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BY OEIS E-FILING

SUBJECT: Southern California Edison Company's Comments on Draft Resolution WSD-020

Director Thomas Jacobs,

In response to Draft Resolution WSD-020 (Draft Resolution), with an attachment of the Draft Action Statement of the Office of Energy Infrastructure Safety (OEIS or Energy Safety) served on July 16, 2021, which present Energy Safety's evaluation of Southern California Edison Company's (SCE) 2021 Wildfire Mitigation Plan (WMP) Update, SCE provides the following Comments.

I. INTRODUCTION

SCE appreciates the opportunity to provide comments on the Draft Resolution and the accompanying Energy Safety Draft Action Statement proposing approval of SCE's 2021 WMP Update. SCE is dedicated to the safety of our customers and the communities we serve, and is fully committed to transparency, continued improvement, and building on the progress made on its wildfire mitigation efforts. This important work is critical to reducing the risk of catastrophic wildfires, especially in California Public Utilities Commission (Commission or CPUC)-designated High Fire Threat Districts (HFTD), given the unprecedented and worsening conditions associated with climate change, extreme weather, and drought conditions. SCE also appreciates the contributions of Energy Safety, the CPUC, and all stakeholders that participated in the WMP process to date.

SCE's comments focus on correcting factual errors in the Draft Resolution and the Draft Action Statement, as well as proposing changes to the associated requirements based on these corrections and concerns with feasibility of meeting proposed requirements.

II. GRID DESIGN AND SYSTEM HARDENING (SCE-21-04, SCE-21-06)

A. The Draft Resolution Errs in Finding SCE Did Not Adequately Justify the Scope and Pace of its Covered Conductor Program

Issue SCE-21-06 states SCE does not provide adequate justification for the scope and pace of its covered conductor program and requires that SCE re-evaluate the scope and pace of its future covered conductor program. To support this requirement, the draft resolution includes the following assertions that are incorrect and should be updated:

1. "SCE does not sufficiently account for ignition drivers in mitigating risk" and "ineffectively accounts for third party causes for contact ignitions"[1]

These statements are incorrect because SCE's Probability of Ignition (POI) models have included faults and ignitions caused by third parties in the Contact Foreign Object (CFO) model. Specifically, the CFO model has included the following drivers caused by third parties: Animal, Balloon, Vegetation, and Vehicle, as well as CFO caused by other/unknown drivers. By including the above drivers, the third-party-caused contact ignitions have been effectively accounted for in SCE's CFO model. As such, these statements should be removed from the Draft Action Statement.

2. SCE "does not adequately allow for pilot programs to be considered as alternatives"[2]

In SCE's 2021 WMP Update, SCE describes how its pilots (e.g., Rapid Earth Fault Current Limiter (REFCL) technologies, Distribution Open Phase Detection (D-OPD), Early Fault Detection (EFD)) and Distribution Fault Anticipation (DFA) compare to covered conductor in their potential ability to mitigate specific drivers of wildfire risk.[3] Table SCE 9.10-5 illustrates that with the possible exception of REFCL, for which effectiveness assessments are still preliminary, none of the initiatives mitigates wildfire risk drivers as effectively as covered conductor nor do they necessarily address the same risk drivers. Thus, these initiatives are primarily being explored to complement, not replace, covered conductor to help further reduce ignition risk. For example, the primary purpose of DFA is to detect incipient faults (faults that have not yet occurred) or momentary faults that are hard to detect, so that the condition can be remedied before a major fault occurs that results in an ignition or near miss (e.g., conductor that is weakened by repeated wire slap), whereas covered conductor is extremely effective at addressing multiple CFO drivers that directly lead to ignitions or near misses in real time (e.g., vegetation flying into phases). On the other hand, covered conductor does not address certain equipment and facility failure (EFF) drivers such as capacitor bank, switch, or connection device damage/failure. DFA, however, does moderately address those drivers and accordingly is in the early stages of serving as a complementary

[1] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 51.
[2] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 51.
[3] WMP Update Revision – Clean, pp. 634 – 636.

mitigation to covered conductor. Therefore, this statement is incorrect and should be removed from the final Resolution.

