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Carla Peterman
Senior Vice President
Regulatory Affairs

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Caroline Thomas Jacobs, Director
Wildfire Safety Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

SUBJECT: Southern California Edison's Reply to Comments on Quarterly Reports

Director Thomas Jacobs,

Pursuant to the Guidance on the Remedial Compliance Plan & Quarterly Report Process Set Forth in Resolution WSD-002 issued by the Wildfire Safety Division (WSD) on July 17, 2020 and the WSD's September 8, 2020 letter responding to certain stakeholders' request to extend the comment period, Southern California Edison Company (SCE) hereby submits its reply in response to the public comments served on September 30, 2020 on SCE's 2020-2022 Wildfire Mitigation Plan (WMP) first Quarterly Reports (QRs).

INTRODUCTION

Only Public Advocates Office (Cal Advocates), Mussey Grade Road Alliance (MGRA), Small Business Utility Advocates (SBUA), and the Green Power Institute (GPI) submitted comments on the QRs. A number of stakeholders' arguments proffered recommendations that go beyond the Class B deficiency conditions for consideration in future WMP updates and should be rejected as beyond the scope of the WSD's review of QRs. Other stakeholder recommendations are misinformed and SCE clarifies its QR responses for these. SCE also agrees with some public recommendations. Given the space constraints for these Reply Comments, and because many public comments overlap, SCE has necessarily limited its reply to the most salient comments on particular subjects.[1]

RISK-RELATED

Several stakeholders' recommendations pertain to risk-related constructs or changes.[2] WSD should defer all risk-related modeling issues to the ongoing Risk-Based Decision Making Framework OIR (R.20-07-013) to ensure any changes to risk modeling have been methodically and systematically vetted by qualified parties and to prevent fragmentation of different risk methodologies. Other stakeholder risk-related comments/questions were explained in our QRs. For example, GPI questions why PSPS was modelled as only having consequence versus ignition risk reduction.[3] In our Guidance-1 QR, SCE explained the rationale for its PSPS analysis and how for purposes of risk modeling it was modeled as a consequence mitigation.[4] Furthermore, in establishing deficiency Guidance-1, WSD made clear in WSD-002 that utilities should not rely on RSE calculations as a tool

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[1] SCE's silence on any particular stakeholder recommendation should not be interpreted as acceptance, agreement, or acquiescence with that recommendation.
[2] *See*, for example, GPI Comments at pp. 2-4 and Cal Advocates' Comments at pp. 3 and 8.
[3] GPI Comments at p. 10.
[4] *See*, QR for Guidance 1, notes for Table 1, p. 5.

to justify the use of PSPS.[5] PSPS risk-modeling changes should thus be evaluated in R.20-07-013. GPI also questions why each mitigation initiative is only afforded either ignition or consequence risk reduction.[6] SCE answered the conditions of Guidance-1 regarding calculating the reduction in ignition and consequence risk of each mitigation and did so in Table 1. SCE did not state anywhere that a mitigation is only afforded exclusively ignition or consequence risk reduction. In fact, Table 1 shows that SH-3 (Fire-Resistant Composite Poles) has both ignition and consequence risk reduction. GPI also wrongly suggests SCE did not include useful life assumptions in each mitigation initiative.[7] SCE addressed useful life on page 3 of its Guidance-1 QR (useful life is incorporated into the RSE) as well as in the Excel spreadsheet included as an attachment in response to the Guidance-1 deficiency.

Cal Advocates and MGRA commented about the use of "SME judgment" as it pertains to mitigation effectiveness. SME judgments are based on management, engineers and construction personnel with years of experience, and informed by benchmarking and field studies, as examples, which then have to be calibrated based on SCE's unique geographical and electrical system characteristics. Cal Advocates wrongly suggests SCE's estimated covered conductor reduction in faults caused by animal, balloon and vehicle contact were *only* based on SME judgement.[8] SME judgment used to determine the mitigation effectiveness of covered conductor is based on benchmarking, analysis, and testing, which has been documented in the Covered Conductor Compendium.[9] SCE has benchmarked with a number of utilities abroad and in the United States. Although drivers for covered conductor use varied among utilities, with some targeting public safety or reliability, by all accounts covered conductor prevents contact-from-object (CFO) faults. Additionally, SCE conducted further tests to establish that covered conductor will prevent contact-from-object phase-to-phase or phase-to-ground faults. Testing found that when objects, such as wildlife, metallic balloon, vegetation, or other phases (wire-to-wire), make temporary contact with the covered conductor, current magnitudes were well below 1 mA and energy generated by the contact was less than 1 watt. With no arcing or temperature increase observed, SCE validated that covered conductors prevent contact-from-object faults and SMEs used this data to inform effectiveness of covered conductor.

Many of SCE's wildfire mitigations started either in 2019 or 2020 and so over time there will be a shift from SME judgment, benchmarking and testing to recorded data-driven analysis as more data is collected and calibrated. However, Cal Advocates' recommendation for utilities to provide a plan to supplement and complement "SME judgment" goes beyond the scope of the Class B deficiency conditions and should be rejected.

