PUBLIC UTILITIES COMMISSION

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January 8, 2021

Wildfire Safety Division Evaluation of Southern California Edison Company's First Quarterly Report

The Wildfire Safety Division (WSD) finds that Southern California Edison Company's (SCE) First Quarterly Report (QR) is Insufficient. WSD reviewed SCE's QR in accordance with guidance set out in Resolution WSD-002, Resolution WSD-004, and the WSD letter titled "Guidance on the Remedial Compliance Plan & Quarterly Report Process Set Forth in Resolution WSD-002," provided to electrical corporations on July 17, 2020.¹

1. Introduction

These findings act on the First Quarterly Report (QR) submitted by SCE on September 9, 2020. QR submittals were required in the Wildfire Safety Division's (WSD) "Conditional Approval" of SCE's 2020 Wildfire Mitigation Plan (WMP). QRs were required to address all Class B deficiencies identified by the WSD in its review of SCE's 2020 WMP. In this document, the WSD issues its determination of whether SCE's QR is "Sufficient" or "Insufficient." In accordance with the letter titled "Guidance on the Remedial Compliance Plan & Quarterly Report Process Set Forth in Resolution WSD-002" (RCP & QR Guidance Letter) issued by the WSD on July 17, 2020, if a QR is deemed "Sufficient" no further action related to the QR is required; however, in the event that a QR is found "Insufficient," the WSD may provide further direction on actions SCE must take to deliver a sufficient QR. The WSD may also recommend potential enforcement action.

The WSD finds that SCE's QR is Insufficient. SCE was required to satisfy the Class B deficiencies shown in Table 1 and set forth in Resolution WSD-002 and Resolution WSD-004.

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¹ https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/WSD/WSD%2 0Guidance%20Statement%20on%20RCP%20QP%2020200717.pdf

Table 1: Class B Deficiencies from SCE's 2020 WMP

Deficiency/Condition No.	Class	Deficiency Title	Sufficiency Finding	
Guidance-1	В	Lack of risk spend efficiency (RSE) information	Insufficient	
Guidance-2	В	Lack of alternatives analysis for chosen initiatives	Sufficient	
Guidance-4	В	Lack of discussion on PSPS impacts	Insufficient	
Guidance-5	В	Aggregation of initiatives into programs	Sufficient	
Guidance-6	В	Failure to disaggregate WMP initiatives from standard operations	Sufficient	
Guidance-7	В	Lack of detail on effectiveness of "enhanced" inspection programs	Insufficient	
Guidance-9	В	Insufficient discussion of pilot programs	Insufficient	
Guidance-10	В	Data issues - general	Deferred ²	
Guidance-11	В	Lack of detail on plans to address personnel shortages	Sufficient	
Guidance-12	В	Lack of detail on long-term planning	Sufficient	
SCE-1	В	Lessons learned not sufficiently described.	Insufficient	
SCE-3	В	Failure of commitment.	Insufficient	
SCE-4	В	SCE risk reduction estimation requires further detail.	Sufficient	
SCE-5	В	Detailed timeline of WRRM implementation not provided.	Insufficient	
SCE-6	В	SCE lacks sufficient weather station coverage.	Insufficient	
SCE-7	В	Does not describe whether fire- resistant poles were factored into risk analysis	Sufficient	
SCE-8	В	Lack of detail on hotline clamp replacement program.	Insufficient	
SCE-9	В	Lack of detail regarding Pole Loading Assessment Program.	Sufficient	
SCE-10	В	Lack of detail on effectiveness of inspection program QA/QC.	Insufficient	

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² The WSD is separately assessing the quality of geographic spatial information (GIS) data submissions required by Guidance-10, which will be addressed in GIS data quality control (QC) reports for each respondent electrical corporation.

Deficiency/Condition No.	Class	Deficiency Title	Sufficiency Finding
SCE-11	В	Lack of explanation around shift to risk-based asset management.	Sufficient
SCE-14	В	SCE relies only on growth rate to identify "at-risk" tree species.	Insufficient
SCE-15	В	Lack of detail on how SCE addresses fast-growing species.	Insufficient
SCE-17	В	Details not provided for collaborative research programs.	Insufficient
SCE-18	В	Discussion of centralized data repository lacks detail.	Sufficient
SCE-19	В	SCE does not sufficiently justify the relative resource allocation of its WMP initiatives to its covered conductor program.	Insufficient
SCE-20	В	Potential notification fatigue from frequency of PSPS communications.	Sufficient
SCE-21	В	Lack of sufficient detail on sharing of best practices.	Sufficient
SCE-22	В	SCE does not describe resources needed on fuel reduction efforts.	Sufficient

Due to the WSD's determination that PG&E's QR is Insufficient, SCE is required to address all Actions identified in Section 5.1 of this document in its 2021 WMP Update or, if not possible to meet this deadline, in a supplement filing to its 2021 WMP Update submitted no later than February 26, 2021.

2. Background

On February 7, 2020, electrical corporations submitted their 2020 WMPs in accordance with the 2020 WMP Guidelines issued through an Administrative Law Judge (ALJ) Ruling on December 16, 2019. Pursuant to its statutory mandate, the WSD reviewed and issued its disposition of electrical corporations' 2020 WMPs via the 2020 WMP Resolutions.³ Upon review of electrical corporations' 2020 WMPs, the WSD identified several elements that were missing or inadequate in the filings. Each of these issues was identified as a "Deficiency." A corresponding "Condition," intended to remedy the identified deficiency, was imposed on the electrical

³ These included Resolutions WSD-002, WSD-003, WSD-004, WSD-005, WSD-007, WSD-008, WSD-009, and WSD-010.

corporation as part of the WSD's "Conditional Approval" of 2020 WMPs. Each deficiency and associated condition were categorized into one of the following classifications, with Class A being the most serious:

- Class A Aspects of the WMP are lacking or flawed;
- Class B Insufficient detail or justification provided in WMP; and
- Class C Gaps in baseline or historical data, as required in 2020 WMP Guidelines.

Consequently, upon review of SCE's 2020 WMP, the WSD issued a "Conditional Approval." The Conditional Approval is predicated on SCE satisfying the set of conditions set forth in Resolution WSD-002 and Resolution WSD-004. Table 2 below presents a summary of the number of conditions, grouped by classification.

Class B conditions are intended to address aspects of moderate concern within the electrical corporations' 2020 WMPs for which the WSD found the utilities did not provide sufficient detail or justification. Class B conditions require each electrical corporation to file a QR, which is broadly defined in Resolution WSD-002 as follows:

Class B deficiencies are of moderate concern and require reporting on a quarterly basis by the electrical corporation to provide missing data or update its progress in a quarterly report. Such information shall be submitted either one time in the first quarterly report or on an ongoing basis as specified by each condition.

Pursuant to Ordering Paragraph (OP) 7 of Resolution WSD-002, SCE was required to submit a QR within 90 days of the California Public Utilities Commission's (CPUC or Commission) ratification of SCE's 2020 WMP Resolution, WSD-004. The Commission ratified the 2020 WMP Resolutions⁴ on Thursday, June 11, 2020; therefore, SCE was required to file a QR by September 9, 2020. SCE timely submitted its QR on Friday, September 9, 2020. Public comment on electrical corporations' QRs were submitted on September 30, 2020 by the Commission's Public Advocates Office, Green Power Institute (GPI), Mussey Grade Road Alliance (MGRA), and Small Business Utility Advocates (SBUA). SCE submitted reply comments on October 14, 2020.

Condition Class	WSD-002	WSD-004	Total
Class A	1	3	4
Class B ⁵	10 (1)	18(3)	28(4)
Class C	1	1	2
Total	12	22	34

Table 2: 2020 WMP Resolutions - Conditions Summary for SCE

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⁴ These included Resolutions WSD-002, WSD-003, WSD-004, WSD-005, WSD-007, WSD-008, WSD-009, and WSD-010.

⁵ Values in parenthesis indicate the number of Class B deficiency and condition pairs that require ongoing reporting.

3. Summary of WSD's Assessment of QRs

A QR's intent is for electrical corporations to provide updated information or additional detail to resolve WMP deficiencies with the level of specificity, detail, and scope outlined in the respective condition. Accordingly, the WSD has determined whether an electrical corporation's QR filing sufficiently resolves the deficiency and meets the intent of the condition. To make this determination, the WSD looked to Resolution WSD-002 and the factors used to evaluate 2020 WMPs. While all four factors used in evaluating WMP approval were not applicable,⁶ the WSD evaluated the sufficiency for each Class B deficiency and QR filing in accordance with the following factors:

- Completeness The QR is complete and comprehensively responds to the condition;
- Effectiveness The plans and remedies outlined in the QR will reasonably resolve the deficiency;

Outlined in Table 3: QR Evaluation Criteria, below, are the approval criteria the WSD used to evaluate whether a QR filing is sufficient. In this document, the WSD issues one of the following determinations:

- Sufficient The QR is sufficient, and no further action is required;
- Insufficient The QR is insufficient.

If the WSD finds that a QR is Insufficient, the WSD will require the electrical corporation to address the insufficiencies in its 2021 WMP Update or a supplemental filing,⁷ in accordance with the specific actions outlined in Section 5.1 of this document. The WSD will assess the responses in and will factor noncompliance into its review and, in the case of noncompliance, may also recommend that the CPUC take enforcement action.