3. "SCE does not provide enough information to adequately demonstrate the need for covered conductor for circuits ranked as lower risk by SCE's own risk ranking"[4]

In its 2021 WMP Update, SCE elaborated on how risk analysis demonstrates that there is substantial actual risk in circuits along the right-hand side of the risk buydown curve (i.e., relatively lower risk circuits), stating: "Focusing only on relative risk to define overall scope would not be sufficient or acceptable as customers residing in locations with relatively lower risk still face significant absolute risk."[5] Furthermore, SCE presented data in Table SCE 9.10-2 demonstrating that ignitions associated with lower relative risk circuits could lead to destructive wildfires, and consequences can be further exacerbated depending on actual weather and fuel conditions and third-party fire-fighting abilities to effectively contain resulting wildfires, having real detrimental impact to many homes and businesses.[6] SCE also noted that destructive wildfires have recently occurred in SCE's service area on circuit segments located in areas much further down the risk buydown curve. Further, circuit segments that have lower relative risk serve some of SCE's most vulnerable residential customers and essential services facilities exist in areas throughout the risk curve. As such, SCE weighs all of these factors along with the results of its risk modeling when planning its covered conductor deployment. SCE appropriately demonstrated this need in its 2021 WMP Update and subsequent Revision.

4. "SCE does not identify the cause of each ignition, thereby making it impossible to determine if covered conductor would have prevented or reduced the likelihood of the ignition from occurring"[7]

This assertion is incorrect as SCE does identify the causes of ignitions through SCE's Fire Incident Preliminary Analysis (FIPA) process. These causes and event details are utilized to help determine new or changes to existing wildfire mitigation efforts, such as new technology pilots or updates to existing standards. SCE described its FIPA process in Section 7.3.7.4 of its 2021 WMP Update and identified the FIPA Database as a key database that collects information on risk events. SCE also noted in its Revision in response to Critical Issue SCE-03 that "historical analysis of ignitions shows that faults associated with overhead conductor are the leading cause of ignitions associated with utility infrastructure. Over the last five years, the ignition frequency from CFO, conductor failure and Wire-to-Wire contact in SCE's service area have averaged ~70% of the total

[4] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, pp. 51-52.
[5] SCE's 2021 WMP Update Revision – Clean, p. 621.
[6] SCE's 2021 WMP Update Revision – Clean, p. 621.
[7] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 52.

overall relevant ignitions in SCE's HFRA service area."[8] The deployment of covered conductor substantially reduces the likelihood of ignition associated with these drivers.

5. "SCE relies heavily on the CPUC's designation of Tier 2 and Tier 3 HFTDs to justify its extensive use of covered conductor"[9]

SCE stated in the 2021 WMP Update that "almost every mile of prospective covered conductor installation will occur in areas the Commission has already deemed inherently dangerous by designating them as Tier 3 and Tier 2 HFTD."[10] As such, the CPUC's designation of Tier 2 and Tier 3 supports the need to protect inherently dangerous areas, and is an important fact to support the deployment of covered conductor. As the Commission noted when establishing new regulatory safety requirements for the HFTD: These are the areas that have an "extreme" or "elevated" risk for destructive utility-associated wildfires."[11] However, this is just one of many facts that support SCE's deployment of covered conductor. As discussed in detail throughout the WMP process and as noted in these comments, SCE selected covered conductor based on detailed risk analysis considering probability of failure (using segment-specific attributes including past ignition, outage and near miss data) and consequence of ignition (based on the Technosylva model, which is also used by the Commission).

6. "SCE's costs for covered conductor are significantly lower than those of PG&E and SDG&E" and "SCE's RSE estimate for covered conductor is significantly higher than those of PG&E and SDG&E, both for unknown reasons"[12]

The reasons for which SCE's covered conductor costs are lower than the other IOUs and the somewhat related issue of why SCE's RSE is higher have been discussed during the WMP process. As shown in Energy Safety's comparison of covered conductor values,[13] all three large electrical utilities employ a similar risk reduction efficiency percentage and SCE has the lowest cost per mile due in part to its larger scope of deployment and fewer pole replacements. Furthermore, SCE's costs are validated based on recorded data and there has been no requirement to compare or contrast our covered conductor costs with other IOUs' costs. Even if the reasons for inter-utility variance were unknown, our ability to perform this important mitigation at a lower cost is a benefit, not a reason to doubt our program. Nevertheless, SCE supports joint working sessions with the other utilities to further discuss covered conductor cost and RSE calculations.

