 2020" for a listing of community meetings, Municipal Utility meetings, Local Public Affairs meeting with cities, City Council/Board of Supervisor presentations, community engagement forums, SCE EOC tours, and other stakeholder meetings held in 2019.

SCE agrees that close partnerships with, and information sharing protocols between, the utility and county emergency management agencies is important during PSPS conditions and events. Sections 4.4 and 5.3.6.7 of SCE's 2020-2022 WMP detail the robust protocols SCE has for information sharing during PSPS events. SCE prescribes to California's Standardized Emergency Management System that directs all emergency management and response coordination to occur through the county emergency management agencies. SCE agrees that city and county governments are responsible for meeting a wide range of local needs including identifying at-risk populations rapidly, including Medical Baseline customers and beyond.

SCE uses the federally prescribed Incident Command System and operates PSPS Incident Management Teams which enables enhanced integration of Energy Operations Centers (EOCs) and response agencies during a PSPS event.² SCE notifies all its PSPs as specified in Section 5.3.6.7 of SCE's Wildfire Mitigation Plan. During activations, SCE facilitates a daily State executive briefing with representatives from Cal OES, CAL FIRE, CPUC and other state agencies and agency representative are welcome to participate in informational briefings. SCE primarily engages many of its partners remotely and through the daily briefing calls. However, PSPs can request to send a representative to be embedded in SCE's EOC. Conversely, when requested, SCE sends agency representatives to county emergency operations centers. In 2019, agency representatives from Cal OES and Los Angeles County were sent to SCE's EOC for multiple PSPS events. In addition, SCE deployed Agency Representatives to the State Operations Center during a large PSPS event in October.

Data from SCE's weather stations is publicly available on Meso West (mesowest.utah.edu) which local and county governments and agencies can access. SCE also makes PSPS circuit information available to PSPs through a GIS data sharing portal. This includes data about circuits that are in scope for or experiencing PSPS to support local jurisdiction plans for PSPS events and determine how best to scale their response and resources. Additionally, SCE makes Community Resource Centers and Community Crew Vehicles location information available in real-time to the public via SCE.com.

² During events, SCE personnel are in close contact with public safety partners and other critical infrastructure providers to share information and coordinate responses. SCE typically holds public safety partner meetings once a day in the afternoons during PSPS activations. Cal OES, CAL FIRE, the CPUC, EMSA, and CDPH are invited to these calls. SCE updates all attendees on expected event magnitude, potential duration, circuits in scope, counties potentially impacted, customers potentially impacted, and any emergent concerns regarding the potential PSPS event. SCE also provides information on the cadence of briefings and answers any questions attendees may have. In addition to these scheduled meetings, SCE remains ready to answer any questions or calls, and attend any additional briefings any of these agencies may request to schedule.

As required by the Decision in Phase 1 of the PSPS OIR,³ SCE maintains a list of local government, first responders and PSP contacts that is updated annually or even more frequently if mid-cycle updates are provided by external agencies. SCE agrees that “an online emergency contact list with local government liaisons” for utility’s service area could be valuable and supports a centralized location for such information as part of the state’s emergency planning and preparedness. However, it is essential that SCE continues to maintain its own contact list and receive updates from partner agencies to adequately support its stakeholder engagement and outreach activities.

3: SHARING DEVELOPING SCIENCE AND SITUATIONAL AWARENESS DATA

A. SCE Agrees with the Recommendation to Share More Information

SCE agrees that 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, and supports collaboration with other IOUs regarding modeling methods and documenting current modeling techniques.

SCE also agrees that a state-wide, centralized data and situational awareness center that aggregates data from sources including High Definition (HD) cameras, and weather stations, in addition to other data collected periodically like early warning data, Geographical Information Systems data, fuel modeling data, and historical burn patterns would be useful. SCE already makes data from its weather stations and HD cameras publicly available.

Regarding the Board’s recommendation of providing qualifications of fire scientists in future WMPs, SCE has hired a highly qualified fire scientist who leads its weather and fire modeling and is open to providing qualifications upon request.