Category	Criteria
Completeness	Does the QR provide all the information identified in the condition?
	If not, does the utility provide an explanation of why the QR is
	incomplete and a timeline for when the completed information will be
	provided?
	Does the QR include a timeline for implementation and completion of
	remedial actions?
Effectiveness	Does the QR identify reasonably effective plans and remedies to resolve
	the identified deficiencies?
	Is the timeline identified in the QR sufficient, given the importance of
	the deficiency and its potential impact on wildfire risk?

Table 3: QR Evaluation Criteria

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⁶ Feasibility and forward-looking growth are not applicable to assessing sufficiency of QRs because the QR is simply intended to provide additional information on existing efforts detailed in the 2020 WMP.

⁷ The supplemental filing is discussed in further detail in Section 6 of this document.

4. Public and Stakeholder Comments

On September 30, 2020, Cal Advocates, GPI, MGRA, and SBUA submitted comments on SCE's QR. Provided below is a non-exhaustive summary of the major issues raised in stakeholder comments.

Public Advocates Office (Cal Advocates)

- Each electric utility should present a plan to complement expert judgment with empirical evidence when estimating mitigation effectiveness of its WMP activities.
- The WSD should hold workshops to facilitate sharing of best practices regarding at-risk tree species.
- The WSD should require SCE to steadily reduce incidents and ignitions that are attributed to unknown or unspecified causes.
- The WSD should require SCE to provide more detail on its plans to replace non-exempt hot line clamps.

Green Power Institute (GPI)

- GPI recommends that the response of SCE to SCE-4 be taken into consideration in the process of refining WMP report and data requests.
- Based on SCE's response to SCE-5, it would be prudent to initiate a discussion in the WMP that is focused on exploring the necessary granularities required to prioritize and optimize wildfire mitigation initiatives.
- For Guidance-1:
 - Table 1 lists PSPS as only having a consequence versus ignition risk reduction type. SCE should clarify this determination.
 - o SCE's initiatives listed in Table 1 do not include fuel and slash management.
 - SCE and all IOUs should include the assumed useful life of each mitigation initiative
 - The lack of RSE values for initiatives in Tables A7-A11 is concerning. SCE should explore ways to develop data-driven RSE values for pre-existing as well as novel initiatives.
- For Guidance-2, GPI assumes that activity SH-7, "PSPS-Driven Grid Hardening Work," includes a decision-making process to determine specific grid hardening approaches. However, SCE lists no considered alternatives. SCE should clarify what all optional grid hardening approaches are included within PSPS-driven grid hardening work.
- For Guidance-7, GPI notes that SCE found that combining ground-based compliance and risk-informed inspection programs improved cost effectiveness and believes all utilities filing WMPs should explore and integrate this approach into their ground-based inspection programs.
- For SCE-19, GPI points out that the estimated costs of covered conductor installation for the 2020 WMP are below that of what was spent per mile in 2019 (\$866 k per mile). SCE should explain this difference in cost.
- For SCE-22:
 - SCE describes their fuel management programs but they do not include a fuel and slash management or RSEs in their initiative tables, with the justification,
 "Because 'slash' from vegetation management activities are disposed or recycled

- by trimming/removal contractors (SCE 2020 First Quarter Report, p. A-4)." SCE needs to consider fuel and slash management as part of the wildfire mitigation toolbox.
- SCE should clarify the difference between the Drought Resistance Initiative (DRI), "Hazard tree removals," and other tree-removal programs and whether these multiple tree removal programs can be combined into one program to reduce costs.
- SCE should provide additional detail regarding their fuels and slash management program, including a description of the developing fuel management program with the USFS, its protocol from VM slash removal, the percent of total debris sent to biomass plant facilities, the status, and parameters of its fuel reduction study.
- O SCE should provide percent consequence risk reduction and RSE values for fuels and slash management initiatives that include the benefits of use pathways (e.g., biomass generation, manufacturing end-uses), and how it will regularly include and optimize fuel and slash management initiatives in conjunction with other initiatives.

Mussey Grade Road Alliance (MGRA)

- SCE does not fully comply with Guidance 1. If WSD requires supporting calculations for programs that are foundational, supporting, traditional or regulatory mandates it should require that utility estimates be based on a counterfactual elimination, reduction, or roll-back of those programs.
- The WSD should encourage the IOUs to collaborate on an experimental program to measure the resistance of covered conductor to severe vegetation contact or line breakage events, estimating the probability of arcing and magnitude of energy release compared to bare conductor under similar circumstances. The IOUs should also come up with a common method of measuring the risk reduction provided by covered conductor for various types of outages, faults, or infrastructure damage.
- The WSD should itself drive or should request that the CPUC drive an effort to quantitatively identify customer harm caused by PSPS, and to quantify the benefit of PSPS in terms of avoided wildfire losses.
- In its future guidance for long term vision, the WSD should push the IOUs to envision and implement strategies that will eliminate customer harm from de-energization.
- SCE should be asked to justify its planned shutoff threshold of 58 mph for covered conductor.
- For the response to Guidance-6, SCE should be required to calculate independent risk scores and risk/spend efficiencies for all of its programs.
- WSD should require SCE to provide data quantifying tree-caused circuit interruptions (TCCI) based upon number of incidents per 1,000 trees for each tree species. (SCE-14)
- The WSD should require all utilities to identify where wooden poles are adjacent to evacuation routes.

Small Business Utility Advocates (SBUA)

• The WSD should clarify whether the utilities are required to submit an ignition risk analysis of proposed initiatives in their upcoming 2021 WMPs (Guidance-1).

- The WSD should instruct SCE to report on (i) trends observed for the number of customers that opt-in to receive PSPS notifications and (ii) how information about the benefits of opting-in are communicated to customers in SCE's next quarterly report (SCE-20).
- The WSD should provide guidance to all utilities that "false positive" PSPS events occur only when the utility's decision to issue a PSPS warning was based on erroneous data. False positives should not occur when a PSPS warning is issued in good faith but a PSPS event subsequently fails to materialize.

5. Discussion of the WSD's QR Assessment

In accordance with guidance set out in Resolution WSD-002 and the RCP & QR Guidance Letter, in Table 4 below the WSD presents its findings of sufficiency for SCE's QR in totality.

Category	Criteria	Yes	No
Completeness	Does the QR provide all the information identified in the condition?		X
	If not, does the utility provide an explanation of why the remedy is incomplete and a timeline for when the completed information will be provided?		X
	Does the QR include a timeline for implementation and completion of remedial actions?		X
Effectiveness	Does the QR identify reasonably effective plans and remedies to resolve the identified deficiencies?		X
	Is the timeline identified in the QR sufficient, given the importance of the deficiency and its potential impact on wildfire risk?	X	

Table 4: Review of SCE's QR by Evaluation Criterion

Accordingly, the WSD finds SCE's QR to be Insufficient.

WSD requests clarification or additional information to remediate its finding of Insufficient QR elements. In its 2021 WMP Update, SCE is required to address all Actions identified in Section 5.1.

5.1. Discussion of the WSD's Condition Assessment

Pursuant to WSD-002, these findings and the subsequent discussion comprise the WSD's review of SCE's QR, which includes input from the public and other stakeholders. The following is an assessment of SCE's response to each Class B condition, as presented in its RCP. Provided in the discussion are the detailed elements pertaining to the requirements for each SCE Class B condition, with a corresponding required "action" to sufficiently address the scope, purpose, and intent of the specific element in each applicable condition. Each action identified in the subsequent sections is individually numbered and must be completely addressed in SCE's 2021 WMP Update to meet the WSD's expectation of a sufficient QR.

5.1.1. Condition (Guidance-1, Class B): Lack of risk spend efficiency (RSE) information.

WSD finding for SCE's Condition Guidance-1 response: Insufficient

Below is an analysis of the itemized requirements within Condition Guidance-1, corresponding discussions of specific insufficiencies in SCE's response to Guidance-1, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, each electrical corporation shall provide the following:

i. its calculated reduction in ignition risk for each initiative in its 2020 WMP

SCE calculated ignition reduction "for the initiatives that directly mitigate wildfire risks." Some initiatives are grouped, logically, as they are inseparable and must be executed together to achieve the desired outcome.

ii. its calculated reduction in wildfire consequence risk for each initiative in its 2020 WMP

In Table 1 of the QR, SCE lists PSPS as only having a consequence reduction, as opposed to an ignition risk reduction type. PSPS events can both prevent ignitions from utility infrastructure and reduce the consequences of an ignited fire. SCE provides an explanation as to why it chose to use a consequence model for PSPS; nevertheless, it is unclear why SCE did not use both ignition and consequence models.

Action SCE-1: In its 2021 WMP Update, SCE shall: 1) further describe why either ignition risk and wildfire consequence risk are calculated instead of calculating both, and 2) provide an explanation for each initiative as to why it either reduces ignition risk or wildfire consequence risk, but not both.

iii. the risk models used to calculate (i) and (ii) above

SCE submitted its RSE models in response to DR "SCE-43895-X-379." In addition, SCE attached its "2020 WMP Risk Model Whitepaper," to this QR, in which SCE states that it used the 2018 Risk Assessment Mitigation Phase (RAMP) model related to its General Rate Case (GRC) for calculating risk reduction and RSE in the 2020-2022 WMP.