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[8] SCE's 2021 WMP Update Revision – Clean, p. 618.
[9] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 55.
[10] SCE's 2021 WMP Update Revision – Clean, p. 622.
[11] D.17-12-024 at p. 2.
[12] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 51.
[13] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 85.

B. The Draft Resolution Should Be Modified to Remove the Requirement to Re-Scope SCE's Covered Conductor Program

The Draft Resolution states that SCE's justification of the scope and pace of its covered conductor program is "not based on up-to-date circuit segment prioritization and risk calculations" and requires SCE to "[r]e-scope SCE's covered conductor program based on the reevaluation in part (1) as well as following remedies for other key issues identified within the Action Statement to specifically and effectively target risk of catastrophic wildfire and PSPS."[14] When its risk models are updated, SCE endeavors to insert newly-identified high risk circuit segments into its scope. For example, SCE was able to prioritize covered conductor installation on frequently PSPS-impacted circuits as part of its PSPS Action Plan. But completely re-scoping the covered conductor program when risk models are updated would be extremely disruptive; it would entail pausing SCE's already in progress deployment of covered conductor and reworking months of engineering design and planning efforts, with serious implications to the efforts to ramp up SCE's workforce to complete this valuable work in pursuit of wildfire risk reduction.

SCE's covered conductor program has an approximate 16- to 22-month cycle time, consisting of design (12 months), permitting/scheduling (6 months), and construction (4 months). Halting work in the permitting/scheduling and construction phases is inadvisable because a substantial amount of work and cost has already been expended, including considerable time and effort working with external permitting agencies throughout Southern California. Furthermore, as of July 2021, there are approximately 1,500 circuit miles of covered conductor scope in various phases of pre-construction (approximately 600 in the design phase, and 900 in the permitting phase). If SCE must pause work and re-scope the entire portfolio, SCE would effectively lose months of design effort, representing a cost as high as $120 million, and this could delay the installation of covered conductor, which is essential to SCE's wildfire mitigation efforts, by as much as 12 months.

Additionally, with approximately 140,000 circuit segments in SCE's HFRA, it is neither practical nor advisable to implement a separate, customized suite of mitigations for each individual circuit segment—ultimately covered conductor should be installed on nearly every one of these segments (where targeted undergrounding is not assessed as preferable). A circuit segment is defined as conductor connecting a structure with equipment (e.g., transformer, switch, junction bar, etc.) to another structure with equipment. Installing covered conductor on one circuit segment, but not a neighboring circuit segment, would not only be operationally inefficient, it would also limit SCE's ability to raise PSPS thresholds for that portion of the circuit. Instead, it makes more sense to analyze mitigations at an isolatable segment level. Isolatable segments of a circuit, through sectionalization devices and weather stations, can be kept energized during a PSPS event while other portions of the circuit are de-energized. Thus, the assessment and deployment of mitigations at the isolatable segment level, rather than the circuit segment level, is a more prudent and cost-effective approach. Where covered conductor specifically is concerned, deployment at an isolatable segment level can help

[14] Draft Resolution, p. 22.

enable SCE to raise PSPS thresholds on those covered portions of the circuit. For context, SCE currently has approximately 2,100 isolatable segments in its HFRA.

SCE understands Energy Safety's goal to provide more detailed analysis that supports the scope and scale of covered conductor deployment. To that end, rather than an entire rescoping of the program, SCE can provide in its 2022 WMP Update additional detail that provides RSEs for covered conductor and applicable alternatives at an isolatable segment level. SCE could also provide additional support and consideration beyond RSE scores for the mitigations selected, as needed. This is a more practical and achievable way to provide additional support for covered conductor, rather than a wholesale re-scoping of the program that would have serious implications to important, in-progress wildfire mitigation work.

C. SCE Supports Coordination in Working Groups to Further Evaluate Risk-Reduction and Cost Effectiveness of Covered Conductor

Issue SCE-21-04 requires the utilities to coordinate to develop a consistent approach to evaluating the risk reduction and cost-effectiveness of covered conductor deployments.[15] SCE supports this requirement and notes that it conducted its own testing before deploying covered conductor. SCE is already moving forward with third-party lab testing to provide additional data on its effectiveness. SCE looks forward to further collaboration with the utilities, OEIS, and other stakeholders.

