BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) COMMENTS ON DRAFT RESOLUTIONS WSD-002 – WSD-009

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Pursuant to Resolution WSD-001, Southern California Edison Company (SCE) respectfully submits these Comments on the Wildfire Safety Division's (WSD) draft resolutions WSD-002 and WSD-004 ("Draft Resolutions") that were published May 7, 2020.

I. INTRODUCTION

SCE thanks the WSD for the timeliness of its Draft Resolutions. SCE put forward a comprehensive and detailed WMP that built on the successes and lessons learned from its 2019 WMP. SCE is working with local governments, first responders, and the general public as well as committing and reallocating significant resources to address the risk of wildfires and PSPS impacts.

The Commission provided 2020 WMP Guidelines (Guidelines) on December 16, 2019 for WMP filings on February 7, 2020.[1] Despite the aggressive timeline and expansive new requirements, SCE worked tirelessly and provided the required information in a timely manner, both in its initial filing and in data request responses and revisions. We were forthcoming about what information we could or could not provide and the corresponding reasons. SCE's diligence and transparency underscores SCE's commitment to working with the Commission and the WSD to mitigate wildfire risks in our service area.

As the WSD noted, SCE's WMP satisfied the requirements of Pub. Util. Code § 8386(c) and the WMP Guidelines.[2] Accordingly, SCE requests the Commission ratify WSD's approval as soon as possible. Such approval provides essential clarity and support for safety certification and wildfire risk mitigations underway or planned.

The Draft Resolutions contain some misinterpretations of SCE's WMP as well as misdirected focus on certain areas. SCE believes if these misunderstandings are addressed by the WSD in Resolution revisions it will more accurately reflect SCE's wildfire mitigation efforts. Accordingly, SCE seeks revisions and reclassifications of the additional requirements proposed in the Draft Resolution to account for data availability along with analytical relevance and applicability.

The Draft Resolutions identified 12 utility-wide and 22 SCE-specific "deficiencies" as part of its review. Many of these, however, are additional requirements identified for the first

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1 The WSD conducted three subsequent calls/meetings with the respondent utilities after the issuance of the Guidelines and released two clarification documents on January 15th and 29th providing further clarity and new requirements.

2 Draft WSD-004 at p. 52.

time in the Draft Resolutions, and not included in Pub. Util. Code § 8386(c), the original Guidelines or subsequent clarification documents. While SCE recognizes these new requirements may serve as improvements for future WMPs, they should not be considered deficiencies at this time. Though a few issues stemmed from misunderstandings (which SCE clarifies in these comments or agrees to provide the additional information in subsequent submissions as required by WSD), several should be reclassified as Class C to help improve future WMPs, and some should be modified and/or eliminated. Key areas that should be modified include:

- There are certain activities that are and should be included in SCE's WMP that do not directly reduce the risk of ignition. Utilities should not have to provide quantitative measures of risk analysis of those activities. SCE proposes other ways of measuring their effectiveness. (Guidance-1, 2, 5 and 6)
- Utilities and WSD should undertake a collaborative discussion to develop GIS data submission requirements for the 2021 WMP update that effectively consider data availability and system capabilities rather than including additional GIS data requirements as a Class B deficiency. (Guidance-10)
- SCE's WMP laid out high-level 10-year goals as required by the Guidelines and proposes elimination of this requirement as more detailed 10-year plans for wildfire mitigation would be speculative and subject to significant change. (Guidance-12)
- SCE can provide metrics on the effectiveness of its recruiting programs but will not be able to provide certain requested information on recruitment that is unavailable. (Guidace-11)

Table 1 below summarizes SCE's responses to the deficiencies, and Section II provides additional details for select issues. Proposed changes to the language of the Draft Resolutions are in Appendix A.

SCE's comments also include some observations and suggestions regarding the Wildfire Mitigation Capability Maturity Model and future WMP processes along with some proposed improvements for future WMP processes to facilitate a clearer understanding of WSD's objectives, data needs, and efficiency.

Table 1
Summary of SCE Responses for Deficiencies

Deficiency	SCE Proposed Modifications or Response	Rationale
Guidance-1, 2, 5, 6	• Limit to WMP "Augmented Wildfire Operations" that directly reduce wildfire risks, supplemented with other relevant information for the remaining "Augmented Wildfire Operations" • Reclassify from B to C	• Additional requirements over 2020 WMP Guidelines • Will facilitate SCE providing meaningful information
Guidance-3	• Will provide requested information. • Reclassify from A to C	• The condition requests description of each utility's prospective use of risk modeling and thus will have no bearing on wildfire mitigation initiatives in 2020
Guidance 4	• Will provide requested info. Also see SCE-3	• N/A
Guidance 7	• Will provide requested information.	• N/A

