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December 11, 2020

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California Public Utilities Commission
505 Van Ness Avenue
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SUBJECT: Southern California Edison Company's Second Change Orders Report

Director Thomas Jacobs,

In compliance with Resolution WSD-002, Ordering Paragraph 10, Southern California Edison Company (SCE) hereby submits its second Change Orders Report describing changes to wildfire initiatives set forth in its 2020-2022 Wildfire Mitigation Plan (WMP) and other changes under consideration as new information becomes available and as SCE gains experience and measures the outcomes of its initiatives.

BACKGROUND

On June 11, 2020, the California Public Utilities Commission (CPUC or Commission) ratified the Wildfire Safety Division's (WSD) Action Statements and associated Resolutions conditionally approving electric utilities' 2020-2022 WMPs. On June 19, 2020, the Commission issued the final utility Resolutions: Guidance Resolution WSD-002 and SCE-specific Resolution WSD-004.

Resolution WSD-002 directed the electrical corporations to submit two Change Orders Reports describing the changes to 2020-2022 WMP programs and initiatives being considered by the electrical corporation.¹ As stated, "the objective of the change order process is to ensure the electrical corporation continues to follow the most effective and efficient approach to mitigate its wildfire risk. This could change as new information becomes available and as the electrical corporation gains experience and measures the outcomes of its initiatives (p. 32)." SCE has limited this Change Orders Report to program or initiative changes 1) that have a significant increase or decrease in scale from an activity's 2020 program target, 2) where an initiative was suspended or ended,

¹ SCE submitted its first Change Orders Report on September 11, 2020.

and 3) for programs and strategies that have evolved or are anticipated to continue to evolve based on new information and analysis.

This Change Orders Report does not include changes to initiatives that are still being evaluated and/or anticipated in year 2021 and beyond. As SCE explained in its 2020-2022 WMP, efforts to improve its wildfire risk reduction programs and strategies will continue to evolve based on new information and analysis.

SECOND CHANGE ORDERS REPORT

SCE’s Second Change Orders Report is organized by category as described in its 2020-2022 WMP. The major program subheadings start with either the section in the 2020-2022 WMP that describes the affected program or the specific initiative that has been modified, reduced, increased, suspended, or ended. These are followed by the section or activity descriptions included in the 2020-2022 WMP. A reference name is included in the subheading that outlines the enhancement, change, or modification. Each proposed change includes the relevant program/initiative name and/or number, where it is discussed in SCE’s 2020-2022 WMP narrative² and tables,³ budgetary details,⁴ the type of change being proposed, justification, and expected outcomes.

PROPOSED CHANGES

A. Grid Operations and Protocols Initiative Change

I. Proposed Change: PSPS-2, Increase in Scale

- a. The initiative being altered with reference to where in the WMP the initiative is discussed in the narrative and tables, along with the planned budget:

PSPS-2 Proposed Change

2020-22 WMP Section:	Section 5.3.6.5.1 Community Resource Centers, pp. 165-166 (PSPS-2)
2020-22 WMP Table:	Table 26, Initiative Activity 5.1. PSPS events and mitigation of PSPS impacts: community resource centers (PSPS-2)
2020 Program Target:	Have 23 sites available across SCE service territory for customers impacted by a PSPS

² See SCE’s 2020-2022 Wildfire Mitigation Plan - Revision 03.

³ See SCE’s 2020 WMP Tables 1-31 Revision 02.

⁴ Forecasted spend is provided for 2020, 2021-2022 forecasts will be provided in SCE’s 2021 WMP Update submission.

Proposed Change / Type:	As noted in its 2020-2022 WMP, SCE anticipated that the community resource center (CRC) scope recommendation would be finalized in 2020 (post-2020-2022 WMP submission) ⁵ as it improves its ability to ensure timely deployment and customer access to CRCs in coordinated locations. SCE increased its count of CRC locations to 56 sites with which it contracts to activate in the case of a PSPS event.
2020 Planned Spend:	\$2.3 million (Source: Table 26, Initiative Activity 5.1)
Spent in 2020 YTD:	\$0.6 million as of October 2020
Planned Spend – Remainder of 2020:⁶	\$0.5 million
Redeployment of Funds in 2020:	No funds have been identified for redeployment for this activity

b. A detailed description of the proposed change:

To ensure timely deployment and customer access in coordinated locations, SCE is contracting with 33 sites to serve as Community Resource Centers (CRCs), in addition to the original 2020-2022 WMP 2020 program target of 23 sites. As detailed in SCE’s Access and Functional Needs (AFN) Quarterly Update filed on September 1, 2020,⁷ SCE continues its efforts to establish community assistance locations and address customer needs during a de-energization event.