GPI and MGRA commented about the lack of RSE or in cases have further levels of disaggregation for RSE calculation. SCE included a column in Table A7-A11 noting the reasons (e.g., enabling/supporting activity) for why a RSE was not calculated, consistent with WSD-002 that affirmed that "wildfire mitigation measures are initiatives designed to reduce the risk of utility-caused ignition."[10] MGRA also suggests utilities conduct a "world of hurt" analysis for foundational or

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[5] WSD-002 at p. 20.
[6] GPI Comments at p. 10.
[7] GPI Comments at p. 10.
[8] Cal Advocates' Comments at p. 3.
[9] SCE's Covered Conductor Compendium has been made public by the CPUC and can be accessed on pages A14-A256 of SCE's GRC Rebuttal Testimony at the following link: https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A1908013/2745/340234737.pdf.
[10] WSD-002 at p. 39.

supporting activities.[11] SCE discussed in more detail in its Remedial Compliance Plan (RCP) for Guidance-3 asset management, vegetation management, grid hardening, and PSPS initiatives as to why they were selected as part of SCE's portfolio of wildfire mitigations, what risks they were mitigating and why in some cases an RSE was not calculated. SCE's approach in its Guidance-3 RCP for foundational and supporting activities is more sensical than MGRA's recommendation to develop backward-looking scenarios with unrealistic assumptions.

CAUSES OF FAULTS AND FIRES

Cal Advocates asserts there is a significant percentage of faults and ignitions on distribution circuits in our Guidance-1 QR supporting data that are categorized as unknown/unspecified and that WSD should require SCE to include an update on its efforts to determine causes of faults and demonstrate a reduction in the proportion of incidents and ignitions attributed to unknown/unspecified drivers each year.[12] As explained in its RCP for SCE-2, SCE's categorization of near misses into the category "Other" should not be used to draw the conclusion that SCE did not know the cause of those faults. Instead, SCE's original Tables 11a and 11b attempted to capture key drivers of ignition pursuant to the WMP Guidelines Table formats, categories and requirements. Therefore, SCE placed certain types of faults in the "Other" category that are generally not considered a key driver of ignition risk, such as underground or substation equipment failure. SCE provided revised Tables 11a and 11b as part of our SCE-2 RCP that further breaks out the "Other" category and demonstrates SCE does know the cause of many faults and ignitions in this category and has been reducing the number of unknown cause determinations over the last several years. The worksheet ("Table 11&18map") Cal Advocates references was only used as a basis to forecast the figures in Tables 31A and 31B. The WMP Guidelines requirements for Tables 31A and 31B also did not include subcategories below "Other," thus SCE maintained the tables' categorization. Given that SCE has provided updates to Tables 11a and 11b that further breakout "Other" cause determinations and provided detailed explanations of its outage cause determination processes, procedures, protocols and tools, and the actions we are taking to drive down the number of near misses and outages attributed to "Other" causes, Cal Advocates request should be dismissed and found as already met pursuant to our SCE-2 RCP.

VEGETATION AND FUEL MANAGEMENT

In its comments on SCE-14, MGRA recommends SCE provide data quantifying tree-caused circuit outages (TCCIs) based upon number of incidents per 1,000 trees.[13] SCE provided a list of top 10 tree types that demonstrate "at-risk" attributes. SCE's list was derived from both in-house arborist expertise and historic data tracking of TCCIs. On average, SCE has approximately 450 TCCIs annually compared to a total tree inventory population of approximately 1.15 million. This represents approximately 0.04% TCCIs to tree inventory. Although SCE has specific data per species (inventory versus TCCIs), SCE does not see the value in providing this metric as pre-inspectors incorporate the risk attributes into their decision-making process to determine the appropriate mitigations for the trees. Cal Advocates supports SCE's explanations in SCE-14 and recommends workshops so utilities can share best practices such as those provided by SCE.[14] SCE supports sharing best practices in a workshop setting or otherwise.

GPI makes a few recommendations that go beyond the scope of SCE-22 conditions. First, GPI recommends SCE consider fuel and slash management as part of the wildfire mitigation toolbox and

[11] MGRA Comments at p. 2.
[12] Cal Advocates' Comments at p. 8.
[13] MGRA Comments at p. 9.
[14] Cal Advocates' Comments at p. 4.

include as a regular program informed by an RSE and that all IOUs should propose "enhanced" fuel and slash initiatives.[15] As explained in SCE-22, SCE does have fuel management programs as part of its vegetation management activities in and around its rights-of-ways (ROWs). SCE-22 conditions, though, focus on USFS fuel reduction efforts. SCE's response meets this deficiency's conditions and GPI's recommendation should therefore be dismissed as out of scope. Furthermore, SCE explained that it is performing an assessment on whether it should provide funding to USFS to implement fuel reduction projects outside of our ROW to further reduce wildfire risk related to our electrical infrastructure and expects this assessment to be completed by year-end and inform potential additional future fuel management activities. Second, GPI's request for additional detail including, for example, protocols for vegetation management slash removal and the percent of total debris sent to biomass plant facilities is also beyond the scope of SCE-22 and should be dismissed.[16]