Deficiency	SCE Proposed Modifications or Response	Rationale
Guidance 8	• Will provide requested information.	• N/A
Guidance 9	• Reclassify from B to C	• Pilots generally do not significantly change on a quarterly basis
Guidance 10	• Edit requirement to collaborative process to identify GIS data needs, objectives, and current capabilities • Reclassify from B to C	• Additional requirement over 2020 WMP Guidelines • Utilities unable to commit to unknown needs and requirements
Guidance 11	• Remove requirements for metrics beyond those tracking effectiveness of recruitments • Limit to Veg Management for Class B	• Additional requirement over 2020 WMP Guidelines • Several metrics cannot be obtained or tracked consistently
Guidance 12	• Remove	• Additional requirement over 2020 WMP Guidelines, GRC or AB 1054 • Premature to have detailed 10-year plan
SCE-1	• Remove or reclassify from B to C	• SCE provided lessons learned in a different section of its 2020, as required by Guidelines
SCE-2	• Provide additional information that demonstrates SCE's outage cause determination and investigation program.	• SCE's interpretation of 2020 WMP Guidance template and preliminary 2019 data at the time of WMP filing left an incorrect impression.
SCE-3	• SCE makes quantitative commitments and is open to sharing approach for the circuit-level PSPS decision making and playbook	• Additional analysis that enables specific commitment recently completed
SCE-4	• SCE will provide correct calculation • Remove	• Misinterpretation of ignition reduction data provided by SCE
SCE-5	• Will provide requested information.	• N/A
SCE-6	• Will provide requested information	• N/A
SCE-7	• Will provide requested information	• N/A
SCE-8	• Will provide requested information	• N/A
SCE-9	• Remove or modify	• Note that PLP has been litigated and authorized in SCE GRCs since its 2015 GRC and is not a WMP activity
SCE-10	• Will provide requested information	• N/A
SCE-11	• Will provide requested information	• N/A
SCE-12	• Limit utility study to only when it goes beyond recommended clearance distances provided in Appendix E of General Order 95	• Recommended clearance distances provided in Appendix E of General Order 95 were established by the Commission in D.17-12-024.
SCE-13	• Will provide requested information • SCE disagrees with the characterization that SCE does not plan to advance its capabilities • Reclassify from A to C	• SCE is testing further integration of predictive and risk modeling in vegetation management and needs additional time to provide meaningful information
SCE-14	• Will provide requested information	• N/A
SCE-15	• Will provide requested information	• N/A
SCE-16	• Will provide requested information	• N/A
SCE-17	• Will provide requested information	• N/A
SCE-18	• Will provide requested information • SCE disagrees with WSD's characterization of SCE's maturity.	• SCE does not have one database, but does have a central data environment that supports data governance and advanced analytics
SCE-19	• Will provide requested information.	• Already shared detailed analysis in GSRP and SCE's 2021 GRC
SCE-20	• Will provide requested information	• N/A

Deficiency	SCE Proposed Modifications or Response	Rationale
SCE-21	• Will provide requested information	• N/A
SCE-22	• Will provide requested information	• N/A

II.
COMMENTS

A. Guidance 1, 2, 5, and 6: Utilities Should Not Have to Provide Quantitative Measures of Ignition Risk and Wildfire Consequence Mitigation of Individual Initiatives When It is Impractical to Do So

Draft WSD-002 requires utilities to break out its programs in Section 5.3 into individual initiatives, costs, description of effectiveness at mitigating ignition risk and wildfire consequence, and provide all data/metrics used to evaluate the effectiveness on ignition risk and wildfire consequence mitigation. SCE understands the WSD's desire for this information to determine the efficient allocation of resources. However, these recommended conditions exceed the Guidelines' requirements, would not necessarily provide relevant information to gauge the efficacy of wildfire mitigation initiatives, and would better serve future WMPs. SCE proposes an alternative approach that is both achievable and fulfills WSD's goals.

SCE has already described at length why providing effectiveness of initiatives in mitigating ignition risk and wildfire consequence is not possible or inadvisable for several activities in various other documents and won't do so in detail again here.[3] To summarize, many wildfire initiatives either do not directly mitigate ignition risk (e.g., [resource] allocation methodology development and application) or are traditional programs that have been performed for many years (e.g., vegetation management to achieve clearances around electric lines and equipment). It is factually erroneous that each activity in SCE's WMP reduces ignition risk or can be analyzed for risk reduction using the S-MAP risk model. Determinations of ignition risk mitigation effectiveness would be speculative at best and would not offer any additional insight into the activities' objectives or their effectiveness in meeting these objectives. The WSD appears to recognize this distinction in creating the two categories, "Standard Operations" and "Augmented Wildfire Operations," in Guidance-6.[4] But as stated above, even some "Augmented Wildfire Operations," such as PSPS Community Resource Centers, do not mitigate wildfire risk.

Further, utilities were not required by the Guidelines to provide separate quantitative measures of the effectiveness of initiatives in mitigating ignition risk and wildfire consequence. Imposing this requirement now is essentially extending the requirements and timeline of the 2020-2022 WMP process.

First, this requirement should be limited to Augmented Wildfire Operations only as the Standard Operations initiatives are not primarily driven by wildfire risks, though they may provide secondary wildfire risk mitigation benefits. Standard Operations are not part of SCE's WMP activities and are authorized in other proceedings. In fact, including Standard Operations can distort some analysis and cross-utility comparisons as not all the utilities included Standard

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[3] See SCE's Reply to Public Comments at pp. 7-8 and SCE's response to WSD data request SCE-43879-E-64.