SCE provides explanations for each initiative that is missing cost and/or RSE information. SCE explains that many of its initiatives are "Addressed by a Traditional Program," and so are not separately calculated as part of the WMP.

Notably, SCE does not include an RSE calculation for fuel and slash management, noting that, "... 'slash' from vegetation management activities are disposed or recycled by trimming/removal

⁸ SCE's QR at p. 3.

⁹ GPI notes this in its stakeholder comments. SCE, in its reply comments, points back to its explanation in its QR for using a consequence model without providing additional clarity.

¹⁰ SCE's QR, Guidance-1, Appendix A, at p. A-8 to A-11.

contractors."¹¹ In contrast, in the 2020 WMP, SCE uses a different justification, stating there is "Insufficient data to model risk"¹² for fuels management.

Action SCE-2: In its 2021 WMP Update, SCE shall: 1) rectify why it does not calculate an RSE for initiative 5.2, "Fuel management and reduction of 'slash' from vegetation management activities," and 2) explain why other fuels management activities SCE performs (e.g., prescribed burns at its Shaver Lake property¹³ and weed abatement¹⁴) are not included as part of this (or any) initiative and consequently do not have calculated RSEs.

5.1.2. Condition (Guidance-2, Class B):

Lack of alternatives analysis for chosen initiatives.

WSD finding for SCE's Condition Guidance-2 response: Sufficient

In its first quarterly report, each electrical corporation shall provide the following:

i. all alternatives considered for each grid hardening or vegetation management initiative in its 2020 WMP

SCE details the alternatives for each initiative in its grid hardening and vegetation management (VM) programs. Some initiatives had no considered alternative and/or the alternative was no action; in these cases, SCE adequately explained why that was so.

ii. all tools, models, and other resources used to compare alternative initiatives

SCE provides the tools and models used in its decision-making process. Some initiatives did not use any tools or models because the initiatives were considered essential, to be the best industry practice, and/or are required by the CPUC orders or regulations.

iii. how it quantified and determined the risk reduction benefits of each initiative

SCE provided the available risk reduction benefit calculations. Some initiatives do not have quantified risk reduction calculations because SCE either considered the action essential or the action was required by CPUC orders or regulations. SCE provided the methods for these calculations in its response to Guidance-1.

iv. why it chose to implement each initiative over alternative options.

SCE adequately explains why implemented initiatives were chosen over alternatives, including when no alternatives were considered.

¹¹ SCE's QR, Guidance-1, Appendix A, at p. A-9.

¹² SCE's 2020 WMP, Table 25.

¹³ https://energized.edison.com/stories/spreading-the-word-on-prescribed-burns-for-forest-health

¹⁴ SCE's 2020 WMP at p. 150.

5.1.3. Condition (Guidance-4, Class B): Lack of discussion on PSPS impacts.

WSD finding for SCE's Condition Guidance-4 response: Insufficient

Below is an analysis of the itemized requirements within Condition Guidance-4, corresponding discussions of specific insufficiencies for SCE's response to Guidance-4, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, each electrical corporation shall detail whether and how each initiative in its WMP:

i. affects its threshold values for initiating PSPS events

ii. is expected to reduce the frequency (i.e. number of events) of PSPS events

iii. is expected to reduce the scope (i.e. number of customers impacted) of PSPS events

iv. is expected to reduce the duration of PSPS events

v. supports its directional vision for necessity of PSPS, as outlined in Section 4.4 of its WMP

SCE provides "Guidance 4 Appendix A," a table, which lists and describes how and whether initiatives affect PSPS thresholds (subpart i), frequency (ii), scope (iii), and duration (iv). SCE also describes how each initiative supports its PSPS directional vision (v). While SCE identifies which initiatives could raise thresholds and reduce frequency, scope, and duration of PSPS events no quantitative estimates for these changes are provided within the table.

The only quantitative value SCE provides is regarding wind speed within its response, indicating that overhead circuits with "full deployed covered conductor" could have increased wind speed triggers of 40 mph sustained winds and 58 mph gusting winds, as opposed to "circuit-specific historical wind speeds." However, SCE does not provide the basis behind using these wind speeds as de-energization thresholds, or provide an average of what previous thresholds consisted of to demonstrate an increase in windspeed threshold. SCE uses general language about reducing and changing thresholds, frequency, scope, and duration, without any use of quantitative values.

Action SCE-3: In its 2021 WMP Update, SCE shall provide quantitative, comparable values for all "Yes" values provided in Columns D, E, F, and G of its submitted table, "Guidance-4 Appendix A."

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¹⁵ SCE's QR at p. 43.

Action SCE-4: In its 2021 WMP Update, SCE shall: 1) explain how it determined 58 mph gusting winds to be a sufficient de-energization threshold for overhead circuits, 2) provide the percentage reduction of PSPS events based on the increased wind speed threshold, and 3) provide the range and average of historical wind speeds used for deenergization thresholds for bare overhead conductor.

5.1.4. Condition (Guidance-5, Class B): Aggregation of initiatives into programs.

WSD finding for SCE's Condition Guidance-4 response: Sufficient

In its 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

For subparts (i) and (ii), SCE provides a breakout of initiatives within "Guidance 6 Appendix A" of the QR, including spend, and states that the same initiative breakout was provided in the 2020-2022 WMP filing.

iii. describe the effectiveness of each initiative at reducing ignition probability or wildfire consequence

iv. list all data and metrics used to evaluate effectiveness described in (iii), including the threshold values used to differentiate between effective and ineffective initiatives

SCE provides narrative detail for subparts (iii) and (iv) broken out by WMP initiatives within Tables 2 through 10 of the QR. However, quantitative values for the effectiveness of individual initiatives are not provided, instead relying on vague terms such as "reduce" and "mitigate." For many of the initiatives, threshold values have not yet been determined, or are "not applicable," although it is not clear why this is the case. The SCE needs to provide quantitative values in order to fully provide an understanding of effectiveness of initiatives.

Action SCE-5: In its 2021 WMP Update, SCE shall: 1) provide a timeline and status update for when it intends to develop quantitative evaluations for each initiative, including the status of threshold values, 2) explain why any initiatives listed in Tables 2 through 10 of the QR would not be applicable for threshold values, and 3) explain what subject matter expert (SME) expertise is being used for in the development of each quantitative value and threshold.

v. provide the information required for each initiative in section 5.3 of the Guidelines

SCE provides this information within "Guidance 6 Appendix A" of its QR.

¹⁶ SCE's QR Table 2 at p. 54, Row AT-3.3 for an example of "reduce" and Row AT-4 for "mitigate."

¹⁷ SCE's QR Table 2 at p. 54, Row AT-3.4 for an example stating "Threshold values have not been determined." and Row AT-5 for an example stating "Threshold values are not applicable."

5.1.5. Condition (Guidance-6, Class B): Failure to disaggregate WMP initiatives from standard operations.

WSD finding for SCE's Condition Guidance-6 response: Sufficient

In its 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"

In "Guidance 6 Appendix A," SCE presents a table which provides the information required by subparts (i), (iii), and (iv).

ii. report WMP required data for all Standard Operations and Augmented Wildfire Operations

In "Guidance 6 Appendix A," SCE labels initiatives as either "Standard Operations" or "Augmented Wildfire Operations" and provides the information required by this set of conditions, with the majority of initiatives falling under "Augmented."

iii. confirm that it is budgeting and accounting for WMP activity of each initiative

iv. include a "ledger" of all subaccounts that show a breakdown by initiative.

Subparts (iii) and (iv) are covered by the table in "Guidance 6 Appendix A."

5.1.6. Condition (Guidance-7, Class B): Lack of detail on effectiveness of "enhanced" inspection programs.

WSD finding for SCE's Condition Guidance-7 response: Insufficient

Below is an analysis of the itemized requirements within Condition Guidance-7, corresponding discussions of specific insufficiencies for SCE's response to Guidance-7, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, each electrical corporation shall detail:

i. the incremental quantifiable risk identified by such 'enhanced' inspection programs

SCE interprets this condition as clarification on the risk reduction benefit of SCE's risk-informed inspection programs ("enhanced" inspections) as compared to existing compliance-driven inspection programs. SCE identifies the following inspection programs in the "enhanced" inspection category: Enhanced Overhead Inspection/ High Fire Risk Informed Inspection (EOI/HFRI)¹⁸, aerial inspections, infrared (IR)/Corona inspections, and long span inspections. SCE justifies the risk reduction of these additional inspections by providing the differences in the number and priority level of notifications generated by standard (i.e., compliance-based) and enhanced inspection programs. SCE reports 210,000 notifications generated by these enhanced

¹⁸ SCE indicates that it conducted its EOI program from 2018 through 2019, and in 2020, EOI was replaced by HFRI inspections.

inspection programs between 2018 and 2020 in comparison to the total 335,900 findings over the same time period. However, nearly 87% of the 210,000 additional notifications were generated from EOI or HFRI inspections, which only seemingly differ from regulatorily mandated detailed inspection in terms of how frequently SCE chooses to conduct them.¹⁹ Also, it is unclear why in Tables 12 and 13 of its QR, SCE is using approximations for the number of notifications.