SCE performs post-event analyses and lessons learned about the efficacy of using weather modeling results for PSPS-related decisions to refine its models and operating protocols, and supports submission of the results of such analysis to the CPUC.

B. The WSD and Utilities Should Work Together to Determine What Data is Suitable for Sharing

While SCE supports sharing data with other organizations to learn from and utilize, what data is to be shared and what form it will be shared in should be determined through a collaborative process with the utilities. Not all of the information requested by the Wildfire Safety Division for the 2020-2022 Wildfire Mitigation Plans (WMPs) may be useful for mitigating the threat of wildfires. Further, utilities may not have the same data in the same format. Finally, some of the data requested may present physical and

³ See Decision 19-05-042, Appendix A.

cybersecurity issues if widely disseminated. 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.

Further, while SCE supports increased collaboration with academia and the scientific community to understand, compare, validate and implement robust fire modeling methodologies, techniques, and algorithms, it is imperative that pursuit of detailed analyses of various modeling capabilities, their sensitivities and sources of uncertainty does not impact applying these models to enhance operational protocols and risk modeling. Though comparing and learning from various models can be useful, incorporating multiple weather modeling and fire behavior modeling methods, particularly from outside sources, introduces a level of complexity that can result in confusion and poor decision making regarding daily operations, especially during periods leading up to and during PSPS events.

Though SCE supports sharing information with the WSD and the scientific community, it has concerns about making advanced weather modeling and fire modeling information available to the public. Some of the information recommended to be made available to the public are intellectual properties 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 territory and is proprietary. SCE also has liability concerns regarding external users 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 territory 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 PSPS events available to emergency managers to support their logistical planning and response.

Similarly, 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 partners, but does not believe it is necessary to provide information such as their academic engagements and course schedules which are not relevant to SCE's wildfire mitigation activities.

C. Utilities Should Not Be Responsible for Creating or Maintaining Any Central Data Repository

Though SCE is supportive of the creation of a state-wide central portal, system or facility, this type of work is not within utilities' core responsibilities. Development and operation of such a system would be better served by another entity. Accordingly, SCE does not believe utilities should be responsible for development, implementation, or maintenance of such a system and utilities should not be required to include any plans associated with such a system in their WMPs.

4: FUTURE PROOFING UTILITY PILOTS AND ALIGNING PILOTS WITH CLIMATE GOALS

A. SCE Supports Providing Additional Information On Pilot Projects

Pilot projects are critical to test new technologies to improve wildfire and PSPS impact mitigation. SCE supports providing details and our pilot plans and sharing results. SCE has provided details for the pilots proposed in its 2020-2022 WMP including objective, scope, cost and rationale. SCE agrees with supplementing this information with how success will be measured upon pilot completion in its future WMPs.

SCE also agrees with the Board that pilots and pilot implementation should extend beyond microgrid development. PSPS resilience is but one objective of SCE's pilot projects. SCE has proposed several pilots as outlined in Section 5.3 of its 2020-2022 WMP.

B. Pilot Projects Should Be Reviewed Based On Pilot Objectives And Costs, Not Broader Scale Implementation Plans

Pilots by their nature are exploratory and often do not have the level of detailed information that SCE provides for traditional or more mature programs.

The Board observes that utility pilot plans do not "include implementation details or details that would allow regulators to judge the expected effectiveness of the pilots"⁴ and recommends that the "Wildfire Safety Division consider requiring the utilities to submit pilot implementation plans for all new and emerging technologies for wildfire mitigation" and that WSD "should consider developing requirements and criteria to assess the reasonableness of the pilot implementation plans and the costs." The purpose of the pilots is to test out new ideas that show promise, validate effectiveness, and gather information on benefits, costs and operational considerations for larger scale deployment. Utilities cannot prejudge the results of the pilot and provide implementation plans and costs. Some pilots may not lead to larger scale deployment, but pilot projects are low cost means of identifying high impact activities that can be scaled. Future proofing utility pilot projects with these additional requirements would be counterproductive and would prevent necessary innovation. In fact, if they are future proofed, pilots would not be necessary. Rather, SCE supports sharing the results of the pilots in applicable filings for larger scale implementation or in WMP Off Ramp filings depending on the timing and outcome of the pilots. Furthermore, SCE suggests that these filings are the more appropriate time and place for "stakeholders to provide technical input based on industry knowledge."