SCE used lessons learned from the CRC activations during PSPS de-energizations in 2019, and worked with Public Safety Partners to identify new CRC locations and additional services and amenities that can be provided to impacted customers at the CRC locations. In 2020, SCE increased its count of CRC locations to 56 sites with which it contracts to activate in the case of a PSPS event. Of the 56 locations, 43 operate between the hours of 8 a.m. – 10 p.m., as required by the CPUC. SCE intends to maintain its contracts with the 13 CRCs with shorter operating hours so that they may be activated in a community if there is an inadequate number of CRCs that can operate the full required hours to serve customers. SCE is also working with the remaining locations to see if hours of operation can be increased, consistent with the other locations.

⁵ See SCE’s 2020-2022 Wildfire Mitigation Plan - Revision 03, filed March 18, 2020, p. 166.

⁶ Forecasted spend is provided for 2020, 2021-2022 forecasts will be provided in SCE’s 2021 WMP Update submission.

⁷ See SCE’s AFN Quarterly Update for PSPS Support Pursuant to Commission Decision in Phase Two of R.18-12-005 filed on September 1, 2020.

SCE considered various factors in identifying optimal locations for the CRCs. SCE identified communities based on a forecast of circuits that have a high likelihood of being impacted by PSPS in 2020. This forecast considered factors such as historical wind data, grid-hardening efforts in progress, and whether the circuits serve vulnerable communities. The locations for the new CRCs were also based on an analysis of the population and demographics of impacted customers residing in SCE's High Fire Risk Areas (HFRA). SCE also considered site recommendations from Public Safety Partners, local governments, cities, counties, tribal governments and community based organizations (CBOs). SCE has tried to ensure the CRC locations are in key areas that are easy to access, have open space such as parking lots, are compliant with the Americans with Disabilities Act, have access to restrooms, climate control and electrical outlets, and have at least two egress routes and cellular network reception.

It is important to note that SCE's proposed change to PSPS-2 is to increase the number of locations available for CRC activations. The primary driver of costs related to CRCs are activations themselves, which is why SCE is not proposing additional or redeployed funds for this change.

II. Justification for the proposed change

Pursuant to the CPUC Decision Adopting Phase 2 Updated and Additional Guidelines for De-Energization of Electric Facilities to Mitigate Wildfire Risk (PSPS Phase 2 Decision),⁸ SCE submitted a CRC Plan that includes a description of the steps taken by SCE in identifying potential CRC sites, the criteria for siting CRCs, the considerations for contracting with a CRC site, SCE's process for obtaining feedback from external parties on the CRC Plan, determination of the resources needed to serve the community members who visit the CRC during PSPS events, and steps SCE has taken to ensure safety during the COVID-19 pandemic.⁹ Increasing the number of CRCs available for activation in SCE's HFRA improves the effectiveness of this initiative. Through greater coverage of available locations, SCE can better serve more customers through easier access to CRCs. Proximity to a CRC is very critical for customers impacted by PSPS, especially customers with access and functional needs and medical baseline customers.

III. Change in expected outcomes from the proposed change

- a. What outcomes, including quantitative ignition probability and PSPS risk reduction, was the changed initiative expected to achieve in the 2020 WMP?

While CRCs do not directly reduce probability or consequence of ignitions nor do they serve as shelters, they are facilities where customers impacted by a PSPS de-

⁸ Decision (D.) 20-05-051, which was adopted by the Commission on May 28, 2020.