Action SCE-6: In its 2021 WMP Update, SCE shall: 1) clearly explain how its EOI and HFRI inspections differ from its routine detailed inspections, beyond the frequency with which they are conducted, and 2) provide copies of the inspection forms used for each inspection type.

Action SCE-7: In its 2021 WMP Update, SCE shall: 1) clarify why it chose to use approximations for the number of notifications in Tables 12 and 13 and 2) provide updated tables using actual numbers rather than approximations.

ii. whether it addresses the findings uncovered by 'enhanced' programs differently than findings discovered through existing inspections

SCE states that it does not treat findings from its "enhanced" inspections differently than those of its existing programs and treats all findings in accordance with General Order (GO) 95, Rule 18.

iii. a detailed cost-benefit analysis of combining elements of such 'enhanced' inspections into existing inspection programs

SCE does not provide a cost-benefit analysis of combining enhanced and standard inspections. SCE explains that it combined its compliance-based and risk-based ground inspection programs in 2020 because the programs are similar and having two separate programs would be redundant, more resource intensive, and less cost-effective, leading to a lower RSE.

5.1.7. Condition (Guidance-9, Class B): Insufficient discussion of pilot programs.

WSD finding for SCE's Condition Guidance-9 response: Insufficient

Below is an analysis of the itemized requirements within Condition Guidance-9, corresponding discussions of specific insufficiencies for SCE's response to Guidance-9, and the actions required to make SCE's QR Sufficient:

In its quarterly report, each electrical corporation shall detail:

i. all pilot programs or demonstrations identified in its WMP

SCE details its pilot programs and provides the discussion required by conditions (i), (ii), (iv), and (v).

¹⁹ GO 165 requires that overhead distribution poles and lines are minimally detail inspected every five years.

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

SCE provides performance metrics for its pilot projects but in most cases does not currently have enough data to support (or abandon) plans for wider system-wide adoption of the technologies. SCE has not calculated quantitative risk reduction benefits for pilot programs and, in most cases, assumes that wildfire ignition risk would be reduced if the technology proves effective enough for system-wide adoption.

SCE states that "quantitative performance metrics and quantitative risk reduction benefits are often not known during the pilot stage; these may be developed as part of the closeout phase or subsequent planning activities if the technology proves effective and there is a desire to operationalize." The WSD contends that because these alternative technologies are piloted, in part, under the WMP, quantitative risk reduction measurements should be part of the initial scoping of the pilot, offering SCE insight as to whether, and how much, risk reduction benefit the pilot would provide, if fully implemented.

Action SCE-8: In its 2021 WMP Update, SCE shall: 1) detail how risk reduction benefits are calculated or measured for individual pilot programs, 2) provide the quantitative pass/fail criteria used to determine the performance of individual pilot programs, and 3) discuss what threshold values are required to initiate broad implementation of pilot programs beyond the pilot phase.

iv. how the electrical corporation remedies ignitions or faults revealed during the pilot on a schedule that promptly mitigates the risk of such ignition or fault, and incorporates such mitigation into its operational practices

v. a proposal for how to expand use of the technology if it reduces ignition risk materially.

5.1.8. Condition (Guidance-10, Class B): Data issues – general.

The assessment of SCE's GIS data submission is contained within the GIS data quality control (QC) report issued separately by the WSD. Analysis of the quality and thoroughness of the data submission is deferred to the aforementioned GIS data QC report.

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²⁰ SCE's QR at p. 93.

5.1.9. Condition (Guidance-11, Class B): Lack of detail on plans to address personnel shortages.

WSD finding for SCE's Condition Guidance-11 response: Sufficient

In its first quarterly report, each electrical corporation shall detail:

i. a listing and description of its programs for recruitment and training of personnel, including for vegetation management

SCE provides descriptions of its recruitment and training programs for WMP-related programs for both internal and external hires in various classifications.

ii. a description of its strategy for direct recruiting and indirect recruiting via contractors and subcontractors

SCE describes it recruiting strategies for internal and external hires. In addition, SCE details how it has improved request for proposal (RFP) procedures to solicit more vegetation management (VM) contracts.

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.

In a series of tables, SCE documents the recruitment metrics required by this condition with one exception; SCE does not provide "the percentage that were working for another California utility immediately prior to being hired." SCE sufficiently explains that this data was not previously tracked by its recruiting teams, nor the International Brotherhood of Electrical Workers (IBEW). SCE states that it will begin collecting data for this metric in 2021.

5.1.10. Condition (Guidance-12, Class B): Lack of detail on long-term planning.

WSD finding for SCE's Condition Guidance-12 response: Sufficient

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

SCE's goal for 2030 is to "achieve an integrated, data-driven, risk-informed operational approach that helps us affordably balance the scale, complexity, and uncertainties associated with wildfire risks in California." To this end, SCE presents how it intends to mature in the WSD identified maturity model categories during each WMP cycle.

²¹ SCE's QR at p. 154.

SCE describes its anticipated grid architecture for 2030, emphasizing covered conductor and fire-resistant poles as "mainstays"²² of wildfire mitigation. SCE also suggests that potential solutions to reduce the impact of PSPS on customers, such as microgrid or Distributed Energy Resources (DER), could help achieve multiple objectives.

ii. a year-by-year timeline for reaching these goals,

SCE expects all maturity categories to be "fully mature"²³ by the start of 2026. SCE provides a year-by-year timeline of maturity progression, but groups goals into WMP cycles (e.g. 2023-2025) and does not provide quantitative benchmarks.

iii. a list of activities that will be required to achieve this end goal,

Like subpart (ii), there are qualitative details on goals per WMP cycle, but SCE is missing measurable goals, relying on terms like "continue" and "increase."

Action SCE-9: In its 2021 WMP Update, SCE shall: 1) define what "continue" or "increase" means for each instance it is used and 2) either a) implement quantitative benchmarks that are reasonable and achievable for each such instance, or b) explain how it intends to track progress of each instance if a quantitative benchmark is not provided.

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

SCE describes its 2020-2022 WMP as foundational, achieving fundamental data collection, establishing management practices, developing situational awareness with greater granularity and accessibility, and enhancing risk-modeling across all electrical topologies. For 2023-2025, SCE will focus on the integration of systems, tools, and models developed in the 2020-2022 WMP cycle. Furthermore, SCE expects that 2026-2030 will be spent monitoring and implementing future advancements in big data, situational awareness technologies, and risk modeling.

5.1.11. Condition (SCE-1, Class B):

Lessons learned not sufficiently described.

WSD finding for SCE's Condition SCE-1 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-1, corresponding discussions of specific insufficiencies for SCE's response to SCE-1, and the actions required to make SCE's QR Sufficient:

²² SCE's QR at p. 175.

²³ SCE's QR at p. 157.

In its first quarterly report, SCE shall:

i. list and describe the lessons learned from implementation of its 2019 WMP,

SCE adequately addresses lessons learned, including discussions at the initiative level.

ii. describe how the lessons learned in 2019 shaped SCE's 2020 WMP and

SCE has recognized delays in work completed due to remote terrain, extreme weather conditions, and vendor supply/availability and states that it is working to overcome these obstacles. SCE seems to have taken logical steps to remedy the issues encountered while implementing its 2019 WMP.

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.

SCE focuses on how lessons learned affect the quality and speed of implementing its mitigation initiatives rather than selection and prioritization, stating that in 2019 it conducted an "expeditious implementation of wildfire mitigations" and developed "a baseline understanding of SCE's wildfire mitigation capabilities."²⁴

Action SCE-10: In its 2021 WMP Update, SCE shall detail how it incorporates lessons learned into the decision-making process for the selection and prioritization of its WMP programs and initiatives.

5.1.12. Condition (SCE-3, Class B): Failure of commitment.

WSD finding for SCE's Condition SCE-3 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-3, corresponding discussions of specific insufficiencies for SCE's response to SCE-3, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall:

i. provide a firm commitment to a quantifiable reduction in 1) frequency, 2) scope (i.e. customers impacted), and 3) duration of PSPS events during the plan term, including timelines for achieving these reductions; and

SCE reports expected percentage decreases for the frequency, scope, and duration of PSPS events. Expectations do not constitute a firm commitment, as Condition SCE-3 requires. SCE must commit to achieving, at minimum, these expected reductions as PSPS events are disruptive to communities and economies.

²⁴ SCE's QR at p. 186.

Action SCE-11: In its 2021 WMP Update, SCE shall: 1) report on whether it achieved its expected 2020 reduction in PSPS frequency, scope, and duration, 2) commit to achieve these, or further, reductions in 2021 and beyond, and 3) set measurable, year to year, goals for reduction of the frequency, scope, and duration of PSPS events for 2021 and 2022.

ii. explain which initiatives in its 2020 WMP are contributing to the goals in (i) above.

SCE provides an Appendix (Guidance 4 Appendix A) which lists each initiative that affects PSPS frequency, scope, and duration.