[4] Also, SCE interpreted the Guidelines requirement to "identify whether the program/strategy is existing or new" as "Standard Operations" or "Augmented Wildfire Operations."

Operations as SCE did. For example, SCE's 2020-2022 WMP initiatives' spend per HFTD circuit mile is approximately $270 thousand or approximately 15% lower than that calculated by WSD if ONLY Augmented Wildfire Operations were taken into account. Second, for the Augmented Wildfire Mitigation initiatives where SCE did not provide a quantitative wildfire risk mitigation score in its 2020-2022 WMP, SCE proposes to provide a qualitative description of why that initiative is needed, including what alternatives were considered and why those alternatives were not implemented instead. Further, SCE proposes to provide, where practical, quantitative metrics that SCE will use to determine whether an initiative is effective. Such information should provide the means for WSD to determine and evaluate which wildfire initiatives are effective and why they are needed or appropriate. SCE believes this information would be more relevant for WSD in assessing the efficacy of wildfire mitigation initiatives.

Additionally, SCE followed the Guidelines and provided costs on individual initiatives and thus should not be required to provide it again. It is unclear why budgeting, accounting, and sub-accounts are required as the WMP process is not a cost-recovery proceeding. The cost data that SCE provided as part of its WMP filing should be sufficient for the WSD's purposes. Further, SCE will be more than eight months into deploying its 2020 WMP by the time the additional information requested in these conditions are due. This information would be better utilized in WSD's review of SCE's 2021 WMP update, and SCE suggests that Guidance 1, 2, 5 and 6 be reclassified to Class C. As such, SCE proposes the changes shown for Guidance-1, 2, 5, and 6 in Appendix A.

B. Guidance-10: Future Data Submissions Conforming to a Forthcoming Data Taxonomy and Schema Should Be Modified to a Class-C Condition and Data Requirements Should Be Identified Based On a Collaborative Process

Draft WSD-002 requires utilities to ensure future data submissions to the WSD adhere to the forthcoming data taxonomy and schema being developed by the WSD and provide quarterly reports detailing completed and forecast locations of grid hardening, vegetation management, and asset inspections, and analyses supporting the locations. SCE could help achieve WSD's goals with this data if it could better understand the purpose of the data and thus proposes a collaborative approach to achieve those goals. Currently, SCE cannot commit to submitting data in conformance with a currently unknown taxonomy and schema.[5] Each utility has different systems and business processes. There is limited data standardization and alignment that can be accomplished in a short period of time, particularly across IOUs. Further, such standardization may require system upgrades, new software, and/or changes to foundational business operations. SCE respectfully suggests that the WSD and utilities engage in a collaborative approach where a series of workshops are held so that utilities can understand WSD's need and use for specific data. If a utility's systems cannot support the format desired by WSD, alternatives can be discussed where WSD's needs are met within the constraints of that utility's systems. Such an approach will take some time to discuss and implement, but the first phase can be completed prior to the WSD issuing 2021 WMP update Guidelines. Accordingly, SCE recommends Guidance-10 be modified to a Class-C condition.

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[5] The Guidelines did not include any information on GIS schema or taxonomy and only initially became available with the first WSD clarification document on January 15, 2020. Additionally, WSD included additional schema requirements in data requests after the submission of WMPs.

C. Guidance-11: The Requirement to Track Training and Recruitment of Personnel Should be Modified

Draft WSD-002 requires utilities to provide a description and metrics to track effectiveness of its programs for recruitment and training of personnel. SCE understands that WSD is seeking information on utilities' resource constraints and the effectiveness of their efforts to address them. SCE requests that WSD clarify the scope of the personnel subject to this condition for Class B submission is limited to vegetation management personnel which was the scope of the Guidelines. Information on other specialized resource recruitment and training can be provided in future WMPs. Moreover, though SCE can provide descriptions of its training and recruitment programs, as well as the metrics it uses to track the effectiveness of those programs, SCE currently cannot provide some of the metrics requested such as percentage of recruits that are newly trained, percentage from out of state, and the percentage that were working for another California utility immediately prior to being hired as they are not readily available. SCE can describe which areas it is facing personnel constraints and the measures it is taking to address those constraints. If SCE can obtain this data in the future, SCE will inform the WSD and looks forward to working with stakeholders to determine the best set of metrics moving forward.

D. Guidance-12: The Requirement to Detail the Expected State of Wildfire Mitigation in 10 Years Should be Eliminated

Draft WSD-002 requires utilities to detail the expected state of wildfire mitigation in 10 years, including a year-by-year timeline. SCE understands this condition to be similar, and perhaps redundant, to the requirement in the Guidelines. Pursuant to the Guidelines in sections 4.1 and 5.1, SCE provided numerous long-term objectives and goals. This condition is not entirely clear in its requirements. For example, what exactly is the "state of wildfire mitigation?" Depending on the level of detail that is required, this condition could essentially expand the scope of the WMP from three to ten years. A ten-year horizon is highly speculative and subject to change due to many factors such as potentially modifying initiatives due to new and improved data and analytical capabilities, enhanced risk modeling or lessons learned from recently deployed initiatives, that year-by-year milestones with associated activities would have minimal, if any, utility. As such, SCE proposes that the condition be eliminated or, in the alternative, modified to shorten the scope to three years with more guidance on what is expected, and changed to a Class C.