GPI also recommends clarification of differences between SCE's DRI program, Hazard Tree removals and whether these removal programs can be combined. This recommendation is also beyond the scope of SCE-22; however, SCE described the differences in its QR: SCE's DRI program focuses on *dead* and *dying* trees whereas SCE's HTMP focuses on *green* trees with the height and a feasible path to strike electrical lines or equipment, where significant visible defects are present.[17] Furthermore, DRI inspections are a patrol type inspection, performed quite rapidly several times throughout the year in HFRA and inspectors look for trees that have obvious signs that the tree is dead or anticipated to die within a year, including infestation with Bark Beetles. HTMP assessments are performed by ISA Certified Arborists who traverse the highest risk areas of SCE's HFRA and look for living trees that may display certain characteristics or have poor site conditions making them prone to fail and potentially strike SCE's facilities. SCE supports combining programs to reduce costs to the extent feasible, and we are currently exploring integrating aspects of our vegetation programs. Notwithstanding SCE's continual improvement efforts, GPI's recommendation is beyond the scope of SCE-22 and should be dismissed.

HOT LINE CLAMPS

For SCE-8, Cal Advocates recommends WSD require SCE to provide more detail on its plans to replace non-exempt hot line clamps in its Dec. 2020 QR.[18] SCE met the conditions of SCE-8 in describing how it inspects and remediates at-risk connectors as part of its inspection and maintenance programs. Cal Advocates recommendations go beyond the scope of the conditions for SCE-8. Furthermore, SCE-8 is a one-time QR. For these reasons, Cal Advocates hot line clamp recommendations should be dismissed.

COVERED CONDUCTOR UNIT COSTS

For SCE-19, GPI recommends SCE explain covered conductor cost per mile differences for 2019 compared to the estimated cost per mile for the WMP period.[19] Despite the fact that this request is beyond the conditions in SCE-19, SCE's covered conductor cost per mile is lower than its estimated cost per mile. Costs can span multiple years (e.g., planning and material costs incurred in 2019 for work to be completed in 2020); simply taking the annual expenditures and dividing by the total miles

[15] GPI Comments at p. 11.
[16] GPI Comments at p. 12.
[17] SCE first QR at pp. 283-284.
[18] Cal Advocates Comments at p. 9.
[19] GPI Comments at pp. 10-11.

would not provide an accurate unit cost. Analyzing closed work orders ensures that only the costs of completed circuit miles are captured in the unit cost.[20]

PSPS-RELATED

MGRA recommends WSD drive an effort to quantify both "customer harm" caused by PSPS and the benefit of PSPS in terms of avoided wildfire losses.[21] PSPS risk-modeling methodologies are best suited for R.20-07-013. SCE agrees with MGRA's recommendation of implementing strategies to eliminate customer harm from PSPS as we continue to implement targeted solutions such as rebates on portable power stations, generators, fully subsidized battery backup with solar for qualified critical care customers, and activation of Community Resource Centers and deployment of Community Crew Vehicles. MGRA also suggests Guidance-4 conditions required quantitative calculations.[22] This is false and SCE met the conditions with its detailed responses on how our wildfire initiatives affect frequency, scope, and duration of PSPS events.[23] MGRA also suggests utilities should eliminate PSPS over time.[24] SCE continues to implement strategies to reduce the scope, frequency and duration of PSPS events; however, SCE's long-term risk mitigation strategy will not eliminate PSPS as a tool to reduce the risk of catastrophic wildfire because the risk of ignition is nonzero for the foreseeable future. SCE agrees with SBUA's recommendation for SCE-20 regarding false positives and has recently asked the Commission to clarify the definition of false positive/false negative communications for the purposes of post-event reporting.[25]

CONCLUSION

SCE appreciates the opportunity to submit its reply to stakeholder comments and recommends the WSD approve SCE's first QRs 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, Regulatory Affairs
Southern California Edison

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

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[20] *See* SCE's August 2020 Grid Safety and Resiliency Program Report, pdf p. 9. As shown in this report, the covered conductor unit cost of $503.5 thousand includes the incremental cost of fire-resistant poles and compares to the estimated cost of approximately $515 thousand per circuit mile on an equivalent basis.
[21] MGRA Comments at p. 4.
[22] MGRA Comments at p. 4.
[23] *See* SCE's first QR for Guidance-4, including Appendix A.
[24] MGRA Comments at p. 4.
[25] In SCE-20, SCE recommends that false positive/false negative notification findings only be applied to imminent de-energization and re-energization messaging during the period of concern for a PSPS event.