Michael A. Backstrom
VP Regulatory Affairs
michael.backstrom@sce.com

04/08/2022

Caroline Thomas Jacobs, Director
Office of Energy Infrastructure Safety
California Natural Resources Agency
715 P Street, 20th Floor
Sacramento, CA 95814

SUBJECT: First Supplement to Southern California Edison Company's 2022 Wildfire Mitigation Plan Update

Dear Director Thomas Jacobs,

Southern California Edison Company (SCE) identified errata and other updates to its 2022 Wildfire Mitigation Plan Update (2022 WMP Update) submitted on February 18, 2022. This supplement consists of information that was identified and included in response to data requests, corrections to typographical errors, clarifications of, and changes to information contained within the 2022 WMP Update, and corrections to information contained within Appendix 9.9 Tables 1-12.[1] The updates are described below.

SUMMARY OF CHANGES TO THE 2022 WMP UPDATE

Table 1 provides a summary of the Changes to the 2022 WMP Update. SCE describes each of these changes in more detail in the sections that follow. The item number references in Table 1 correspond to the narrative heading levels that follow below.[2]

Table 1
Summary of Changes to the 2022 WMP Update

Location	Summary of Changes	Item #
Executive Summary (p. 8)	Corrected count of activities with calculated RSEs	B1

[1] SCE notes that updates to Appendix 9.9 Tables 1-12 contain the same tables as the non-spatial tables in the Quarterly Data Report (QDR). SCE has updated the non-spatial data tables in its Q4 2021 QDR which can be found on its website (https://www.sce.com/safety/wild-fire-mitigation).
[2] Information in Table 1 is in ascending order based on the location in the 2022 WMP Update.

Chapter 1 (pps. 13-18)	Updated “Persons Responsible for the WMP”. This information was provided in response to OEIS-SCE-22-001 Q02.	A1
Section 3.1, Table 3-2 (p. 27)	Corrected recorded and forecast amounts to align with changes identified in Table 12 shown below	B2
Section 4.1 (pps. 29-34)	Included visual/graphical representations for lessons learned. This information was provided in response to OEIS-SCE-22-001 Q03.	A2
Section 4.3.7 (pps. 66 - 67)	Corrected MARS 2.0 Consequence Attributes, AFN and NCRI formulas	B3
Section 4.3.8 (p. 69)	Corrected count of additional activities in RSE Portfolio	B4
Section 4.3.8, Table SCE 4-11 (pps. 72 -76) Section 7.3.3.17.1 (p. 337)	Corrected RSEs for Undergrounding (SH-2) Transmission Open Phase Detection (SH-8), and Expanded Pole Brushing (VM-2) and language related to Transmission Open Phase Detection ’s RSE	B5
Section 5.3.1 (Table 5.3-1) (pps. 128-149)	Updated “Assumptions, frequency and validation” in the plan program targets table. This information was provided in response to OEIS-SCE-22-001 Q04.	A3
Section 5.3.1 (Table 5.3-1) (p. 130)	Corrected note on top risk percentage for Branch Line Protection Strategy (SH-4)	A4
Section 5.3.1 (Table 5.3-1) (p. 130) Section 7.3.3.9 (p. 315) Appendix 9.9 - Table 12	Corrected 2021 Remote Controlled Automatic Reclosers Settings device counts (SH-5)	B6
Section 5.3.1 (Table 5.3-1) (p. 136) Section 7.3.4.9.1	Corrected 2021 Aerial Distribution inspection unit counts (IN-1.1)	B7