5.1.13. Condition (SCE-4, Class B):

SCE risk reduction estimation requires further detail.

WSD finding for SCE's Condition SCE-4 response: Sufficient

In its first quarterly report, SCE shall explain:

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

SCE clarifies that it projects a 12% reduction in ignitions from 2019 to 2020, rather than 70%. Additionally, SCE explains how it arrived at these estimations using baseline fault and ignition data, stratification across its High Fire Risk Area (HFRA), and separation of distribution and transmission data.

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;

SCE's clarification of its ignition reduction estimates renders this condition inapplicable.

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

SCE correctly used 5-year historical weather averages to assume 2020 weather conditions, per 2020 WMP Guidelines.

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

SCE's clarification of its ignition reduction estimates renders this condition inapplicable.

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.

SCE uses its response to Guidance-1, subpart (i), to sufficiently satisfy this condition.

5.1.14. Condition (SCE-5, Class B):

Detailed timeline of Wildfire Risk Reduction Model (WRRM)²⁵ implementation not provided.

WSD finding for SCE's Condition SCE-5 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-5, corresponding discussions of specific insufficiencies for SCE's response to SCE-5, and the actions required to make SCE's QR Sufficient:

In its quarterly report, SCE shall provide:

i. the status of implementation of its WRRM,

SCE describes its WRRM milestones and provides a corresponding timeline for its implementation in Table 24 of its QR. However, for the Q1 2021 timeframe, SCE provides two, seemingly contradictory, milestones for both developing a plan for transition from REAX+²⁶ to WRRM and completing the transition to WRRM. Considering that evaluation of mitigation and inspection scopes (Q3 2020) and adjustment of said scopes (Q1 2021) will seemingly take six months to complete, it seems ambitious, and potentially infeasible, that SCE will develop a transition plan and execute the transition from REAX+ to WRRM in the same quarter.

Action SCE-12: In its 2021 WMP Update, SCE shall clarify whether its Q1 2021 timeline for planning and executing its transition from REAX+ to WRRM is accurate.

ii. a description of how it plans to use its WRRM to evaluate its 2020 WMP initiatives, including how it will make future decisions based on this model,

SCE describes how WRRM will be used to make future make prioritization decisions. However, it is unclear which 2020 WMP initiatives will be reevaluated using WRRM. SCE states that implementation of WRRM may impact "in-flight" projects and it will evaluate "in-flight" inspection and mitigation scope using the new risk scores (i.e., outputs from WRRM). SCE specifically identifies covered conductor and distribution inspection programs as examples of 2020 WMP initiatives that may benefit from use of WRRM outputs but provides no detail on its other 2020 WMP initiatives.

Action SCE-13: In its 2021 Update, SCE shall: 1) list the 2020 WMP initiatives being reevaluated using WRRM and the results of that reevaluation, and 2) show how the new WRRM risk scores compare to those from the previous REAX+ model.

iii. all factors it will consider in this evaluation,

SCE adequately describes the factors which it intends to use in this evaluation, most notably comparing values from REAX+ to WRRM outputs.

²⁵ WRRM is a wildfire risk model (WRM) developed in conjunction with SCE's contractor, Technoslyva.

²⁶ REAX+ is a wildfire risk model (WRM) developed in conjunction with Reax Engineering. *See* 2021 GRC SCE-01, Vol 2 Workpaper "Reax Fire Risk from Overhead Electrical Facilities" for more detail.

iv. changes to 2020 WMP initiative type, scope, or priority being considered as a result of WRRM implementation and resultant outputs,

Due to the implementation schedule for WRRM, SCE does not anticipate any changes to 2020 WMP initiatives or priorities at the time of its QR filing. If available, SCE states that it will present changes to 2020-2022 initiatives, scope, and prioritization in the 2021 WMP Update. The WSD expects SCE to present this information as it becomes available, either in its 2021 WMP Update or subsequent QRs.

v. a description of whether information from the evaluation of 2020 WMP initiatives will be used to inform scoping of those initiatives or adjustments to those initiatives in 2021 and beyond, and if yes, a description if the criteria (including quantitative metrics) used to inform those adjustments and provision of those metrics.

SCE details in its response to Condition Guidance-3 how new and revised risk scoring assessments will be applied to initiative priority and scope.

5.1.15. Condition (SCE-6, Class B): SCE lacks sufficient weather station coverage.

WSD finding for SCE's Condition SCE-6 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-6, corresponding discussions of specific insufficiencies for SCE's response to SCE-6, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall:

i. explain in detail how it chooses to locate its weather stations and explain gaps or areas of lower weather station density, including in the National Forest Areas; and

SCE explains that gaps in its weather station distribution are supplemented by weather stations run by other organizations: National Weather Service, Department of Defense, CAL FIRE, etc. SCE is prioritizing the placement of its weather stations on distribution circuits with a history of PSPS events and in "wind prone areas" (with a focus on wind-prone locations where the potential consequences of a catastrophic fire are significant).²⁷ However, considering the impacts of climate change, future weather patterns may not follow historical precedent, and SCE should consider placement of weather stations in strategic locations that may not have been historically prone to high winds.

Moreover, a larger concern is that SCE's primary focus for the building of its weather network and placement of weather stations seems to revolve around its PSPS decision-making and historical use of PSPS. While improved forecasting capabilities and granularity of weather data may allow for more targeted PSPS implementation, assuming the requisite sectionalizing devices are in place to facilitate it, the WSD has clearly signaled its assertion that PSPS should not be a

²⁷ SCE's QR at p. 207.

long-term solution to utility management of wildfire risk. Considering that implementation of PSPS as a wildfire risk mitigation measure is solely a utility-initiated decision and that PSPS events have been increasing in prevalence over recent years, it seems questionable to have the historical prevalence of these events be the primary driving factor for deciding where to place additional weather stations in the future. Development of its weather network and placement of future weather stations should also consider refinement of local knowledge²⁸ to supplement SCE's grid design, inspection, and maintenance practices, not just validate its PSPS decision-making.

Action SCE-14: In its 2021 WMP Update, SCE shall discuss 1) how the present and future effects of climate change are considered in weather station placement and 2) how SCE's weather station network is and can be used in its operations beyond PSPS deenergization related decision-making.

ii. provide a cost/benefit analysis of the impact of having a higher density of weather stations across its territory, including on U.S. Forest Service National Forest lands.

SCE acknowledges that more weather stations can provide more expansive and granular data for weather forecasting and modelling. However, SCE points to the elevated cost of constructing weather stations outside its distribution system rights-of-way (ROW). SCE attributes the elevated cost (\$5000) of constructing and maintaining a weather station on United States Forest Service (USFS) to environmental review and land rights fees. SCE provides an estimate of these fees, but the source and accuracy of this approximated cost is unclear.

The cost to install weather stations on USFS land may be significant, but SCE has failed to weigh the impacts weather stations may have on wildfire mitigation for both its distribution and transmission infrastructure. In addition, SCE touts its access to weather stations owned by other entities but does not seem to have considered partnering with these entities to install/maintain additional weather stations for mutual benefit.

Action SCE-15: In its 2021 WMP Update, SCE shall: 1) break down the cost of environmental review and land rights fees it expects from the USFS, as detailed in Table 25 of its QR, and 2) provide information regarding partnerships with or applications to the USFS to install weather stations and "meteorological sample sites" as it relates to 36.2 CFR 220.6.

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²⁸ GO 95, Rule 31.1 requires that local conditions under which electrical systems operate must be taken into account when designing, constructing, and maintaining the grid to enable the furnishing of safe, proper, and adequate service.

5.1.16. Condition (SCE-7, Class B):

Does not describe whether fire-resistant poles were factored into risk analysis.

WSD finding for SCE's Condition SCE-7 response: Sufficient

In its first quarterly report, SCE shall:

i. describe in detail whether the replacement of wood poles with fire resistant pole materials was factored into its risk models for determining covered conductor effectiveness,

SCE did not include the installation of fire resistant (FR) poles into risk models for covered conductors.

ii. if so, how this factored into the analysis and accounted for in the model outputs,

iii. if not, why, and

SCE adequately explains why it decided to calculate RSE for FR poles and covered conductors separately: each mitigation targets different drivers of ignition.

iv. how it plans to account for this impact on risk, including timeframe for inclusion.

SCE indicates it has already performed the risk analysis for both FR poles and covered conductor and incorporated the findings into its scope of work.

5.1.17. Condition (SCE-8, Class B):

Lack of detail on hotline clamp replacement program.

WSD finding for SCE's Condition SCE-8 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-8, corresponding discussions of specific insufficiencies for SCE's response to SCE-8, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall:

i. explain how it identifies existing hotline clamps on its grid;

SCE indicates that it does not have a specific program to identify hotline clamps or proactively replace them, but that hotline clamps and other connectors are identified and assessed for potential replacement during its various inspection efforts. SCE conducts local ground inspections in accordance with regulations, additional "High Fire Risk Informed" (HFRI) inspections, and biennial infrared (IR) inspections. SCE is also deploying continuous monitoring sensors²⁹ that have the capability to identify connectors, including hotline clamps, in need of repair or replacement. These varied inspections adequately explain how SCE identifies hotline clamps in need of replacement in its system, assuming the inspections SCE details have effective quality control and audits.