III. RISK ASSESSMENT AND MAPPING (SCE-21-01, SCE-21-02, SCE-21-11)

A. RSEs for PSPS and Other Enabling Wildfire Mitigation Activities Are Being Evaluated in the Risk-Based Decision-Making OIR

Issue SCE-21-01 states that SCE must provide RSE estimates for all PSPS-related activities.[16] SCE notes that work is underway in the Commission's Risk-Based Decision-Making OIR (R.20-07-013) in order to address the appropriate scoring of PSPS-related risk mitigations and other "enabling" wildfire mitigation activities. SCE will provide an update on any advancements or modifications adopted in the OIR proceeding when SCE submits its November 1, 2021 Progress Report.

B. SCE Supports Working Groups for RSE Calculations and Wildfire/PSPS Risk Modeling

Issue SCE-21-02 notes that RSE values vary across utilities, and points to large differences between PG&E's, SDG&E's, and SCE's values for covered conductor installation.[17] The IOUs are further required to collaborate through a working group to

[15] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, p. 9.
[16] Draft Resolution, p. 17.
[17] Action Statement on 2021 Wildfire Mitigation Plan Update – Southern California Edison, pp. 8-9.

develop a more standardized approach to the inputs for RSE calculations.[18] As noted in SCE's Reply Comments Regarding WSD's Revision Notice, RSEs are neither intended nor useful to compare with RSEs of prior WMPs (for the same utility) due to changes/improvements in risk modeling and the inputs to produce RSEs.[19] The same is true in terms of comparison with the RSEs produced by other IOUs using their own risk modeling and inputs unique to their company and service area. That said, SCE supports and looks forward to participating in the working groups to achieve more consistency in RSE calculations. SCE further notes that as part of these working groups, there should be consideration and discussion of how other factors, in addition to RSEs, importantly factor into the overall risk-informed decision-making process for mitigation selection and deployment.

C. SCE's Models Account for Correlations in Wind Speed, Ignitions and Consequence

Issue SCE-21-11 states it is "[u]nclear how SCE's ignition models account for correlations in wind speeds, ignitions, and consequence," and among other requirements, states SCE must fully demonstrate that its probability of ignition models accurately account for these factors.[20] For clarification, as discussed in its 2021 WMP, SCE's Wildfire Risk Reduction Model (WRRM) includes different components from probability of ignition (POI) to consequence of fire. SCE's POI model simulates the potential of an ignition caused by SCE overhead lines and equipment. The consequence of fire is modeled separately in Technosylva fire simulations. Wind speeds have been included in both the POI models and wildfire consequence models.[21]

SCE's POI model uses historical weather data consisting of hourly Atmospheric Data Solutions (ADS) weather model data to account for wind speed, wind direction, temperature, dew point, etc., to capture the impacts from weather conditions on potential faults and ignitions. Furthermore, SCE leveraged the same dataset in conjunction with SCE's pole-loading software program data to calculate the cumulative downforce to SCE's lines which included both wind speeds and wind directions as well as the relative wind direction to SCE's power lines.

For the consequence model, Technosylva uses selected worst weather days as an input to its fire simulation engine in which it leverages the same hourly ADS weather model data. The fire propagation engine uses the fuel type and condition in conjunction with weather conditions such as wind speed, wind direction, temperature, dew point etc., to model fire behavior and potential propagation. SCE will further describe these models, including how windspeed, ignition, and consequence factor into the models in its 2022 WMP Update.

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[18] Draft Resolution, pp. 18-19.
[19] SCE Reply Comments Regarding the Wildfire Safety Division's Revision Notice, pp. 1-2.
[20] Draft Resolution, pp. 27-28.
[21] SCE's 2021 WMP Update Revision – Clean, pp. 58-60.

IV. VEGETATION MANAGEMENT (SCE-21-08, SCE-21-09)

A. Identification of Vegetation by Species Is Impractical and Unnecessary

Issue SCE-21-08 requires SCE to (i) use scientific names of vegetation in reporting, (ii) add genus and species designation input capabilities in systems that track vegetation, (iii) identify the genus and species of a tree that caused an outage or ignition, (iv) teach tree species identification skills to Vegetation Management (VM) personnel, and (v) encourage VM personnel to identify species in all VM activities and reporting.[22] These requirements are unnecessary and add onerous tasks with unknown wildfire risk reduction benefits. For example, the only easily discernable difference between some pine tree species is the length of their needles. Thus, differentiating between the species of trees would be an extremely time-consuming exercise for even a well-experienced certified arborist. Given that the costs, benefits, and level of effort required to track classification of vegetation to this degree have not been evaluated or considered as part of this process, Energy Safety should eliminate this requirement from SCE's Action Statement. As SDG&E correctly noted, "[s]ome genera, such as eucalyptus, include hundreds of individual species, many of which have very similar growth patterns and failure rates. Due to these similarities in species type, classification at the species level would be unnecessary and would not result in the modification to the approach in management."[23] SCE agrees with this assessment and recommends this requirement be removed. Alternatively, SCE supports conducting a pilot to track the genus and species of a smaller subset of vegetation to study the potential benefits and associated costs of such an effort.