E. Guidance-3: How a Utility Intends to Use Risk Modeling and Assessment Prospectively Will Not Impact WMP Initiatives in 2020 and Thus Should Be Changed to a Class-C Condition

The WSD states that, "Electrical corporations do not provide sufficient detail in their 2020 WMPs to demonstrate how they are leveraging risk models to target the highest risk portions of the grid." While SCE provided extensive description of how it developed and is leveraging risk models in section 4.3 of its WMP and the WSD noted the integration of risk analysis and assessment into inspections as a strength of SCE's WMP,[6] SCE can provide further information as requested by this Condition. However, as the Condition requests description of

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[6] *See* draft WSD-004 at p. 33.

each utility's prospective use of risk modeling and thus will have no bearing on wildfire mitigation initiatives in 2020, SCE proposes that this Condition be modified to Class-C.

F. Guidance-9: Quarterly Updates On Pilot Projects are Unnecessary and Thus Should Be Changed to a Class-C Condition

The WSD states that, "electrical corporations must evaluate each pilot or demonstration and describe how it will expand use of successful pilots." While SCE agrees with this sentiment, providing quarterly reports on the items listed in Guidance-9 will have minimal utility as there generally are not significant additions, changes, or updates to report on a quarterly basis. The information requested is more suited to an annual update and thus SCE proposes that this Condition be modified to Class-C.

G. SCE-4: WSD Compared Historical Ignitions Across SCE's Entire Service Area to Forecasted Ignitions in SCE's HFTD

WSD mistakenly noted that SCE predicted a 70% decrease in ignitions between 2019 and 2020 and required that SCE explain how it arrived at the forecast and why it is so much larger than the subsequent years' forecasts. This discrepancy likely originated from a comparison of Table 11, which lists historical ignitions across all of SCE's service area, to Table 31, which lists forecasted ignitions in high fire risk area (HFRA). The January 15, 2020 Clarification document specified that Table 11 should use the same format as the annual D.14-02-015 ignition report, which covers a utility's entire service area. Table 31, however, asks a utility to forecast its ignitions assuming its WMP initiatives are implemented according to plan, thus SCE provided forecasts of ignitions in HFRA, where WMP initiatives are actually being implemented. To clarify, as detailed in Table 18, SCE only had an average of 39.4 ignitions in HFRA over the years of 2015-2019, and thus is forecasting approximately a 12% drop in ignitions from those years to 2020, which is comparable to its forecast for subsequent years and similar in magnitude to the forecasts of the other IOUs. Accordingly, this Condition should be removed from the Draft Resolutions.

H. SCE-1: SCE Provided Its Lessons Learned Throughout Its WMP

WSD states that, "SCE does not provide sufficient discussion [of its lessons learned] in Section 2.1 [of its WMP]." Section 2.1 of the Guidelines is titled, "LESSONS LEARNED: HOW TRACKING METRICS ON THE 2019 PLAN HAS INFORMED THE 2020 PLAN" so SCE naturally tailored its discussion of lessons learned to relate to metrics, which the WSD acknowledged ("SCE provides an adequate discussion of tracking and progress in its use of metrics"). SCE described its non-metrics-related lessons learned throughout the WMP, as required by the Guidelines. For example, Section 5.1 of the Guidelines requires, among other things, "a summary of what major investments and implementation of wildfire mitigation initiatives achieved over the past year, any lessons learned,…" (emphasis added). As such, SCE's discussion of lessons learned related to 2019 initiatives are discussed in Section 5.1, not Section 2.1. Given that SCE did detail its lessons learned in the appropriate section of its WMP, SCE requests that the WSD delete this Condition or at a minimum, reclassify it to a Class C.

I. SCE-2: The Requirement For Additional Information About Near-Miss Data Collection Seems To Be Based On a Misunderstanding Of SCE's Data

In Draft WSD-002, the WSD apparently construed SCE's categorization of faults into the category "Other" as an indication that SCE did not know the cause of those faults. That is not

the case. As Tables 11a and 11b were attempting to capture key drivers of ignition probability, 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's "Other" category also included faults that did not fit into one of the table categories, such as faults caused by lightning or dig-ins. And while a subset of SCE's "Other" category were "No Cause Found," a significant number of these were momentary faults where the circuit was only momentarily de-energized. SCE regrets the incorrect impression created by the data provided in Tables 11a and 11b. Further, SCE's 2019 data provided on February 7, 2020 was preliminary and data validation on causes had not been completed The information SCE will provide in its Remedial Compliance Plan will update the data in Tables 11a and 11b, further clarify the cause of the faults in the last five years, and describe SCE's improved capability to identify the causes of faults.