²⁹ These include Distribution Fault Anticipation (DFA) and Early Fault Detection (EFD) technologies.

ii. describe how it assesses which hotline clamps require replacement;

SCE uses visual inspections to look for evidence of arcing during its ground inspections, IR inspections to find elevated temperatures (temperature differentials) that may indicate weak connections, and continuous monitoring sensors to detect for signs of connector degradation (i.e., arcing signatures).

iii. define how it prioritizes where to target hotline clamp replacements;

SCE prioritizes HFTD areas for its HFRI inspections, which are conducted more frequently than the minimum requirements of GO 165. In its response to Guidance-3, SCE explains that its HFRI inspections are prioritized using SCE's WRM/REAX matrix. Hotline clamps identified for repair or replacement through local ground inspections are prioritized based on location and as-found conditions. Hotline clamps identified for repair or replacement through IR inspections are prioritized based on the degree of temperature differential identified, with higher temperature differentials receiving higher priority and shorter timelines for repair or replacement.

iv. describe how it calculates and measures ignition risk reduction achieved by completing this replacement work; and

Unlike other utilities, SCE does not have a specific program to replace hotline clamps and only does so if issues requiring repair or replacement of such clamps are identified during other inspection activities. Thus, SCE does not calculate an RSE for hotline clamp replacement in its 2020 WMP, Table 23, item 10. In accordance with its response to Guidance-1, SCE states that "no RSE was calculated as this is already a compliance program and not a WMP initiative. Addressed by a Traditional Program." However, SCE does calculate RSEs for its HFRI inspections and IR inspections, which it offers as an alternative measure of calculated risk reduction, although not solely tied to hotline clamp replacements.

While SCE claims it does not provide an ignition risk reduction calculation for replacement of hotline clamps because it does not have a specific program dedicated to the replacement of such clamps, in its response to SCE-5, SCE indicates it has developed probability of ignition (POI) models that can estimate ignition probability at the asset-level and will be incorporated into other models to refine its risk scoring and prioritization efforts. Accordingly, SCE should be able to provide more specific detail regarding how the replacement of such at-risk connectors, including hotline clamps, impact its POI models and risk estimates.

Action SCE-16: In its 2021 WMP Update, SCE shall: 1) explain whether its POI models account for splices, clamps or connectors, 2) if so, provide information detailing the impact of hotline clamp replacements on POI, and 3) if not, explain why.

³⁰ SCE's QR, Guidance-1 Appendix A, at p. A-8.

v. describe how it inspects and maintains existing hotline clamps that are not scheduled for replacement, including how it prioritizes particular assets, circuits, or geographies.

SCE adequately addresses the condition imposed by this subpart in its response to subpart (i). Accordingly, see the discussion under subpart (i) for the WSD's analysis related to the conditions of subpart (v).

5.1.18. Condition (SCE-9, Class B):

Lack of detail regarding Pole Loading Assessment Program.

WSD finding for SCE's Condition SCE-9 response: Sufficient

In a quarterly report, SCE shall submit GIS files detailing:

i. areas where PLP assessments have been completed during the prior reporting period, and

SCE explains that its pole loading program predates the WMPs and is part of a GRC approved compliance driven program. SCE states that 318 pole assessments were completed in HFRA between May 1 and July 31, 2020. In addition, SCE provides an appended spreadsheet with the locations of these assessments.

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

SCE provides the locations for "pending" pole assessments in HFTDs in the same, aforementioned appended spreadsheet. However, SCE states that it "forecasts to assess 1,205 pole assessments in HFRA between August 1 and November 30, 2020 but notes this 120-day plan may not be fully executed due to operational constraints." Based upon SCE's completion of 318 pole assessments in the previous quarter, the WSD questions the feasibility of SCE's goal to complete 1,205 pole assessments in a similar timespan.

Action SCE-17: In its 2021 WMP Update, SCE shall: 1) report how many PLP assessments have been completed between August 1 and November 30, 2020,³² and 2) if SCE's forecast of 1,250 assessments was not met, explain why there is a discrepancy between the forecast and work completed.

5.1.19. Condition (SCE-10, Class B):

Lack of detail on effectiveness of inspection program QA/QC.

WSD finding for SCE's Condition SCE-10 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-10, corresponding discussions of specific insufficiencies for SCE's response to SCE-10, and the actions required to make SCE's QR Sufficient:

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³¹ SCE's QR at p. 219.

³² As required by SCE-9's "ongoing" reporting status per WSD-004.

In its first quarterly report, SCE shall provide:

i. all metrics and other measures it uses to track and evaluate the ability of its inspectors in identifying and classifying the potential safety and reliably risks of GO 95 violations, potential ignition risks, and other safety hazards;

SCE indicates that it utilizes risk categorization of its inspection programs (Very High, High, Medium, and Low), based on program maturity, process complexity, organizational complexity, and downstream impacts. This program level risk categorization is used in conjunction with REAX consequence scores, to establish a confidence level (CL), confidence interval (CI), and threshold level (TL) for the inspection programs. However, SCE's QR lacks any detail on how it measures and ranks the inspection program risk factors it lists.

Action SCE-18: In its 2021 WMP Update, SCE shall: 1) describe whether each of its listed inspection program risk categorization factors (i.e., program maturity, process complexity, organizational complexity, and downstream impacts) are treated equally or weighted differently in determining program risk, 2) if weighted differently, provide the relative weighting of each factor, and 3) explain how it measures each inspection program risk categorization factor listed, including all threshold values and delineations applied.

ii. the threshold values of metrics and measures identified in (i) that mandate response action (e.g. retraining, change in protocols or checklists, etc.); and

When the conformance rate drops below the established TL across a rolling three-month average, SCE institutes a formalized action plan, root cause analysis, and corrective actions.

iii. all possible response actions related to findings from QA/QC review and performance metrics evaluation.

SCE details numerous ways in which it evaluates the cause of the deficiencies discovered by QA/QC. SCE also list the four steps it takes to remediate QA/QC finding: determine the cause, implement corrective action to preclude recurrence, report the cause and corrective action taken to management, and verify the implementation and effectiveness of corrective action taken. However, SCE does not detail possible corrective actions beyond the remediation of the physical hazard (e.g., retraining of inspectors, modification of inspection procedures or job aids, changes to training programs or materials, etc.) nor how it verifies the effectiveness of the corrective action.

Action SCE-19: In its 2021 WMP Update, SCE shall detail 1) all possible corrective actions related to findings from QA/QC review and performance metrics evaluation, and 2) how it verifies the effectiveness of these corrective actions.

5.1.20. Condition (SCE-11, Class B):

Lack of explanation around shift to risk-based asset management.

WSD finding for SCE's Condition SCE-11 response: Sufficient

In a first quarterly report, SCE shall detail:

i. all initiatives it is implementing to make this transition to a risk-based strategy;

SCE provides a narrative of its Inspection Redesign (IRD) Program, launched in 2019 to manage the transition from a compliance-based inspection strategy to a risk-informed inspection strategy. The IRD Program includes workstreams related to enhancing the inspection process, improving data quality, and expanding the use of unmanned aerial systems.

ii. all data sources, models, and tools it is using to implement this initiative;

SCE relies on parts of its response to Guidance-3, which detail the models used for each initiative, to satisfy this condition.

iii. how it is adjusting its inspection and maintenance programs to incorporate such changes; and

SCE adequately describes how it is adjusting three aspects of its inspections program: people, process, and technology.

iv. how it is planning to communicate and train its inspectors of such changes.

SCE uses an "Agile" implementation, a common method of software implementation, that focuses on phased rollouts that make incremental improvement while incorporating user feedback.

5.1.21. Condition (SCE-14, Class B):

SCE relies only on growth rate to identify "at-risk" tree species.

WSD finding for SCE's Condition SCE-14 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-14, corresponding discussions of specific insufficiencies for SCE's response to SCE-14, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall detail:

i. all the factors it considers in identifying "at-risk" tree species;

SCE presents 12 attributes that it considers when evaluating a tree's individual risk and a list of the top 10 tree types that demonstrate these attributes. SCE neglects to consider other attributes that affect a specie's success, such as vulnerability to water stress (drought) and climate change. In addition, SCE has presented "at-risk" tree types (i.e., grouping several species into broader categories: Palm, Eucalyptus, Pepper, etc.), rather than species.

SCE's definition of "Invasive" is either unclear or incorrect. The United States Department of Agriculture (USDA)³³ defines an invasive species as, per Executive Order 13112 (February 1999),³⁴ a species that is: 1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health. According to the California Invasive Plant Council, some, but not all palm species are considered invasive in California. Similarly, some, but not all, eucalyptus species are considered invasive. However, this is not reflected in SCE's "Top 10" list, in which it rates palm types as invasive, but not eucalyptus types. In the same way, "vines" ought not be grouped into one category considering that 154 vine species occur in California.³⁵

The attribute "Subject to improper pruning practices when in proximity to high voltage lines" seems highly subjective, and SCE provides no explanation as to why theses tree types are subject to improper pruning. Similarly, other attributes are not quantified or defined, such as "fast growing" and "large maturing tree height."