B. The Draft Action Statement Incorrectly Characterizes SCE's Inspection Documentation Procedures

The "Additional Issues and Remedies" listed in the Draft Action Statement identify issues that must be addressed in SCE's 2022 WMP Update. In providing context for one such additional issue, the Draft Action Statement states: "Energy Safety is confused as to why SCE would not document an inspection, even if the inspection did not result in a 'prescription;' all inspections, regardless of result, should be documented."[24] The remedy identified is for SCE to document all inspections of exception trees.[25] For clarification, all inspections are documented. SCE performs annual routine inspections and documents each tree inspected. Supplemental inspections are conducted in between annual inspections, and rather than documenting each tree inspected again through this process, SCE documents both the geographic areas where supplemental inspections were performed and the trees identified therein that require mitigation. As such, supplemental inspections are documented, just not at the same detailed level as routine inspections. Given that SCE does document each

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[22] Draft Resolution, pp. 25-26.
[23] SDG&E Comments to Draft Resolution Ratifying the Wildfire Safety Division's Approval of SDG&E's 2021 Wildfire Mitigation Plan Update, pp. 4-5.
[24] Draft Action Statement, p. 71.
[25] Draft Action Statement, p. 72.

tree during its annual routine inspections and the fact that supplemental inspections are also documented, this requirement should be removed from SCE's Action Statement.

C. SCE Intends to Produce Quantitative Targets or Milestone-Based Goals for Twelve Vegetation Management Activities

Issue SCE-21-09 requires SCE to define quantitative targets for all VM initiatives in Table 12, or justify why quantitative targets are not applicable and define goals within the initiative and timelines to achieve those goals.[26] Based on a reassessment of SCE's VM initiatives, SCE will be able to produce program goals/targets for 12 initiatives, including quantitative targets for approximately nine initiatives and milestone-based goals for three initiatives. Of the 20 WMP VM initiatives in Table 12, the remaining eight initiatives do not lend themselves to targets or milestone-based goals. For example, as part of "Improvement of Inspections," SCE has implemented plans to improve the quality and consistency of inspections performed around its transmission and distribution systems to ensure vegetation is maintained in accordance with regulatory requirements.[27] SCE may identify locations where more frequent inspections are warranted and adjust inspection cycles or inspection methodologies to address potential improvement opportunities. Therefore, it would not be feasible to set a target as any program changes are based on evolving needs. For the 12-program target/goal-based initiatives, SCE will produce goals and timelines per the Draft Resolution requirement.

V. GRID OPERATIONS AND PROTOCOLS

A. SCE's Partnerships with Fire Agencies Obviates the Need for Its Own On-Call Ignition and Suppression Resources

The Draft Action Statement states as an issue that SCE does not have on-call ignition prevention and suppression resources, instead relying on fire agency partners for fire suppression activity.[28] For clarification, while SCE does not have its own on-call ignition prevention and suppression staff, its partnerships with Los Angeles, Ventura and Orange County Fire Departments have created a Quick Reaction Force of day/night capable helicopters. While these suppression assets are under the control of County fire agencies and not "on call" for SCE to dispatch at will, SCE has funded the standby costs for these assets to be available as needed throughout fire season. These resources are no more than 30 minutes away from 97% of Tier 2 and Tier 3 HFRA within SCE's territory. This is an effective and efficient method to improve suppression capabilities and speed response time without the need for SCE to staff its own fire suppression force. Per the requirement in the Draft Action Statement, SCE will describe its plans to continue and/or expand such partnerships in its 2022 WMP Update.

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[26] Draft Resolution, p. 26.
[27] SCE's 2021 WMP Update Revision – Clean, p. 266.
[28] Draft Action Statement, p. 77.