(pps. 368-369) Appendix 9.9 - Table 12		
Section 5.3.1 (Table 5.3-1) (p. 139) Section 7.3.4.11.1 (pps. 380-381) Appendix 9.9 - Table 12	Corrected 2021 Aerial Transmission inspection unit counts (IN-1.2)	B8
Section 5.3.1 (Table 5.3-1) (p. 136) Section 7.3.5.16.1 (pps. 426) Appendix 9.9 - Table 12	Corrected 2021 Hazard Tree Mitigation Programs assessments (VM-1)	B9
Section 5.3.1 (Table 5.3-1) (pps. 141-146)	Corrected PUC Code referenced for Vegetation Management Activities	B10
Section 5.3.1 (Table 5.3-1) (p. 147)	Corrected 2021 Customer Participation percentage for Residential Battery Station Rebate & Well Water Generator Rebate (PSPS-2)	B11
Section 5.3.1 (Table 5.3-1) (p. 147)	Corrected missing language from SCE Emergency Responder Training (DEP-2) 2019 goal	B12
Section 7.2.C (p. 253)	Corrected count of structures planned for QC inspections in 2022	B13
Section 7.3.3.16.1 (p. 336)	Corrected mitigation effectiveness statement to reflect mitigated risk is calculated at the circuit level (rather than circuit segment)	B14
Section 7.3.4.14 (p. 386)	Added clarifying statement related to count of pole loading assessments planned for 2020	A5
Section 7.3.5.16.2 (p. 420)	Added clarifying statement related to the remediations that did not pass QC inspection in 2021 for the Dead and Dying Tree Program	A6

Section 8.1 (p. 519)	Corrected count of 2021 customers deenergized.	A7
Section 8.6 (pp. 572-583)	Included map of frequently de-energized circuits. This information was provided in response to OEIS-SCE-22-003 Q02	A8
Appendix 9.9 - Table 3	Corrected CPUC reportable ignitions in High Fire Risk Areas (HFRA)) for Q2 2021 and Q3 2021	C – Table 3
Appendix 9.9 - Table 8	Corrected state of service territory and equipment in urban, rural and highly rural areas for total circuit miles (WUI and non-WUI) to include underground miles	C – Table 8
Appendix 9.9 – Table 11	Corrected Critical infrastructure impacted by PSPS customer count	C – Table 11
Appendix 9.9 – Table 11	Corrected number of customers impacted by PSPS customer count	C – Table 11
Appendix 9.9 – Table 11	Corrected number of medical baseline customers impacted by PSPS customer count	C – Table 11
Appendix 9.9 – Table 11	Corrected number of customers notified prior to initiation of PSPS event count	C – Table 11
Appendix 9.9 – Table 11	Corrected number of medical baseline customers notified prior to initiation of PSPS event count	C – Table 11
Appendix 9.9 - Table 12	Corrected 2022 territory-wide and HFTD costs for Transmission Open Phase Detection (SH-8)	C – Table 12
Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for Vegetation Management Transmission Pre-Inspection and Line Clearing	C – Table 12
Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for Patrol inspections of vegetation around transmission electric lines and equipment	C – Table 12

Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for Vegetation management to achieve clearances around electric lines and equipment	C – Table 12
Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for PSPS events and mitigation of PSPS impacts	C – Table 12
Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for Customer Education and Engagement - Marketing Campaign	C – Table 12
Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for Installation of System Automation Equipment – RAR (SH-5)	C – Table 12
Appendix 9.9 - Table 12	Corrected 2022 and 2023 territory-wide and HFTD costs for Vibration Dampers (SH-16) 2022 and 2023 units	C – Table 12
Appendix 9.9 - Table 12	Corrected REFCL (SH-17) 2021 territory-wide and HFTD costs and units, and units for 2023	C – Table 12
Appendix 9.9 - Table 12	Corrected Vertical Switches (SH-15) 2021 territory-wide and HFTD costs	C – Table 12
Appendix 9.9 - Table 12	Corrected 2021 territory-wide and HFTD costs for Alternative Technology Pilot Programs	C – Table 12

Below, SCE provides a more detailed explanation of each of the changes to the 2022 WMP Update.

A. Corrections to Provide Additional Information, Clarify or Remove Statements

A1. Chapter 1 (Persons Responsible for Executing the WMP):

In response to OEIS-SCE-22-001 Q2, SCE provided additional information regarding persons responsible for various sections of the WMP. The questions and response are provided below.

Regarding Section 1 – Persons responsible for executing the WMP:

a. The Guidelines for section 1 require the provision of "Program owners specific to each component of the plans" and that "each section must have a program owner accountable." No program owner was specified for sections 7.1 and 7.2 in Table SCE 1-1.

i. Provide an updated Table SCE 1-1 that indicates the person(s) responsible for sections 7.1 and 7.2.

ii. If there are no owners for sections 7.1 and 7.2, explain how any data requests or questions regarding those sections should be directed.