While SCE agrees that pilot projects should be aligned with state resiliency and climate goals to the extent possible, SCE needs to consider several customer-care, technical,

⁴ Board Draft Recommendations for WMPs p. 14.

operational, cost, environmental, and regulatory considerations as it designs, deploys and evaluates pilots. There are tradeoffs among these factors. For example, while SCE agrees that fossil-fueled temporary backup generation solutions are not ideal for achieving the longer-term renewable energy goals, their ubiquity, reliability, cost-effectiveness, portability, availability, and flexibility make them viable options for PSPS impact mitigation in the immediate and near term.

5: FUEL MANAGEMENT, REMOVAL OF AT-RISK SPECIES, AND SCIENTIFIC REVIEW

SCE conceptually agrees with some of the issues raised by the Board in this section, but has some concerns about the specific recommendations. At a high level, the Board's proposed approach aligns with SCE's Integrated Vegetation Management (IVM) Plan outlined in Section 5.3.5 of SCE's 2020-2022 WMP. However, SCE's focus at this time is reaching and maintaining expanded clearances where feasible and mitigating the risk of ignitions associated with vegetation contacting electric infrastructure. Specific vegetation management plans to address non-forested areas and woody-shrubland areas would take three or more years to develop and include in SCE's WMPs.

A. Irrigating Vegetation in Proximity to Utility Facilities May Not be a Viable Wildfire Mitigation

SCE appreciates that dry grass may be more flammable than a woody shrub due to low moisture content. To reduce fire propagation risk in the event of sparks and ignition, SCE undertakes extensive brushing around poles. However, due to the large surface area that would have to be irrigated as well as the remote nature of many of SCE facilities in high fire areas, SCE does not consider the use of irrigation systems, even with recycled water, as a viable and cost-effective method to increase the moisture level of grass around SCE infrastructure. As part of SCE's IVM Program, SCE is considering the feasibility and efficacy of planting moisture retaining vegetation.

B. Tailoring Vegetation Management at the Species Level May Not Be Practical

SCE understands there may be a difference in fuel characteristics within species and sub-species within the same genus; however, it's not practical for SCE to tailor vegetation management at a higher granularity than the genus level. 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). SCE takes into account the genus of trees when performing its compliance trimming. For example, an SCE contract inspector may determine that a slow-growing genus requires less trimming whereas a fast-growing genus at the same distance from SCE's facilities might require more frequent and deeper trimming. SCE also uses ISA-certified arborists when determining when to remove living trees outside of the recommended

clearance distance. However, SCE inspects all vegetation in its inventory annually, and moving from identifying vegetation at the genus level to species or sub-species level would require SCE's contract inspectors to be replaced with much higher skill-level inspectors, typically with the technical qualifications of ISA-certified Arborists. California is already experiencing a shortage of ISA-certified Arborists and the Board's recommendation would exacerbate the resource constraints. The benefits of identifying species and sub levels be minimal.

C. Some Vegetation Management Beyond 12-foot Radial Distance is Necessary

SCE's vegetation management primarily includes trimming (pruning) and removal. Pruning is performed to meet regulatory standards and removals are performed when the vegetation poses a hazard to the public or utility infrastructure. SCE does not agree with the Board's observation questioning the necessity to go beyond 12-foot radial recommendation for vegetation management, assuming it includes mitigating trees that have the potential to strike utility equipment from beyond 12-feet (SCE's Hazard Tree Mitigation Program). Developing and implementing plans that mitigate ignition risks associated with SCE's infrastructure is a responsibility that SCE takes seriously. Trees and tree limbs beyond a 12-foot radial distance from energized conductor that are assessed to be high risk in terms of strike potential due to their height or proximity to SCE's infrastructure have to be removed to mitigate ignition risks regardless of radial clearance distances. SCE's Hazard Tree Mitigation Program addresses trees that have the potential to strike utility equipment from beyond 12-feet. Mitigations undertaken by SCE are based on industry recognized assessment techniques and therefore having additional review by fire scientists and ecologists would not provide additional benefits. On a related note, footnote 10 of the Draft Recommendations refers to branches, limbs, and overhanging vegetation must be trimmed to the recommended 12-foot radial clearance, but GO 95 Rule 35 Appendix E has 12-foot as the recommended clearance, not the required clearance. The minimum required clearance for HFTD is 4-foot.