VI. ADDITIONAL UPDATES FOR 2022 WMP UPDATE

A. The Draft Resolution Mischaracterizes SCE's C-Hook Replacement Process

The Draft Action Statement asserts that "SCE's current estimate of C-Hooks in its HFTD areas is based on statistical modeling, not inspections. Additionally, SCE does not detail how it is determining the order in which C-Hooks are replaced. Therefore, it is not possible to determine if SCE is appropriately considering the condition of each of its C-Hooks in determining the highest priority areas for replacement."[29] This assertion is incorrect. SCE has already performed inspections to identify existing C-Hooks in its HFRA, and did not rely on modeling to determine the number.

Furthermore, the Draft Action Statement requires SCE to perform inspections to identify C-Hooks, prioritize the order in which C-Hooks are replaced, and develop a plan to assess the condition of existing C-Hooks.[30] This requirement is unnecessary and should be removed. As described above, SCE has already performed inspections to identify C-Hooks in its HFRA. In addition, because SCE has a relatively low number of C-Hooks in its HFRA (approximately 60 of which will be replaced as part of SH-13, with the remainder being replaced via planned maintenance or planned project-related work), and because it is difficult to visually assess the condition of C-Hooks, SCE has determined the best course of action is to quickly replace all C-Hooks that are identified via inspections. As noted in its 2021 WMP, SCE "will strive to…remov[e] all C-Hooks in [its] HFRA…by the end of the year. In 2022, SCE will complete any C-Hook replacement work that may carry over from 2021."[31]

B. SCE Already Utilizes Drones for Its Aerial Inspections Program

The Draft Action Statement states "SCE's existing drone inspection pilot programs appear to show promising results as an effective and cost-effective method of inspection. However, SCE does not provide details as to how it intends to move forward with its drone inspection programs."[32] For clarification, SCE already uses drones extensively in its aerial inspections programs and will continue to do so. The Draft Action Statement seemingly does not account for this, and assumes SCE only utilizes drone technology for pilots such as the Advanced Unmanned Aircraft Systems (UAS) study conducted to develop Beyond Visual Line of Sight (BVLOS) capability to use on circuit patrols. Nevertheless, SCE will report on its existing drone inspection and pilot programs in its 2022 WMP Update.

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[29] Draft Action Statement, p. 63.
[30] Draft Action Statement, p. 63.
[31] SCE's 2021 WMP Update Revision – Clean, Pg. 227.
[32] Draft Action Statement, p. 63.

C. SCE Appropriately Employs Comprehensive Inspections and Maintenance Programs Rather Than Standalone Inspections Programs

The Draft Action Statement notes that SCE does not have separate inspection and maintenance programs for several items including covered conductor and hotline clamps. For each case, the Draft Action Statement requires SCE to provide supporting material to demonstrate existing programs effectively track, identify, repair, and replace the equipment.[33] SCE notes that inspections for these equipment are included in comprehensive assessments for all transmission and distribution grid assets. This approach maximizes resource allocation and risk spend efficiency for these inspections. Furthermore, the Draft Action Statement omits SCE's High Fire Risk Informed (HFRI) ground and aerial inspections in its "Progress over the past year" section.[34] The bulk of SCE's inspections for equipment such as covered conductor and hotline clamps are completed through these inspections. In 2020, SCE completed HFRI inspections for 199,050 distribution assets and 35,561 transmission assets in HFRA. SCE will discuss how inspections for equipment such as covered conductor and hotline clamps are incorporated in its comprehensive inspection and maintenance programs in its 2022 WMP Update.

In addition, Energy Safety asserts in Issue SCE-21-12, "SCE did not initially include vibration dampeners[35] in its covered conductor installations, and states that it is now retrofitting its existing covered conductor with vibration dampeners."[36] This statement fails to take into account SCE's demonstrated focus on continuous improvement and technological advancements. SCE stated in its 2019 WMP, "in covered conductor systems… vibration dampers may also be installed to reduce conductor fatigue."[37] SCE also stated its intention to expand its conductor resiliency effort with vibration damper applications for existing conductors by development of standard installation practices in 2019.[38]