⁹ See SCE's Community Resource Center Plan for PSPS Support Pursuant to Commission Decision in Phase Two of R.18-12-005 submitted on August 4, 2020.

energization can get assistance during a PSPS event, thus reducing PSPS impacts on customers. While PSPS de-energization events can be disruptive and stressful, CRCs are a key resource for our customers impacted by PSPS de-energizations. Customers can check SCE’s website for the location of activated CRCs. Customers that visit a CRC benefit by having a place to rest, recharge cell phone batteries, use medical equipment, and obtain amenities such as bottled water, light snacks, ice, and ice vouchers. Customers can also learn more about PSPS and SCE’s resiliency programs and incentives.

- b. What outcomes, including quantitative ignition probability and PSPS risk reduction, will the initiative deliver with the proposed adjustment?

Increasing the scale of SCE’s CRC program supports more customers’ needs during PSPS events, thus reducing the potential impact of a PSPS de-energization. The location and timing of CRC locations are selected based on an assessment of circuits most likely to be impacted by a PSPS event and in consultation with local governments in the impacted area. Additionally, the PSPS Phase 2 Decision imposes certain requirements on CRCs such as location criteria, hours of operation, and services. CRCs will be activated from 8 a.m. – 10 p.m. during an active event unless the event ends before 10 p.m. or the government facility at which the CRC is located provides guidance otherwise. Based on these regulatory requirements and stakeholder feedback on the need for temporary relief and additional information during PSPS de-energization events, it is imperative to have swift access to enabled (ready for activation) CRC sites across both urban and remote areas in SCE’s HFRA.¹⁰

SCE will continue to seek feedback from community stakeholders on the siting, services, and experiences at the CRCs and continue to evolve and adapt to new emerging needs.

B. Asset Management and Inspections & Vegetation Management and Inspections Initiative Changes

I. Proposed Change: Asset and Vegetation Management and Inspections, Other Change (Modification to Methodology)

- a. The initiatives being altered with reference to where in the WMP the initiatives are discussed in the narrative and tables, along with the planned budgets:

Asset and Vegetation Management and Inspections Proposed Changes

2020 WMP Sections:	Section 5.3.4.9.1 High Fire Risk Informed Inspections of Distribution Electric Lines and Equipment, pp. 139-140 (IN-1.1)
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¹⁰ If a CRC cannot be established in a particular community, SCE may utilize one or more of its Community Crew Vehicles (CCVs) to support the community impacted by a PSPS event.

	<p>Section 5.3.4.10.1 High Fire Risk Informed Inspections of Transmission Electric Lines and Equipment Overview, pp. 143-144 (IN-1.2)</p> <p>Section 5.3.4.16 Generation High Fire Risk Informed Inspections in HFRA, pp. 147-148 (IN-5)</p> <p>Section 5.3.5.4 Emergency Response Vegetation Management due to Red Flag Warning or Other Urgent Conditions, p.153</p>
2020 WMP Tables:	<p>Table 24: Initiative Activity 9.1. IN-1.1: High Fire Risk Informed Inspections – Distribution Initiative Activity 10.1. IN-1.2: High Fire Risk Informed Inspections – Transmission Initiative Activity 16. IN-5: High Fire Risk Informed Inspections – Generation</p> <p>Table 25: Initiative Activity 4. Emergency Response Vegetation Management due to Red Flag Warning or Other Urgent Conditions</p>
2020 Program Target:	Various, see Table SCE 5-1: 2020 Program Targets, pp. 67-75
Proposed Change/Type:	<p>During the 2020 fire season, SCE identified 17 Areas of Concern (AOCs) in its HFRA, primarily driven by elevated dry fuel levels that pose increased fuel-driven and wind-driven fire risk. In order to mitigate this risk, a dedicated team managing inspections, remediation and vegetation was required to accelerate inspections, remediation and vegetation trimming and removal in the identified AOCs. This program primarily supplements the following 2020 WMP initiative activities:</p> <ul style="list-style-type: none"> • IN-1.1: High Fire Risk Informed Inspections – Distribution • IN-1.2: High Fire Risk Informed Inspections –Transmission • IN-5: High Fire Risk Informed Inspections – Generation • WMP Section 5.3.5.4: Emergency Response Vegetation Management due to Red Flag Warning or Other Urgent Conditions
2020 Planned Spend:	\$3.6 million (Source: 2020 forecast for initiatives listed above in the 2020-2022 WMP filing; does not include additional inspections detailed in SCE’s First Change Orders Report ¹¹)
Spent in 2020 YTD:	\$12.8 million, including \$0.9 million for the AOC modification to methodology as of October 2020
Planned Spend – Remainder of 2020:¹²	\$4.2 million for the AOCs modification to methodology

¹¹ See SCE’s First Change Orders Report, filed on September 11, 2020.