J. SCE-9: The Requirement to Provide GIS Data on Pole Loading Program (PLP) Assessments Should Be Eliminated

Draft WSD-004 requires SCE to submit GIS files detailing areas where PLP assessments have been performed and where they will be performed. This is unnecessary and problematic for several reasons. First, PLP is not a wildfire mitigation initiative, much less an "Augmented Wildfire Operation." It is a program to meet GO 95 compliance that was thoroughly described, litigated, and adjudicated in SCE's 2015 and 2018 General Rate Cases. As such, PLP assessments are outside the scope of the WMP. Second, nearly all of the poles in SCE's HFRA have been assessed. The remaining poles are difficult to access for various reasons including, for example, customer access issues, seasonal weather constraints, and conditions that require a drone to collect the information for pole loading calculations. Further, SCE's vendor plans have poles categorized by district location, not latitude and longitude coordinates. Accordingly, this Condition should be eliminated or, at a minimum, be modified to only require GPS data (not GIS, as the taxonomy and schema are still underdetermined) for assessments completed in the prior quarter.

K. SCE-12: The Study on Expanded Clearances Should Only Apply to Distances Beyond Those Recommended by Appendix E of General Order 95

The WSD notes in draft WSD-004 that SCE did not provide evidence of the effectiveness of increased vegetation clearances and thus should coordinate a study with the other IOUs. However, SCE follows the direction provided by Appendix E of General Order 95 which states that the expanded clearances "should be established, at time of trimming, between the vegetation and the energized conductors and associated live parts where practicable." These expanded clearances were established by the Commission in D.17-12-024. Indeed, question E.IV.a of the maturity model survey considers exceeding minimum vegetation clearances to be the most mature state. As such, SCE should not be required to provide evidence supporting the Commission's recommendations. SCE proposes instead that it coordinate with the other IOUs on a study of the effectiveness of increased vegetation clearances beyond those recommended by Appendix E of General Order 95. Currently, SCE does not trim beyond the Appendix E recommended distances but would consider doing so if there were evidence supporting its effectiveness.

L. SCE-13: This Condition Does Not Accurately Consider SCE's Forecast Advancements to Its Vegetation Management Programs

The WSD states that "SCE does not plan on advancing its current capabilities in vegetation management and inspections."[7] This observation is an unfortunate and erroneous byproduct of the inherent limitations of the maturity model survey. Due to the narrow limits of the available answers, SCE could not demonstrate that it would improve its vegetation management program from its current state. For example, survey question E.IV.a inquired about SCE's progression in achieving clearance around lines and equipment. The only option above SCE's current state was to exceed "minimum statutory and regulatory clearances around all lines and equipment." There may be situations where SCE cannot exceed minimum clearances for operational and/or legal reasons (e.g., no permission from property owner) and thus it could not demonstrate improvement even for a best-in-class VM program. However, SCE is currently seeking to achieve the expanded clearances recommended by Appendix E of General Order 95 for its distribution system in HFRA. Another example was survey question E.II.c, which inquired about the use of predictive modeling of vegetation growth to schedule inspections. Although SCE may not currently have plans to use this precise type of predictive modeling for scheduling vegetation inspections, SCE does intend to further integrate other types of risk modeling to prioritize vegetation patrols and hazard tree assessments. The rigid rubric of the maturity model survey questionnaire simply did not allow for SCE to demonstrate its plan for improving its vegetation management program.

SCE continues to advance its vegetation management program in many aspects and SCE looks forward to sharing these with WSD, but notes that the details requested are additional to 2020 WMP Guidelines previously provided and WSD's interpretation of SCE's responses to the maturity model survey should not rise to the level of a Class A. Accordingly, SCE recommends that SCE-13 be modified to a Class C Condition.

M. SCE-19: SCE Provided Sufficient Information Justifying its Investment in Covered Conductor

The WSD states, "SCE does not sufficiently justify the relative resource allocation of its WMP initiatives to its covered conductor program with any quantifiable risk reduction information." SCE has provided extensive information on covered conductor in other proceedings, such as the Grid Safety and Resiliency Application and its 2021 General Rate Case.[8] Covered conductor is the single most effective measure at expeditiously reducing near and long-term wildfire risk on SCE's electric system. SCE's current risk analysis suggests that wildfire risk can be reduced by over 60% through its proposed deployment of covered conductor. While SCE believes it provided sufficient information in its 2020-2022 WMP demonstrating the effectiveness of covered conductor at mitigating a wide array of ignition risk drivers with a much smaller price tag than undergrounding, SCE can provide more information as requested.

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[7] However, the WSD also notes, "in examining the supporting details like its survey question responses, SCE's maturity assessment reveals projected growth across various capabilities." Draft WSD-04 at p. 50.

[8] A.18-09-002 and A.19-08-013, respectively.

N. Guidance-4 and SCE-3: SCE Will Commit to Quantified PSPS Reductions

In draft WSD-04, the WSD notes that SCE makes no quantitative commitments to PSPS reduction. Though SCE clearly indicated its commitment to reducing frequency, scope and duration of PSPS, at the time of WMP submission, consistent with the Guidelines requirements, SCE could not and was not required to provide corresponding quantification. SCE has recently completed additional analysis of 2019 PSPS events and the improvements that have been implemented. Despite the Guidelines not requiring SCE to make PSPS-related "commitments," andthe WSD recognizing that, "SCE has made progress on limiting the areas impacted by the PSPS events," SCE expects, under conditions similar to 2019 including weather, access to resources, and other key factors, a significant reduction in frequency and duration of outages for up to 40% of customers who experienced de-energization during the 2019 PSPS events.[9] This commitment is based on targeted grid upgrades (e.g., sectionalization and covered conductor) and development of SCE's switching playbook. SCE is also amenable to sharing its approach for the circuit-level PSPS decision making and operational playbook.