SCE provided an update on its evaluation of vibration dampers in its 2020 WMP, stating, "SCE met the 2019 WMP goal of developing standard installation practices for Aeolian vibration dampers…While damper applications for bare wire have been heavily studied by the industry, damper applications for covered conductor have not. For this reason, dampers are not readily available for covered conductor."[39] SCE completed this phase of the alternative technology evaluation in 2020, reporting in its 2020 WMP Annual Report on Compliance (ARC) that it "completed the evaluation of damper technologies and published new standards incorporating vibration damper applications for both large and small diameter covered conductor in Q4. SCE's analysis validated

[33] Draft Resolution, pp. 15-16, pp.62-63.
[34] Draft Resolution, pp.60-61.
[35] SCE uses industry-standard terminology of vibration "dampers" in its WMP.
[36] Draft Action Statement, p. 62.
[37] SCE's 2019 WMP, p. 52.
[38] SCE tracked this activity in 2019 as Alternative Technology (AT)-4.1: Develop standard installation practices for Aeolian vibration dampers.
[39] SCE's 2020-2022 WMP, pp. 5-65 – 5-66.

that dampers help prevent conductor strain."[40] SCE has continually expressed its commitment to reducing the Aeolian (wind induced) vibration challenges associated with covered conductor, which has been identified via research and benchmarking.[41] As SCE has been evaluating the use of vibration dampers since 2019, Energy Safety should remove as a key "issue" that SCE "is now retrofitting its existing covered conductor with vibration dampeners" from Issue SCE-21-12. This retrofit is not due to an error nor oversight in maintenance, rather, it is the result of SCE's industry-leading research and development of vibration dampers for covered conductor.

D. Installation of Weather Stations Based on Expected Changes in Climate is Not Practical

The Draft Action Statement requires SCE to discuss how the present and future effects of climate change are potentially informing weather station outputs and placement.[42] This requirement is misguided and should be removed. As SCE discussed in response to Action SCE-14,[43] the effects of climate change should have no bearing on where SCE installs additional weather stations across its service territory. The impact of climate change on local wind speeds is very uncertain and thus *cannot* be used reasonably as a factor for weather station placement. Given that the main purpose for installing weather stations is to record hourly changes in meteorological parameters such as temperature, winds, and relative humidity at specific locations to inform and improve PSPS execution, it does not make sense to base a weather observing network on expected changes in climate. Furthermore, SCE's weather stations are placed strategically to observe maximum wind speeds to reduce PSPS risk through sectionalization. For these reasons, this requirement should be removed.

E. The Change Order Process Should Remove or Modify the Criteria for Reporting Changes in Spend Allocation

The Draft Action Statement sets forth the change order process used to make adjustments deemed significant to approved WMPs. SCE largely supports the proposed change order process; however, we recommend the criteria that would trigger a change order of: "[a] change that would result in an increase, decrease, or reallocation of more than $5 million constituting a greater than 10% change in spend allocation"[44] be removed or modified. As SDG&E correctly noted in its comments to the Draft Resolution approving its WMP, "…the WMP is not about cost recovery. While cost information is important as it relates to RSEs and comparing mitigations, costs included in the current year…WMPs are forecasts which can change for many reasons."[45] Furthermore, a change in cost spend allocation of 10% for a mitigation within the utility's overall

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[40] SCE's 2020 WMP Annual Report on Compliance, Attachment A, p. 12. SCE tracked this activity in 2020 as AT-4: Alternative Technology Implementation – Vibration Dampers.
[41] SCE's GRC 2021 Rebuttal Testimony, p. A152.
[42] Draft Action Statement, p. 46.
[43] SCE's 2021 WMP Update Revision – Clean, p. 521.
[44] Draft Action Statement, p. 107.
[45] SDG&E Comments to Draft Resolution WSD-019, p. 10.

portfolio may not be particularly significant with the ongoing planning and adjustments made throughout the year. Given that utilities must produce change orders for adjustments that reduce or increase risk reduction values of an initiative by more than 25%, and/or result in a radical shift in the strategic direction or purpose of an initiative, the requirement to produce a change order for a 10% shift in cost allocation should be removed. Alternatively, the threshold should be increased from 10% to 25% with a focus on scope, not cost, to align with capturing substantial modifications, consistent with the requirements around changes in risk reduction values and strategic direction.

VII. CONCLUSION

SCE appreciates the opportunity to submit its Comments on the Draft Resolution and looks forward to continued work with OEIS and stakeholders in critical wildfire mitigation work.

Sincerely,

//s//
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Southern California Edison

cc: Service List for R.18-10-007
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