¹² Forecast spend is provided for 2020, 2021-2022 forecasts will be provided in SCE’s 2021 WMP Update submission.

Redeployment of Funds in 2020:	No funds have been identified for redeployment for this activity
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b. A detailed description of the proposed change:

As described in SCE’s 2020-2022 WMP, “SCE is continuing to improve its inspection programs to incorporate more risk-informed approaches and lessons learned from the 2019 and 2020 inspections. This may result in SCE conducting additional High Fire Risk-Informed Inspections (HFRI) in 2020 and modifying the number of additional inspections in 2021 and 2022.”¹³ The 2020 fire season has been significant, with large fires occurring across the state in summer months, and unique, in that many of the early season fires were driven more by dry fuels and less by wind events. During the 2020 fire season, SCE identified 17 AOCs in its HFRA, which are areas that posed increased fuel-driven and wind-driven fire risk primarily due to elevated dry fuel levels. This threat can be magnified during periods of high wind, high temperatures and low humidity, as forecasts predicted for Fall 2020 in Southern California. The methodology to identify the AOCs, which is a modification to SCE’s prior risk prioritization methodology for inspections, was based on several factors, including fire history, weather conditions, fuel type, exposure to wind, and egress, among others. The analysis included all Distribution, Transmission, and Generation structures associated with whole circuits and the surrounding topographical area in the identified AOCs. SCE determined that ground inspections and remediation work in the AOCs were necessary to mitigate ignition risk and vegetation management to reduce the consequence risk of fuels-driven and wind-driven fires.

In order to mitigate the potential risk, SCE accelerated inspections, remediation and vegetation trimming and removal in the identified AOCs. SCE performed ground inspections consisting of a circuit walk to ensure inspection of all assets tied to the identified circuits in the AOCs. SCE generally conducts HFRI by focusing on a defined list of structures based on either compliance or risk scores.¹⁴ With AOCs, however, inspections are based on all structures associated with whole circuits and the surrounding area. Any findings are then remediated expeditiously, with prioritization of structures with a high probability of ignition (POI) in areas that have not had a burn, natural or human-caused, in recent years.

These inspections are coupled with vegetation management inspections, to reduce the risk of fuels-driven and wind-driven fires, and Infrared ground inspections and image capture of structures in the AOCs, to confirm remediation once complete.

As described in Section B.II below, the urgency of the conditions in SCE’s HFRA required SCE to modify, before the end of the 2020 wildfire season, its inspection,

¹³ See SCE's 2020-2022 Wildfire Mitigation Plan - Revision 03, filed March 18, 2020, p. 140.

¹⁴ See SCE's 2020-2022 Wildfire Mitigation Plan - Revision 03, filed March 18, 2020, pp. 134-137, 139-140, 143-144 and 147-148 that describes SCE’s HFRI.

remediation and vegetation methodology in multiple AOCs where the consequence would have been significant if a wildfire were to occur.

II. Justification for the proposed change

California has experienced an abnormal 2020 wildfire season due to factors including, for example, dry lightning, significant tree mortality, firefighting resource drawdown, record heat, and near record dry-dead fuel conditions. These factors, combined, created an especially volatile situation. In analyzing these contributing factors to wildfire risk, SCE modified its inspection and maintenance priority approach to combat the heightened threat. SCE identified multiple AOCs in the near term where the consequence of fires could be significant to its communities, customers, and facilities if an ignition were to occur.