Action SCE-20: In its 2021 WMP Update, SCE shall: 1) shall explain why it does not include long-term species vulnerability factors in evaluating "at-risk" tree species (e.g., climate change, water stress/drought), 2) use a scientifically and governmentally accepted definition of "invasive" to assess vegetation attributes as it relates to utility VM activities, 3) provide an evaluation of "at-risk" tree species, rather than tree types, 4) explain the purpose of the Top 10 list and how tree types and/or species are selected for (or excluded from) the list, 5) clarify what is meant by "Subject to improper pruning practices when in proximity to high voltage lines" and explain how SCE trains its VM staff and contractors to identify and avoid improper pruning, and 6) define and/or quantify attributes of "at-risk" tree species, as listed in Table 26 – SCE-14,³⁶ and explain how these factors are weighted.

ii. how it plans to measure the effectiveness of focusing work on "at-risk" species is for reducing vegetation-caused outages and ignitions; and

SCE heavily relies on its response to Condition SCE-12, Class A (which the WSD found to be insufficient due to the lack of detail regarding statistical methods) to respond to this condition. As in SCE-12, SCE does not describe the statistical analysis which it intends to perform, simply stating that it will be "measuring changes in TCCIs³⁷ in our HFRA."³⁸

SCE equates "type of species" and species. While grouping species is convenient for identification, it does not provide accurate data on the risk of individual tree species. For

³³ https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ct/technical/ecoscience/invasive/?cid=nrcs142p2 011124

³⁴ https://www.govinfo.gov/content/pkg/FR-1999-02-08/pdf/99-3184.pdf

³⁵ https://www.calflora.org/cgi-

bin/specieslist.cgi?namesoup=&countylist=any&lifeform=Vine&plantcomm=any&format=photos&orderby=taxon ³⁶ SCE's OR at p. 235.

³⁷ Tree-Caused Circuit Interruptions (TCCIs): events during which trees, or portions of trees, have contacted electrical equipment and caused circuit interruptions. TCCIs can result from vegetation that has fallen-in, blown-in, or grown-in. SCE's QR, at p. 234.

³⁸ SCE's QR at p. 236.

example, hypothetically, a black oak (*Quercus kelloggii*) may cause more TCCIs than coast live oak (*Quercus agrifolia*), but under SCE's current grouping system (i.e., by "type"), the difference would not be noted.

Action SCE-21: In its 2021 WMP Update, SCE shall: 1) discuss how additional measures taken for "at-risk" and fast-growing tree species fit into the statistical analysis of effective tree clearance, both regulatory and enhanced, 2) explain if SCE's VM management systems record the species (in contrast to species type) of a tree, and if not, explain why, and 3) explain why analysis of clearance distance using tree "types" has adequate granularity considering the impact to future VM-related decisions and initiatives throughout SCE's large, geographically and biologically diverse, service territory.

iii. what measurable impact its work on "at-risk" tree species has on its thresholds for initiating a PSPS event.

SCE explains that at-risk tree species are not currently considered directly in PSPS thresholds, but it plans to incorporate vegetative factors into future models and risk informed PSPS decision-making framework. In its response to Guidance-5, SCE explains that historic vegetation data will be incorporated into the fire potential index (FPI).³⁹

5.1.22. Condition (SCE-15, Class B):

Lack of detail on how SCE addresses fast-growing species.

WSD finding for SCE's Condition SCE-15 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-15, corresponding discussions of specific insufficiencies for SCE's response to SCE-15, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall:

i. list and describe what "additional measures" it takes to address fast growing tree species;

SCE primarily relies on its response to SCE-14 to fulfil the conditions of SCE-15 because SCE considers fast-growing to be an "at-risk" attribute for trees. SCE describes three additional actions it takes to address fast growing tree species: more pruning (i.e., greater clearances at the time of pruning), removal, or mid-cycle inspections However, it is unclear whether community outreach and education are part of SCE's long-term plan to address both fast-growing species and "at-risk" species.

Action SCE-22: In its 2021 WMP Update, SCE shall describe any ongoing or planned efforts to address at-risk and/or fast-growing tree species using community outreach and education, so that SCE might reduce the number of at-risk, fast growing, and/or exceptions trees it encounters while performing VM activities.

³⁹ SCE's QR, Table 8 – Guidance-5, at p. 69.

ii. how it determines which additional measures must be implemented; and

SCE explains when and how additional measures are taken to ensure proper clearance. In some cases, SCE cannot attain full clearance at the time of scheduled maintenance due to easements, other legal agreements, or regulations. In these events, the maximum allowable amount of vegetation is removed, and the tree is classified as an "Exception Tree" in the vegetation work management system and subject to re-inspection "as needed throughout the year to avoid potential encroachments." However, "as needed" re-inspections of "Exception Trees" may vary widely between species and situations.

Action SCE-23: In its 2021 WMP Update, SCE shall: 1) clarify which inspection program(s) encompasses the "as needed" re-inspections for "Exception Trees," 2) detail how it is determined when an "Exception Tree" needs to be reinspected, including who makes the determination, 3) explain how these re-inspections are prioritized (e.g., by tree species, by circuit, etc.), and 4) detail the methods for how SCE determines the effectiveness of these "as-needed" re-inspections.

iii. how it evaluates the effectiveness of these additional measures at reducing vegetation-caused outages and ignitions.

As in its response to SCE-12 and SCE-14, SCE does not detail the statistical analysis which it intends to perform, simply that it will be "measuring changes in TCCIs in our HFRA." Without specific analysis of TCCIs for individual tree species it will be difficult to determine effectiveness of both standard and enhanced clearances on individual species in specific geographies. See Action SCE-21, above.

5.1.23. Condition (SCE-17, Class B):

Details not provided for collaborative research programs.

WSD finding for SCE's Condition SCE-17 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-17, corresponding discussions of specific insufficiencies for SCE's response to SCE-17, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall detail:

i. with whom and how it collaborates with academic institutions to further its research on utility ignition issues;

SCE lists several academic institutions with which it has collaborated or intends to collaborate on research and includes a description of the research. However, it is often unclear what role SCE plays in the research at various institutions; SCE only provides a description of its role for collaboration requests from universities that are pending or were denied.

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⁴⁰ SCE's QR at p. 241.

Action SCE-24: In its 2021 WMP Update, SCE shall present a table outlining collaborative efforts with academic institutions and what role SCE plays in that research, similar to the submitted Table 28 - SCE-17,⁴¹ with an additional column detailing whether funding is ongoing, or subject to renewal, and if so, when.

ii. how it plans to evolve these collaborations over the plan term; and

SCE describes its intentions to continue and evolve collaborations over the plan term. In addition, SCE describes other collaborations it has either rejected or are under review.

iii. which research it plans to invest in during the plan term.

While SCE describes all the research in which it is or may be physically invested in the plan term, it does not clearly describe what monetary investments it has in each academic program. See Action SCE-24, above.

5.1.24. Condition (SCE-18, Class B):

Discussion of centralized data repository lacks detail.

WSD finding for SCE's Condition SCE-18 response: Sufficient

In its first quarterly report, SCE shall detail:

i. its goals and targets related to implementation of this centralized data repository;

SCE presents a list of goals for the data repository system, targets for 2020, and long-term planning goals and targets for development and implementation of its data repository.

ii. how the centralized data repository will evolve during the plan period;

SCE provides a timeline with yearly targets and goals for each year of the plan period as well as long-term goals.

iii. which specific WMP programs or initiatives will utilize this centralized data repository;

SCE identifies the following programs as being part of their centralized data repository: Public Safety Power Shutoff, Grid Hardening, Asset Management Inspections, Vegetation Management, Wildfire Risk Analysis, Grid Resilience Alternative Technology Programs, and Operational Practice Improvement Programs.

iv. all the sources of data input into this centralized data repository; and

SCE lists the following sources as inputs to the system: Consolidated GIS (cGIS), ArcGIS Online (AGOL), SAP, Customer Service System (CSS), Outage Management System (OMS), Copperleaf C55, Primavera P6, Salesforce, Technosylva, SAS, PSPS Operational Dashboard sources, Google Cloud Platform, and Public data sources. However, it is unclear which WMP programs relate to which software platform.

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⁴¹ SCE's QR at p. 247.

Action SCE-25: In its 2021 WMP Update, SCE shall identify what program or initiatives (listed in subpart (iii)) corresponds with the data sources listed as part of its response to this condition.

v. treatment and QA/QC of data identified in (iv).

SCE plans to integrate data quality rules, metrics, and dashboards, require data validation in applicable interfaces, and design data audit checks to ensure consistency and completeness.

5.1.25. Condition (SCE-19, Class B):

SCE does not sufficiently justify the relative resource allocation of its WMP initiatives to its covered conductor program.