D. The Suggested Data Provision is Unnecessary

SCE already submits details of program plans for vegetation management prior to implementation as described in Section 5.3.5 of SCE's 2020-2022 WMP, SCE GRCs (See, e.g., 2021 GRC, Exhibit SCE-02, Volume 6), and SCE's GRSP. Imposing additional requirements and Commission approvals will add inefficiencies and delays without adding material benefits for wildfire risk mitigation. SCE does not see the value of providing scientific citations for CPUC approved ongoing activities primarily driven by compliance requirements. SCE supports sharing successes and challenges as it routinely does in WMP workshops, progress reports, off ramp reports and other filings.

Further, although vegetation in SCE's inventory is recorded using latitude/longitude, genus type, treatment details (prune amount) and whether removal was performed, SCE has over one million trees in its active inventory. Submitting data for each treatment area to include the aforementioned items would result in a huge submission

of data that would not provide any particular value towards evaluating the effectiveness of SCE's vegetation management program. Further, while providing justification, risk reduction, and RSE for each type of treatment (e.g. hazard tree removal, pole brushing, etc.) may be reasonable, more granular risk analysis is currently unavailable and is unlikely to be available at the tree or tree species level in the near future. SCE recognizes that tranches are preferred, if reasonably possible, and will have some form of tranches implemented in SCE's next RAMP filing, consistent with the SMAP Settlement Agreement.

6: ANALYZING NEAR MISSES

A. SCE is Effectively Analyzing "Near Miss" Data During PSPS Events

SCE agrees that "near misses" provide useful information for utilities to incorporate in its grid design, wildfire mitigation program design and operational processes. Currently, SCE investigates, identifies and documents near misses during PSPS and remediates those conditions prior to reenergization after PSPS events.

7: TRAINING PROGRAMS AND QUALIFIED ELECTRICAL WORKERS

A. Setting Minimum Qualifications For Electrical Inspectors is Unnecessary

SCE agrees in concept with the need for properly qualified and trained asset inspectors. SCE undertakes rigorous classroom and field training including job shadowing for the electrical equipment and structure inspectors. SCE used qualified electrical workers (QEWs) to perform inspections as part of the Enhanced Overhead Inspection (EOI) program in 2019, and engineers and QEWs evaluated the images from aerial inspections to determine issues. Since then, SCE has expanded its training program for inspections going above and beyond General Order 95 to emphasize inspection requirements, equipment and equipment condition recognition, and electrical risk mitigation. SCE continues to refine its inspection training programs based on input from field worker and quality control inspectors. SCE has also hired over 40 new inspectors in 2019 and 2020, an increase of nearly 50% compared to 2018 levels.

SCE can share information about the counts, qualification, and training of its electrical inspectors with WSD and the Board upon request, but does not believe it is necessary to set minimum qualifications. There are differences among how different utilities manage their construction and operational practices and utilities should be afforded the flexibility to determine how they plan, manage and execute their work including the number of inspectors, their qualifications, training provided, and the allocation of work between qualified inspectors and QEWs.

QEW is an OSHA defined term, which in general is a person who is permitted to work on or near exposed energized parts. Though SCE used QEWs for the EOI program, the circumstances were unique during the first cycle of comprehensive inspections

across all of SCE's HFRA within a very condensed timeframe. It is not practical or cost-effective from resource availability and cost perspectives to utilize QEWs for all transmission and distribution inspections on an ongoing basis. SCE prefers allocating QEWs for construction, maintenance and repair while providing inspectors with adequate training to perform their job. Therefore, SCE agrees that inspectors should be "qualified," but not necessarily that they be "qualified electrical workers."