O. WSD's Wildfire Mitigation Capability Maturity Model Needs to Be Shared and Refined Transparently

SCE continues to support a Wildfire Mitigation Capability Maturity Model (CMM) to "help to identify and share best practices amongst the utilities and to establish a continually improving suite of best practices and lessons learned to combat the growing risk of utility-caused wildfires."[10] We understand and appreciate that the first maturity model was developed under a compressed time constraint for the purpose of including in the ALJ Ruling to evaluate utilities' wildfire mitigation capabilities. The inaugural process did not allow for incorporation of participant comments or the benefit of receiving detailed clarifications from the WSD. This posed significant challenges as many questions in the survey are either subject to interpretation or did not align with how SCE approaches wildfire mitigation specifically, and grid design and operations broadly. Regardless, SCE put in significant effort to accurately respond to the maturity model survey and provided an accompanying document with comments about our interpretation and the basis of our response to each question.

WSD's assessment seems to have relied on an automated maturity rubric that is not transparent about the minimum requirements for levels 0 to 4 for each capability, the rationale behind establishing the minimum requirements, how the responses to several questions for each capability was translated to a score, or if any information other than merely the numerical survey responses (such as narratives in SCE's WMP and survey response comments) were even considered while determining the scores. As just one example, SCE was scored 0 for 2020 and 2023 levels (below regulatory requirements or expected standards) for Grid Design for Minimizing Ignition Risk. At face value, such scores are unjustified and clearly a misrepresentation given the grid hardening and sectionalization work SCE has accomplished for years, has accelerated since 2017, and has forecasted for the near future. WSD's summary (p. C-4) says "SCE's grid design meets minimum G095 requirements and loading standards in HFTD

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[9] This commitment assumes no impacts due to COVID-19.

[10] Dec. 16, 2019 Administrative Law Judge's Ruling on WMP, Attachment 3 (Utility Wildfire Mitigation Maturity Model), p. 2.

areas," yet it was assessed at below regulatory standards. WSD notes that the score reflects SCE not taking wildfire risks into account when routing of new portions of grid. Routing is but one part of effective grid design and SCE's response clarifies the various factors that SCE does consider.[11]

For an effective CMM, it is imperative that the expectations for each maturity level for each capability is clear and the translation of survey responses to scoring is transparent. SCE recommends a public process working with the WSD to modify and refine this survey and the scoring mechanism for subsequent cycles to better align with a shared understanding of the necessary evolution of wildfire mitigation capabilities in California. Greater clarity about the survey purpose and application over time will be essential as SCE continues to look for ways to improve its own wildfire mitigation and PSPS resilience capabilities.

As SCE mentioned in its WMP filing, it is also critically important to note that the maturity model assumes moving beyond minimum regulatory requirements. An assessment of the current regulatory structure and processes for scope and funding approval of risk mitigation activities to achieve higher levels of maturity is necessary as well.

P. Future WMP Processes Needs Modifications to Facilitate Effectiveness and Efficiency

In future WMPs, SCE hopes to improve its efficiency and ability to provide WSD relevant information to facilitate their review of our WMPs. Receiving expanded new requirements less than two months before WMP submittals (over end of the year when resources were constrained) posed significant challenges. In addition, the objectives for certain data requested were unclear. Though SCE provided what it considered would be responsive, it led to additional requests and misunderstandings.

SCE makes the following recommendations for the 2021 WMP update.

- Regular and ongoing collaboration and discussions with WSD starting mid-June 2020 on WSD's objectives and data needs. For example, it would be beneficial to discuss GIS data needs and formats so that utilities can provide the best available data within the current data and system constraints. Similarly, if SCE understood that categorization of near misses was to evaluate a utility's capability of identifying causes as opposed to providing information about causes that are associated with ignitions, SCE could have elaborated or provided relevant explanations.
- During these collaboration meetings, SCE would like to have an opportunity to share our operational considerations, approach to wildfire mitigation capabilities, and how scope and costs are tracked. This exchange, we believe, will not only provide

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[11] SCE's strict interpretation of the questions led to a numerical selection, but SCE also provided the following explanation: "Line routes are determined primarily by customer site specifics, future load growth, local ordinances, public streets, existing and planned Right-of-Ways and easement availability. Once the route has been identified, wildfire risk is taken into account when applying the design standards to ensure that the planned new construction is reducing wildfire risk to the greatest extent possible. Examples of such design standards choices include the use of covered conductor, FR poles and protection devices. Route selection for new construction of distribution lines does not take into consideration wildfire risk at this time."

relevant background regarding our proposed WMP, but also help with developing templates and guidelines for the next WMP submission that are meaningful to the WSD and the utilities. There were several conversations between the WSD, other CPUC staff, and SCE post-filing. We strongly recommend that these discussions start early to have a shared understanding of WMP submittal and review expectations.