SCE's Fire Science team performed a comprehensive analysis of the SCE service territory to analyze this emergent risk. Based on recent fire activities on the West Coast and key factors contributing to the expansion of multiple fires, SCE determined that specific locations had a higher than usual level of fuel propagation that needed further investigation of mitigation strategies to minimize the threat of wildfire. This risk-informed approach to identifying AOCs in the HFRA was based on the following considerations:¹⁵

- Last time the area has burned
- Fire history [frequency and seasonal occurrence]
- Vegetation type and amount
- Current and expected fuel and weather conditions
- Impact to communities and SCE infrastructure
- Circuit health and performance

SCE concluded the analysis by identifying 17 locations as AOCs and within those 17 AOCs, SCE performed inspections and remediation of urgent Priority 1 (P1) and Priority 2 (P2) notifications in these AOC locations.

SCE considered other options such as not performing this work and allowing other mitigations to address issues found (e.g., through the HFRI process, engineering scoping, grid hardening, customer driven work, etc.). Given the urgency of the conditions within the AOCs, SCE believed that without this change, there would be an unacceptable delay in finding and repairing issues, potentially exposing SCE's communities, customers and facilities to high consequence fires if an ignition were to occur. Though SCE will continue to pursue these alternative options for the 2021 fire season and beyond, the expedited timeline to address these emergent circumstances did not facilitate SCE pursuing these options in 2020.

¹⁵ The priority order of these areas could change depending on weather conditions (i.e., strong winds, precipitation, etc.) that may occur.

III. Change in expected outcomes from the proposed change

- a. What outcomes, including quantitative ignition probability and PSPS risk reduction, was the changed initiative expected to achieve in the 2020 WMP?

SCE's Enhanced Overhead Inspection (EOI) program in 2019 demonstrated that the requirements, scope and frequency of compliance-driven grid patrols and overhead detailed inspections were insufficient in detecting a large number of potential hazards which, if not remediated, would increase the risk of ignition in HFRA. Deterioration of overhead structures and assets increases the probability of failures and faults and the associated risk of ignition associated with electrical infrastructure.

SCE continues to deploy a comprehensive inspection program for overhead facilities in HFRA to detect equipment issues and mitigate ignition risks that otherwise cannot be detected during compliance-driven inspections alone. These inspections will also be more frequent than the compliance requirements of every five years (distribution) or three years (transmission) and will focus on identifying equipment or structure degradation due to natural wear and tear or emergent events since the 2019 inspections. Though it was necessary to inspect all circuits in 2019 to set a baseline, the frequency and scope of inspections in 2020 and beyond have been adjusted based on risk analysis as described in the proposed change above.

As risk levels vary across HFRA, a targeted quantitative approach has been deployed to balance resource allocation and costs with risk. For HFRI, SCE utilized its Wildfire Risk Model to calculate a probability and consequence risk score for every structure or pole in the HFRA. SCE developed a matrix based on three levels (high, medium and low) of POI and three levels of consequence of ignition using REAX (high, medium and low) at each structure or pole location. All structures or poles with high or medium consequence scores or high POI scores were targeted to be inspected in 2020. Inspections identify conditions in need of remediation and SCE prioritizes conditions and remediates items before they fail and cause a fault. Inspections that lead to remediations help reduce ignition probability factors.

- b. What outcomes, including quantitative ignition probability and PSPS risk reduction, will the initiative deliver with the proposed adjustment?

The objective of this adjustment is to further reduce risk of a devastating wildfire by prioritizing the inspection and associated remediations of structures with a high POI in areas that have not had a burn, natural or human-caused, in recent years, and have dry fuel levels that pose increased fuel-driven and wind-driven fire risk that, if ignited, could have serious consequence to SCE's communities, customers and facilities.

Moving forward, the analysis conducted above will be incorporated into SCE's latest risk modeling. However, emergent conditions may necessitate a similar pivot in future years. SCE continues to analyze findings of the latest inspection results and remediation

progress to inform its asset condition inputs to the POI model. Risk profiles change as more inspection data is compiled and analyzed and issues remediated, which will be reflected in future adjustment of SCE's risk-informed inspection cadence using improved risk modeling as described above.

Thank you for your consideration of these Change Orders. If you have any questions, or require additional information, please contact me at carla.peterman@sce.com.

Sincerely,

//s//

Carla Peterman
Senior Vice President, Strategy and Regulatory Affairs
Southern California Edison

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