It is also unclear how the qualification of inspectors pertains to the Board recommended Wildfire Safety and Mitigation Performance Metric of "Submission of Geographical Information System data and time stamped locations to the Wildfire Safety Division of all inspections performed by qualified electrical inspectors."⁵ SCE tracks this information for all inspections performed on its electrical assets and has provided a summary to the WSD.

8: CRITERIA TO PRIORITIZE REDUCING PSPS EVENTS FOR CRITICAL INFRASTRUCTURE

A. SCE is Developing Grid Hardening-Driven PSPS Operating Criteria

SCE strongly supports developing and implementing plans to mitigate the impact of PSPS events. As mentioned in its 2020-2022 WMP, SCE continues to refine its operational protocols for PSPS. An aspect of this refinement is developing PSPS operating criteria that takes deployed grid hardening into account. Though it cannot eliminate the need for PSPS, grid hardening such as covered conductor installation and deteriorated/damaged infrastructure replacement do mitigate ignition risks that can in turn reduce the need for PSPS in some instances. Other grid hardening measures such as installation of sectionalization equipment helps SCE be more surgical in targeting circuit segments for de-energization. SCE is developing grid hardening-driven PSPS operating criteria and looks forward to sharing these with the WSD and others once formalized, and expects to include more specifics in SCE's next WMP. SCE reiterates what it said in its 2020-2022 WMP; however, that though the frequency and scope of PSPS events are expected to decrease as we deploy more of our WMP activities, PSPS will have to remain available as a tool to mitigate wildfire risk during severe weather and high Fire Potential Index (FPI) events.

SCE is also conducting circuit-specific evaluation for each PSPS-impacted circuit to prioritize and tailor mitigation efforts. This evaluation takes the frequency and duration of past PSPS de-energizations along with count of customers affected into account. The evaluation also considers key customer attributes including, but not limited to, whether they are AFN, medical baseline and critical care customers for both residential and non-residential customers. SCE also agrees with the Board that grid hardening is just one means of mitigating PSPS impacts, especially because grid-hardening prioritization is and should continue to be informed by ignition risk analysis. SCE

⁵ Board Draft Recommendations for WMPs p. 22.

concur that “the utilities should promote efforts that achieve the dual emphasis of A) work done to reduce the risk of utility initiated wildfires and B) removing line sections from potential future PSPS events.”⁶ Other activities such as deploying weather stations for more timely and accurate weather information, or providing temporary backup generation for PSPS resiliency can be effective solutions to mitigate impact depending on the combination of grid topography, community-specific customer needs, cost, resource availability, and lead time for deployment. SCE needs to balance several factors in determining the portfolio of solutions that is best suited for a particular circuit or circuit-segment to mitigate PSPS impacts.

SCE agrees with sharing the factors SCE considers in prioritizing circuits for PSPS impact mitigation activities and the community-specific solutions with stakeholders. SCE also agrees that seeking input from communities on critical community infrastructure and community-specific needs are valuable inputs as SCE determines the highest priority line segments to target for future PSPS avoidance or PSPS impact mitigation.

SCE will address the discussion on Risk Spend Efficiency (RSE) related to PSPS in topic 10 below.

9: ANALYZING FIRE MAPS TO EXCLUDE LINES FROM PSPS EVENTS

A. SCE Does Not Support Excluding Circuits or Circuit Segments From All Possibility of Potential PSPS Events

SCE agrees with the objective of reducing the frequency, scope, and duration of PSPS events. However, at this time, SCE does not support excluding circuits or circuit segments from potential PSPS events. The various wildfire mitigation activities SCE is implementing will help mitigate ignition risk and also help reduce the frequency, scope, and duration of PSPS events. These activities cannot eliminate ignition risks for most circuits or circuit segments, and therefore cannot eliminate the need for PSPS for those locations. That being said, SCE has initiated a process to identify and evaluate line segments that would effectively be excluded from PSPS due to operational criteria where the location is completely underground or in an urban area outside the wildland urban interface. Due to the dynamic nature of the distribution system this will require ongoing evaluation rather than a one-time effort.

SCE supports and has already been working towards developing circuit-specific plans for HFRA circuits that previously experienced PSPS frequently to mitigate PSPS impacts.