SCE Response:
a.i. SCE inadvertently did not specify programs owners and their contact information for Section 7.1 (Wildfire Mitigation Strategy) and Section 7.2 (Wildfire Plan Implementation) in Table SCE 1-1 in its 2022 WMP Update. SCE would like to update the table to include these two sections in a future 2022 WMP Update Revision. Please see below for an update to Table SCE 1-1 for Sections 7.1 and 7.2.

Table SCE 1-1
2022 Wildfire Plan Overall and Section Responsibility

Wildfire Mitigation Plan Section	Program Owner(s): Name and Title	Contact Information: Email and Phone Number	Component (if entire section, put "entire section"):
Section 7.1: Wildfire Mitigation Strategy	Rajdeep Roy, Director (Wildfire Safety)	(626) 302-1636 Rajdeep.Roy@sce.com	Entire Section
Section 7.2: Wildfire Plan Implementation	Connor Flanigan, Director (Audit Services) Rajdeep Roy, Director (Wildfire Safety) Melvin Stark, Principal Manager (Regulatory Affairs and Compliance)	(626) 302-6411 Connor.Flanigan@sce.com (626) 302-1636 Rajdeep.Roy@sce.com (626) 553-0070 Melvin.Stark@sce.com	Section 7.2.a Sections 7.2.a, 7.2.b, 7.2.d Section 7.2.c

a.ii. N/A

A2. Section 4.1 (Lessons Learned)

In response to OEIS-SCE-22-001 Q3, SCE provided additional visual/graphical lessons learned as mentioned in Table SCE 4-1 of the WMP. The questions and response are provided below.

Regarding Section 4.1 – Lessons Learned:

a. The Guidelines for section 4.1 include a requirement that "If any of the lessons learned are derived from data, include visual/graphical representations of this/these lesson(s) learned." According to Table SCE 4-1, it appears multiple changes made to the WMP are derived or based at least in part on data.

i. Please indicate if and where within the WMP are relevant visuals for the following changes (as taken from Table SCE 4-1): Risk Assessment and Mapping – Additional weather scenarios and granular fuel data; Risk Assessment and Mapping – Mitigation Selection for High Consequence Segments; Situational Awareness – Longer evaluation periods for weather modeling enhancements (SA-3); Grid Design and System Hardening – Rapid Earth Fault Current Limiter (REFCL) (SH-17); Grid Design and System Hardening – Vibration Dampener Retrofit; Grid Design and System Hardening – Secondaries; Asset Management – Decrease in Distribution / Transmission HFRI inspections find rates (IN-1.1 and IN 1.2); and Vegetation Management and Inspections – Decrease in Scale of Dead and Dying Tree Removal Program (VM-4).

ii. Provide graphical representations for any of the changes noted in Q03ai for which there are no graphical representations in the 2022 WMP update.

iii. If SCE believes any of the above referenced changes in Q03ai are not "derived from data," indicate which changes and explain why.

SCE Response:

i. Please indicate if and where within the WMP are relevant visuals for the following changes (as taken from Table SCE 4-1):

Below, SCE notes either where within the WMP the relevant visuals are for the applicable table elements, or provides visual/graphical representations of each identified line-item. While the narrative provided in Table SCE 4-1 may provide adequate representation of the identified lessons learned, SCE hopes these additional visual/graphical representations help aide in the understanding of these lessons learned.

Risk Assessment and Mapping	Mitigation Selection for High Consequence Segments	SCE has performed analysis indicating that segments with consequence risk of 300 acres or greater within the first eight hours (High Consequence Segments) necessitate mitigation of the majority of risk for all significant ignition risk drivers.	SCE is further refining its mitigation selection based on this analysis to identify which distribution HFRA segments will be best served by which mitigation or suite of mitigations.

Risk Assessment and Mapping – Mitigation Selection for High Consequence Segments

- Please refer to SCEs 2022 WMP Figure SCE 7-20 (pg. 221) for a visual/graphical representation of Mitigation Selection for High Consequence Segments.

Risk Assessment and Mapping	Additional weather scenarios and granular fuel data	In the prior version of the Technosylva Wildfire Risk Reduction Model (WRRM), SCE utilized 41 weather scenarios. Similarly, SCE used fuels data accounting for present fuel conditions. SCE determined that a wider range of both fuel and wind driven conditions was needed for its risk modeling.	In 2021, SCE added an additional 400+ weather scenarios to better represent a wider range of both fuel and wind driven fire conditions. Similarly, SCE incorporated a more granular fuel model to account for fuel regrowth in recently burned locations with fuel regrowth projected out to the year 2030.