WSD finding for SCE's Condition SCE-19 response: Insufficient

Below is an analysis of the itemized requirements within Condition SCE-19, corresponding discussions of specific insufficiencies for SCE's response to SCE-19, and the actions required to make SCE's QR Sufficient:

In its first quarterly report, SCE shall provide:

i. further justification, including a RSE analysis of alternatives, for the costs associated with the covered conductor initiative,

SCE explains that its covered conductor program is designed to address contact from object ignition drivers, which account for 55% of its reportable ignition profile in the HFTD. SCE presents undergrounding conductors as an alternative that could also remediate risk related to contact from objects but indicates that undergrounding can be prohibitively expensive and has a relatively low RSE. Additionally, SCE presents a suite of mitigations to complement its covered conductor programs, including hazard tree remediation, inspection programs, and expanding pole brushing.

ii. an explanation of how SCE derived the ignition reduction potential of covered conductor, including with reference to its projected ignitions in Table 31 of its WMP,

SCE details the ignition reduction and mitigation effectiveness of the covered conductor program by breaking it down into component parts for both contact from object and equipment/facility failure.

iii. a detailed explanation of why this initiative, as opposed to others, warrants such a large percentage of its spend given its ignition reduction potential,

SCE summates its argument for the large-scale deployment of covered conductors. Notably, SCE states that the covered conductor program has "additional benefits" by reducing equipment/facility failure (EFF) ignition drivers through replacement of aging overhead conductors, hardware, and construction components such as splices and insulators. However, it is

⁴² SCE's QR at p. 261.

unclear whether the costs of these additional benefits are captured solely within the covered conductor program that accounts for 42% of SCE's WMP budget, or whether the additional benefits are accounted for in a diverse suite of initiatives that would incur additional costs.

Action SCE-26: In its 2021 WMP Update, SCE shall clarify whether the "additional benefits" are solely accounted for in the covered conductor program or if the cost is distributed amongst several initiatives.

iv. justification and rationale for its planned ramping up of spend on covered conductor each year of the plan term, and

SCE explains that the ramp-up of spend for the covered conductor program is the result of efforts to increase planning, procurement, permitting, and scheduling of covered conductor installation. These efforts allow for SCE to schedule installation of more line miles of covered conductor year-over-year during the plan period, 2020-2022.

v. a detailed description of relationship between spend and forecasted circuit miles approved in D.20-04-013 and that presented in SCE's 2020 WMP.

SCE adequately explains differences in spend and forecasted-circuit-miles-approved in D.20-04-013 and SCE's 2020 WMP. In 2019, SCE had informed the Commission that it would continue to accelerate its covered conductor program and at the time provided no estimates for spend and forecasted miles of covered conductor installation for 2020 and beyond.

5.1.26. Condition (SCE-20, Class B):

Potential notification fatigue from frequency of PSPS communications.

WSD finding for SCE's Condition SCE-20 response: Sufficient

In its quarterly report, SCE shall detail:

i. its plans for ensuring PSPS notifications are both timely and accurate,

SCE explains several ways in which it ensures timely and accurate PSPS notification including a new, automated alert systems and coordination with the California Office of Emergency Services (CalOES).

ii. the number of PSPS events initiated during the prior quarter,

SCE initiated three PSPS events from May 2020 to July 2020.

iii. the number of pre-event notifications sent for each event, and

SCE provides the requested information in Tables 31 and 32 of its QR.

iv. the number of false-positive pre-event notifications (i.e. a customer was notified of an impending PSPS event that did not occur) for each event.

While SCE does not explicitly provide this information, it has provided all the notification information, at each step of the PSPS process, and actual, realized de-energization information. "False-positive" can be derived from these figures.

SCE-20 is one of only a few conditions that require ongoing quarterly reporting because the WSD recognized that notifications related to PSPS events seem to be a persistent issue for SCE and thus require ongoing monitoring. Issues with SCE's PSPS event notifications continued to manifest throughout 2020, as evidenced by PSPS post-event reports and associated comments, with customers frequently being notified of PSPS events that never materialized (i.e., false-positive) and customers also being de-energized with no advanced notification (i.e., false-negative). These PSPS event-related notifications provide vital information to SCE's customers and must be executed in accordance with the Commission's requirements. Although not specifically mandated in SCE-20, it is the WSD's expectation that SCE implement corrective actions to resolve issues associated with its PSPS event notifications during 2021 PSPS events.

Action SCE-27: In its 2021 WMP Update, SCE shall: 1) describe the lessons learned during the implementation of its 2020 PSPS events, and 2) detail the corrective actions it has taken to resolve the issues (i.e., both issuance of false-positive and false-negative notifications) associated with its PSPS event notifications in 2020.

5.1.27. Condition (SCE-21, Class B):

Lack of sufficient detail on sharing of best practices.

WSD finding for SCE's Condition SCE-21 response: Sufficient

In its first quarterly report, SCE shall:

i. detail its progress regarding best practice sharing with entities outside of California,

SCE adequately describes the evolution of its best practice sharing from 2018-2020.

ii. include a description of how such interactions have changed or improved, including specific examples, and

SCE presents several lists of external engagements regarding best practice sharing and shares details of each meeting. For 2018, SCE presents several interviews with the media as part of its response to this condition. SCE should not confuse public outreach with sharing of best practices. While interviews with National Public Radio (NPR) can be important to delivering a consistent message to the public regarding wildfire mitigation efforts at SCE, it does not necessarily advance best practice sharing amongst SCE's business, scientific, and regulatory peers.

iii. include a description of how it has applied lessons learned into its 2020 WMP.

SCE details several incidents in which communications and collaborations with external entities yielded new insights for initiatives including covered conductor, rapid earth fault current limiters (REFCL), and unmanned aerial systems.

5.1.28. Condition (SCE-22, Class B):

SCE does not describe resources needed on fuel reduction efforts.

WSD finding for SCE's Condition SCE-22 response: Sufficient

In its first quarterly report, SCE shall describe:

i. whether it plans to collaborate with the USFS on fuel reduction programs in its service territory;

SCE explains that it already collaborates with the USFS on fuels reduction projects and cites relevant portions of its master special use permit (MSUP) as evidence. SCE is also performing a study to determine the "best use of fuel reduction" and anticipates completing this study by year-end 2020.

Action SCE-28: In its 2021 WMP Update, SCE shall provide a copy of its study to "determine the best use of fuel reduction" as an attachment.

ii. what programs or agreements, if any, it has in place with the USFS for fuel reduction programs;

In USFS land, SCE operates under a MSUP; this permit allows for fuel reductions activities. In addition, SCE has a cost recovery agreement with the USFS to ensure resources are available to assist SCE in its fuel reduction efforts. SCE is also currently partnering with Sierra National Forest on a National Environmental Policy Act (NEPA) document related to its Integrated Vegetation Management Plan (IVM), with the intention to expand the document's scope to all of USFS Region 5. Lastly, SCE has helped consolidate the majority of its own and PG&E's combined 650+ land use authorizations, with the goal of having "one or two land use authorizations per utility for each Forest to streamline operations and improve collaboration."

iii. the timeline for implementing initiatives identified in (i) and (ii);

SCE states that its MSUP is already in place and that its study for determining "the best use of fuel reduction," should be completed by the end of 2020.

iv. how it plans to identify the resources needed to collaborate with the USFS on fuel reduction; and

SCE has existing cost recovery programs to ensure USFS resources are available for SCE activities. In addition, SCE describes regularly scheduled meetings to facilitate proper implementation of the MSUP, discuss necessary resources, determine resource needs, and ensure timely completion of scheduled work.

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⁴³ SCE's QR at p. 284.

⁴⁴ SCE's QR at p. 284.

v. the status of reaching any formal agreements on fuel reduction efforts.

Fuel reduction agreements exist as part of SCE's current MSUP. Also, if SCE decides to move forward with additional fuel reduction efforts as a result of its opportunity study, SCE will "likely enter into a separate cost recovery agreement to support this work."⁴⁵

6. QR Response Timeline

While it is the WSD's goal to receive responses to the Actions identified in Section 5.1 of this document in the 2021 WMP Update, the WSD recognizes the limited time between the issuance of this evaluation and the February 5, 2021 due date for the 2021 WMP Update. Accordingly, the WSD urges SCE to respond to as many of the Actions in Section 5.1 as reasonably possible in its 2021 WMP Update but will permit a single supplemental filing to address all insufficient elements of its QR not previously addressed in its 2021 WMP Update. This supplemental filing shall be submitted as soon as it is available but no later than February 26, 2021.

7. Conclusion

Catastrophic wildfires remain a serious threat to the health and safety of Californians. Electric utilities must continue to make progress toward reducing utility-related wildfire risk. With the finding of "Insufficient" for SCE's QR, the WSD intends to send a clear message to SCE that its WMP, RCP, and QRs must be of the highest quality and include sufficient detail and plans to facilitate transparency, allow for efficient review, and effectively implement potentially lifesaving wildfire risk mitigation initiatives. The WSD will continue to ensure SCE is held accountable for successfully executing the wildfire risk reduction initiatives presented in its 2020 WMP, RCP, and other required updates through the Division's continued audit and compliance work.

Finally, along with the issuance of this action statement, the WSD concurrently issues a Notice of Noncompliance document summarizing the findings and noncompliance issues detailed herein. The WSD notes that nothing in this action statement or the concurrent Notice of Noncompliance precludes the Commission from exercising its enforcement authority related to any findings or matters addressed in the present document.

Sincerely,

Caroline Thomas Jacobs

Director, Wildfire Safety Division California Public Utilities Commission

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⁴⁵ SCE's QR at p. 285.