- SCE proposes that WSD provide and the CPUC finalize new Guidelines by the third quarter of 2020 to have sufficient time to compile the necessary information.
- SCE also requests flexibility in narrative format required in WMP submissions to avoid fragmented explanations. For example, risk analysis and its utilization in decision making was split into several areas leading to confusion about how SCE performs risk analysis and utilizes it in decision making on work scope and resource allocation. An upfront discussion on risk analysis and methods and decision-making framework, with how each subsequent activity-specific narrative on how it feeds or uses the risk analysis, will elucidate utility approaches more effectively.

III.
CONCLUSION

SCE appreciates the opportunity to provide these comments on the draft resolutions and respectfully requests the WSD implement the modifications to the Draft Resolutions as provided herein. Specific changes to the language of the Draft Resolutions are provided in Appendix A.

Respectfully submitted,

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Appendix A

Proposed Modifications to Draft Resolutions WSD-002 and WSD-004

Proposed Modifications to Draft WSD-002

Condition (Guidance-1, Class ~~B~~C): In its 2021 annual WMP update ~~first quarterly report~~, each electrical corporation shall provide the following:

i) Its calculated reduction in ignition risk for each Augmented Wildfire Operations initiative in its 2020 WMP that reduces ignition risk;

ii) Its calculated reduction in wildfire consequence risk for each Augmented Wildfire Operations initiative in its 2020 WMP that reduces ignition risk; ~~and~~

iii) The risk models used to calculate (i) and (ii) above~~.~~; and

iv) For the Augmented Wildfire Operations initiatives in its 2020 WMP that do not reduce ignition risk, each electrical corporation shall provide a qualitative description of why that initiative is needed and quantitative metrics, where practicable, to measure the effectiveness of those initiatives.

Condition (Guidance-2, Class ~~B~~C): In its 2021 annual WMP update ~~first quarterly report~~, each electrical corporation shall provide the following:

i) All alternatives considered for each grid hardening or vegetation management Augmented Wildfire Operations initiative in its 2020 WMP;

ii) All tools, models, and other resources used to compare alternative initiatives identified pursuant to (i) above;

iii) How it quantified and determined the risk reduction benefits of each grid hardening or vegetation management Augmented Wildfire Operations initiative that mitigates wildfire ignition risk; and

iv) Why it chose to implement each grid hardening or vegetation management Augmented Wildfire Operations initiative over alternative options.

Condition (Guidance-3, Class ~~A~~C): Each electrical corporation shall submit in its ~~remedial correction plan (RCP)~~ 2021 annual WMP update the following:

i) How it intends to apply risk modeling and risk assessment techniques to each initiative in its WMP, with an emphasis on much more targeted use of asset

management, vegetation management, grid hardening and PSPS based on wildfire risk modeling outputs;

ii) Identify all wildfire risk analyses it currently performs (including probability and consequence modeling) to determine which mitigation is targeted to circuits and assets where initiatives will provide the greatest benefit to wildfire risk reduction;

iii) A timeline to leverage its risk modeling outputs to prioritize and target initiatives and set PSPS thresholds, including at least asset management, grid operations, vegetation management, and system hardening initiatives;

iv) How it intends to incorporate future improvements in risk modeling into initiative prioritization and targeting processes; and

v) How it intends to adapt its approach based on learnings going forward.

Condition (Guidance-5, Class ~~B~~C): In its 2021 annual WMP update ~~first quarterly report~~, each electrical corporation shall:

i) Break out its programs outlined in section 5.3 into individual initiatives;

ii) Report its spend on each individual initiative;

~~iii) Describe the effectiveness of each initiative at reducing ignition probability or wildfire consequence;~~

iv) List all data and metrics used, where practical, to evaluate effectiveness of Augmented Wildfire Operations initiatives ~~described in (iii)~~, including the threshold values used to differentiate between effective and ineffective initiatives; and

~~v) Provide the information required for each initiative in section 5.3 of the Guidelines.~~

Condition (Guidance-6, Class ~~B~~C): In its 2021 annual WMP update ~~first quarterly report~~, each electrical corporation shall:

i) Clearly identify each initiative in Section 5.3 of its WMP as "Standard Operations" or "Augmented Wildfire Operations;"

~~ii) Report WMP required data for all Standard Operations and Augmented Wildfire Operations;~~

iii) Confirm that it is budgeting and accounting for WMP activity of each initiative; and

~~iv) Include a "ledger" of all subaccounts that show a breakdown by initiative.~~

Condition (Guidance-9, Class ~~B~~C): In its ~~quarterly report~~ 2021 annual WMP update, each electrical corporation shall detail:

i) All pilot programs or demonstrations identified in its WMP;

ii) Status of the pilot, including where pilots have been initiated and whether the pilot is progressing toward broader adoption;

iii) Results of the pilot, including quantitative performance metrics and quantitative risk reduction benefits; and

iv) A proposal for how to expand use of the technology if it reduces ignition risk materially.