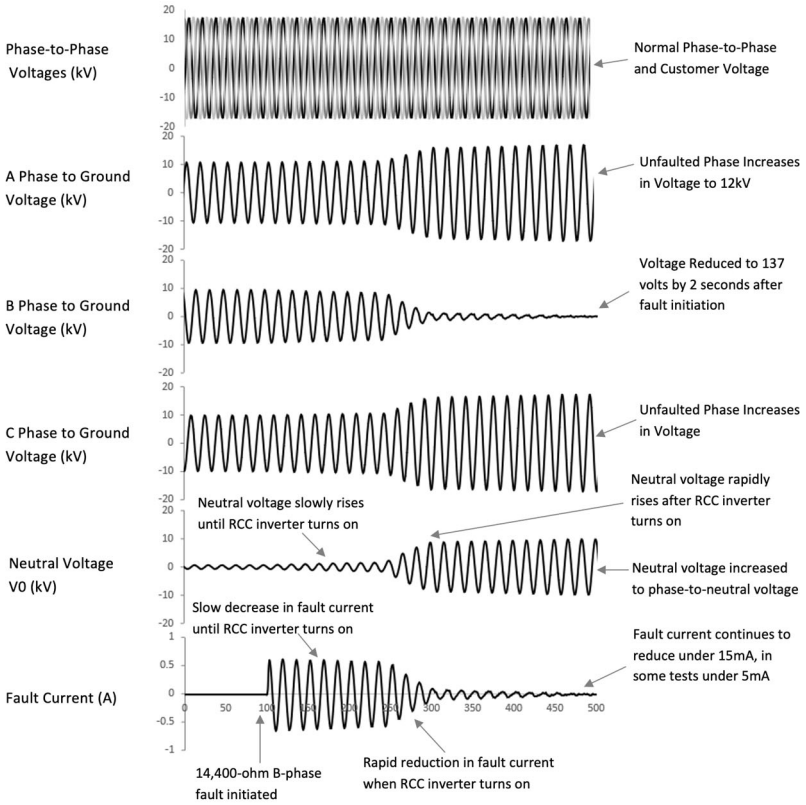
Risk Assessment and Mapping – Additional weather scenarios and granular fuel data

- Please refer to SCEs 2022 WMP Figure SCE 4-5 (pg. 45) for a visual/graphical representation of Additional weather scenarios and granular fuel data.

Grid Design and System Hardening	Rapid Earth Fault Current Limiter (REFCL) (SH-17)	SCE studied three REFCL technologies: Ground Fault Neutralizer (GFN), Resonant Grounded Substation (RGS), and Isolation Transformer (IT), to mitigate ground faults. SCE received the GFN and RGS equipment in 2020 and began construction in late 2021. SCE expected significant reduction in ignitions associated with phase-to-ground faults where GFN was deployed as compared to historical averages. Effectiveness was confirmed by staged fault tests showing voltage on the faulted conductor is reduced quickly enough to prevent the ignitions that the technology is designed to prevent.	SCE will begin developing GFN for more locations in 2022 and will continue to evaluate RGS and Information Technology (IT) in the pilot phase.

Grid Design and System Hardening – Rapid Earth Fault Current Limiter (REFCL) (SH-17)

- **Description:** Staged fault testing was performed in May 2021. In that testing the Ground Fault Neutralizer demonstrated its ability to detect and act on half ampere faults and reduce the energy release from both high and low impedance faults. See below for an example of waveforms which were measured during that testing. In this test, a 14,400-ohm resistor was connected to ground. The Ground Fault Neutralizer successfully detected and acted on this fault bringing the voltage on the faulted phase well under 250 volts within two seconds.