SCE has also created a switching playbook for each HFRA circuit to be used prior to, and during PSPS events. These plans identify existing sectionalizing and switching

⁶ Board Draft Recommendations p. 25.

devices so that SCE can dispatch qualified personnel to perform pre-switching and guided in-event de-energization to keep as many customers energized as weather conditions allow. In addition, these plans include adding switching equipment to allow for proactive circuit reconfigurations, replacing small segments of bare conductor with covered conductor or undergrounding targeted segments, identifying load blocks that can be provided temporary backup generation, and adding weather stations to better inform optimal sectionalization efforts.

10: RISK SPEND EFFICIENCY AND COSTS OF PSPS EVENTS

A. Factoring PSPS Risks and Costs into RSE Will Take Time

SCE supports the Board's recommendation that utilities factor PSPS impacts into its risk analysis that informs decision making on wildfire mitigation activities to undertake and prioritize where these activities are deployed. SCE developed a single RSE for the suite of activities associated with PSPS as a mitigation option against wildfire and included this in its 2020-2022 WMP. While SCE is evaluating the risk associated with initiating a PSPS event individually, namely the probability of the occurrence, consequences at a customer class level, and potential mitigation options, there are a few factors that need to be considered before implementation.

Developing a robust methodology for inclusion of PSPS impacts into risk analysis will take some time. A stakeholder process to standardize the analytical approach will be essential to ensure consistency. SCE proposes that the Commission develop and approve specific taxonomy (language and definitions) for the nomenclature that is used. As an example, "critical infrastructure" has various interpretations and implications whether it relates to grid infrastructure and community infrastructure and both are important in making PSPS decisions. Additionally, how PSPS impacts are quantified needs to be agreed upon so that only primary impacts are included consistent with how risk is quantified for other risk events instead of trying to account for derivative and societal impacts that have inherent uncertainty associated with quantification. SCE would find collaboration with the Commission and other IOUs in determining how best to quantify PSPS impact probability and consequence very helpful. SCE proposes initiating such a process so that SCE can include the progress it makes on PSPS impact risk analysis in its next WMP update.

Lastly, SCE supports inclusion of PSPS impacts in risk analyses (not limited to RSEs) for prioritization of WMP activity deployment, not necessarily to calculate RSEs. As discussed in detail throughout SCE's 2020-2022 WMP, SCE utilizes RSEs to select enterprise-level activities to undertake for wildfire mitigation (along with other key safety risk mitigation activities). To prioritize deployment within those selected enterprise level wildfire mitigation activities, SCE's decisions are informed by asset-specific risk analyses that uses detailed ignition probability, fire propagation and consequence.

11: RE-ENERGIZATION AFTER PSPS EVENTS

A. SCE Endeavors to Re-Energize Circuits After PSPS Events as Quickly as It Is Safely Possible

SCE has defined PSPS protocols that culminates in an Incident Commander giving the approval to begin restoration patrols, as weather permits, on a circuit-by-circuit basis. SCE's qualified field personnel identify which sections can be ground-patrolled and which sections need to be patrolled by air due to access or terrain issues estimates, as well as the time needed to patrol all of the affected circuits. Actual restoration times can vary from these estimates based on issues found during the patrols that need remediation prior to re-energization, resource availability, and other inherent variability with access, terrain, time of day, and visibility, especially during severe weather conditions. SCE's goal is to reenergize lines as quickly as it is possible to make it safe for our customers after weather conditions subside.

SCE supports tracking the time of re-energization per circuit after a determination that adverse weather conditions have ended. Currently, SCE tracks the Incident Commander approved restoration time and the actual restoration time for each circuit during a PSPS event. SCE also supports reviewing and performing cause analysis if PSPS re-energization times exceed estimates. When a delay does occur, SCE documents the reason and incorporates lessons learned to prevent similar delays in the future.

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

Sincerely,

//s//

Carla Peterman
Senior Vice President, Regulatory Affairs
Southern California Edison

cc: Caroline Thomas Jacobs, Director Wildfire Safety Division, CPUC
Jaime Ormond, Energy Division, CPUC
Katherine Stockton, Executive Division, CPUC