Condition (Guidance-10, Class ~~B~~C): Electrical corporations shall ~~ensure that all future data submissions to~~ participate in a series of workshops with the WSD and interested parties to determine a suitable ~~adhere to the forthcoming~~ data taxonomy and schema ~~currently being developed by the WSD~~ for future data submissions beginning with the 2021 annual WMP update. ~~Additionally, each electrical corporation shall file a quarterly report providing that detail:~~

~~i) Locations where grid hardening, vegetation management, and asset inspections were completed over the prior reporting period, clearly identifying each initiative and supported with GIS data;~~

~~ii) The type of hardening, vegetation management and asset inspection work done, and the number of circuit miles covered, supported with GIS data;~~

~~iii) The analysis that led it to target that specific area and hardening, vegetation management or asset inspection initiative; and~~

~~iv) Hardening, vegetation management, and asset inspection work scheduled for the following reporting period, with the detail in (i) – (iii).~~

Condition (Guidance-11, Class B): In its first quarterly report, each electrical corporation shall detail:

i) A listing and description of its programs for recruitment and training of vegetation management personnel~~, including for vegetation management~~;

ii) A description of its strategy for direct recruiting and indirect recruiting via contractors and subcontractors; and

iii) Its metrics to track the effectiveness of its recruiting programs~~, including metrics to track the percentage of recruits that are newly trained, percentage from out of state, and the percentage that were working for another California utility immediately prior to being hired~~.

~~Condition (Guidance-12, Class B): In their first quarterly report, each electrical corporations shall detail:~~

~~i) Its expected state of wildfire mitigation in 10 years, including 1) a description of wildfire mitigation capabilities in 10 years, 2) a description of its grid architecture, lines, and equipment;~~

~~ii) A year-by-year timeline for reaching these goals;~~

~~iii) A list of activities that will be required to achieve this end goal; and~~

~~iv) A description of how the electrical corporation's three year WMP is a step on the way to this 10-year goal.~~

Proposed Modifications to Draft WSD-004

Either delete in its entirety or modify as follows: Condition (SCE-1, Class ~~B~~C): In its 2021 annual WMP update ~~first quarterly report~~, SCE shall:

i) List and describe the lessons learned from implementation of its 2019 WMP;

ii) Describe how the lessons learned in 2019 shaped SCE's 2020 WMP; and

iii) Describe the actions SCE has taken or plans to take to ensure the lessons learned in 2019 improve its decision making process when it comes to selection and prioritization of WMP programs and initiatives.

~~Deficiency (SCE-4, Class B): Risk reduction estimate requires further detail. SCE projects high confidence in the effectiveness of its initiatives, projecting a 70% decrease in ignitions between actual 2019 ignitions and projected 2020 ignitions (assuming five-year historical weather conditions, as required in Table 31 of the 2020 WMP Guidelines). SCE further projects an approximately 9-10% annual decrease in ignitions from 2020 through 2022 (also assuming fiveyear historical weather conditions). SCE does not provide enough evidence regarding the deployment of its programs and historical effectiveness of these programs to substantiate this estimate. This is particularly concerning with respect to SCE's covered conductor program. SCE plans to allocate 42% of plan spend to this program and ramp up deployment rapidly, spending 70% more in 2022 than in 2020.~~

~~Condition (SCE-4, Class B In its first quarterly report, SCE shall explain:~~

~~i. how it arrived at these estimates, including all assumptions and calculations used;~~

~~ii. why it estimates a significant drop in 2020 with far less significant drops in 2021 and 2022 when planned spend remains relatively consistent and SCE plans on significantly ramping up covered conductor installation in 2021 and 2022;~~

~~iii. how it expects 2020 weather conditions to compare to 5-year historical average weather conditions;~~

~~iv. how it reconciles its estimates for 2020 with observed ignitions in 2019; and~~

~~v. specifically how each of its initiatives contributes to risk reduction, including a breakdown of how much each initiative contributes to this reduction across each year.~~

Either delete in its entirety or modify as follows: Condition (SCE-9, Class B): In a quarterly report, SCE shall submit ~~GIS files~~ longitude and latitude coordinate information detailing:

~~i)~~ areas where PLP assessments have been completed during the prior reporting period~~;~~ ~~and~~

~~ii) areas where PLP assessments are planned for the following quarter.~~

Condition (SCE-12, Class C): SCE shall coordinate with other large electrical corporations to conduct a study detailing the effect of increased vegetation clearances beyond those provided in Appendix E of General Order 95 on vegetation caused outage and ignition probabilities. This study shall evaluate the impact, separately, on vegetation caused outage and ignition probability as a function of clearance distance and be attached to its 2021 WMP.

Condition (SCE-13, Class ~~A~~C): SCE shall provide a detailed plan in its annual 2021 WMP addressing ~~file a Remedial Correction Plan (RCP) to provide a detailed plan for addressing~~ the following:

i) how it uses risk models and their outputs to identify and prioritize vegetation management work in areas that provide the largest reduction in utility ignition risk;

ii) whether and how it targets VM work in areas that are historically prone to vegetation-caused outages and ignitions;

iii) what measures and metrics it uses to track the effectiveness and efficiency of its vegetation management work; and

iv) how it plans to integrate and leverage new technology to enhance its current vegetation inspection and management efforts.