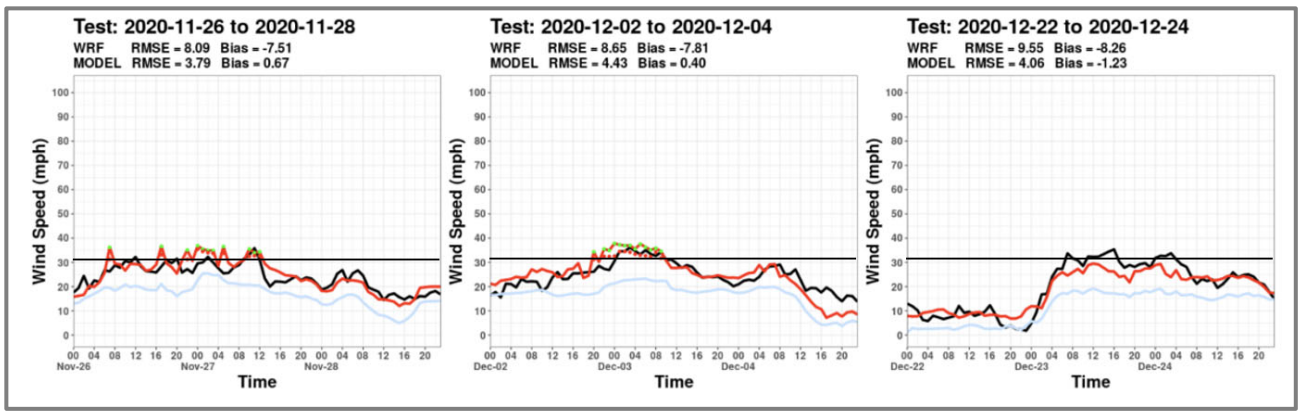


ii. Provide graphical representations for any of the changes noted in Q03ai for which there are no graphical representations in the 2022 WMP update.

Situational Awareness	Longer evaluation periods for weather modeling enhancements (SA-3)	PSPS customer notifications are based on weather modeling. More accurate weather modeling will improve the accuracy of customer notifications. However, enhancements to the models require time to properly test and evaluate before incorporating into operations. In 2020 and 2021, SCE made substantial improvements to the modeling, but needed more time to test before operationalizing the enhancements.	SCE will be deploying ML capabilities on 500 weather stations and is building earlier deadlines into its scope of work prior to the start of the 2022 fire season to provide for a longer evaluation period. The evaluation will include new verification statistics and more tailored output.

Situational Awareness – Longer evaluation periods for weather modeling enhancements (SA-3)

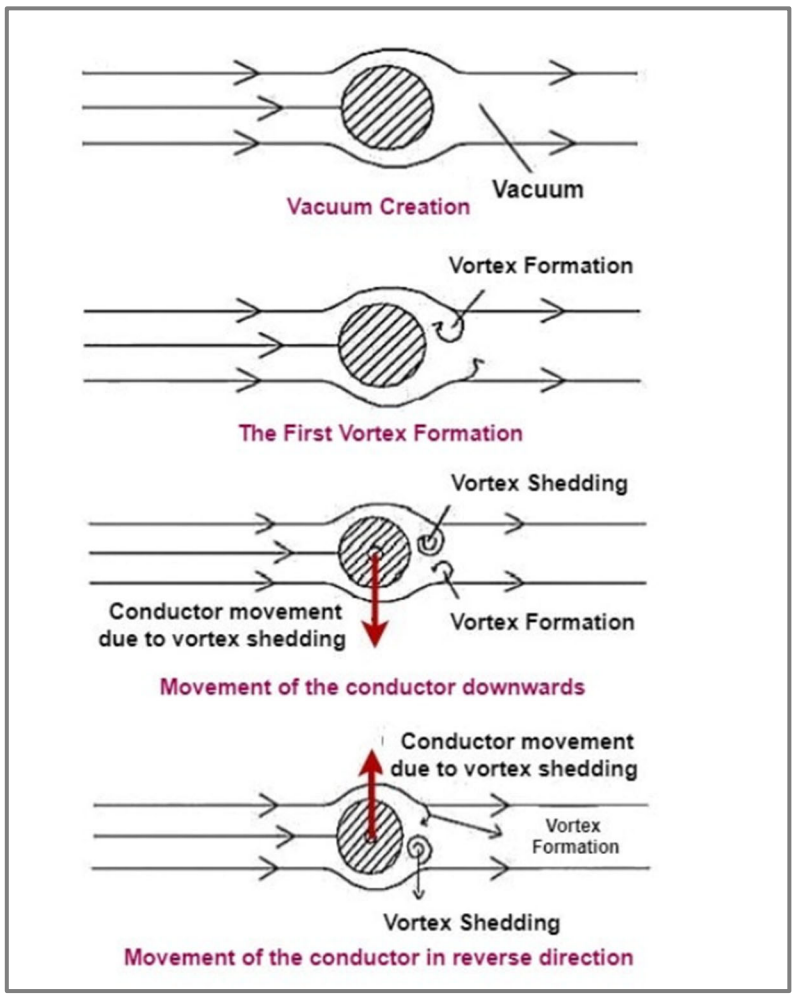
- **Description:** As provided in the Figure, the machine learning forecast (red) has been demonstrated to be effective at removing forecast biases present in raw weather model forecast (blue) when compared to available observations (black).



Grid Design and System Hardening	Vibration Damper Retrofit (SH-16)	A study was conducted to determine the susceptibility of the 2018 to 2020 covered conductor installations to Aeolian vibration.	SCE included a new activity in the 2022 WMP for Vibration Damper Retrofit to retrofit prior covered conductor installations with dampers designed to stop wind-driven Aeolian vibration that may lead to conductor abrasion or fatigue over time.

Grid Design and System Hardening – Vibration Dampener Retrofit

- **Description:** The graphic illustrates the mechanism of Aeolian vibration. However, for more information on Aeolian vibration and vibration dampers, please refer to the following report: https://www.preformed.com/th/images/pdfs/Energy/Transmission/EN-ML-1007-4_Aeolian_vibration_basics.pdf

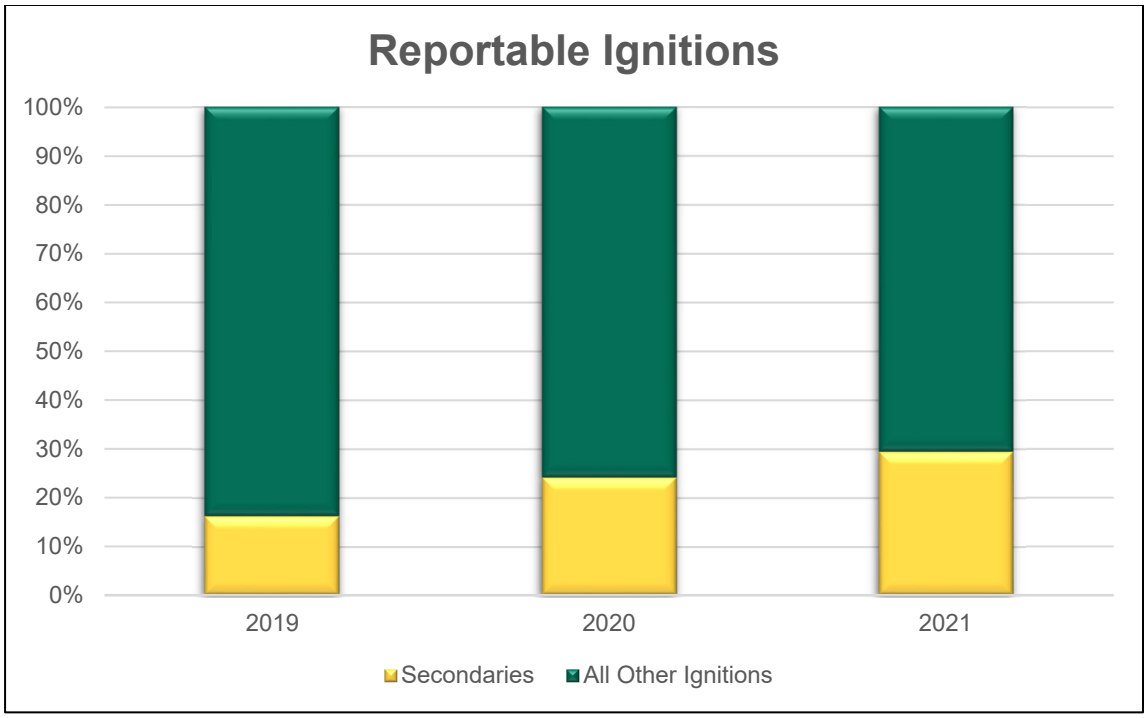


Citation: *Aeolian Vibration of Transmission Conductors*. StudyElectrical.Com. https://studyelectrical.com/2019/07/aeolian-vibration-of-transmission-conductors.html

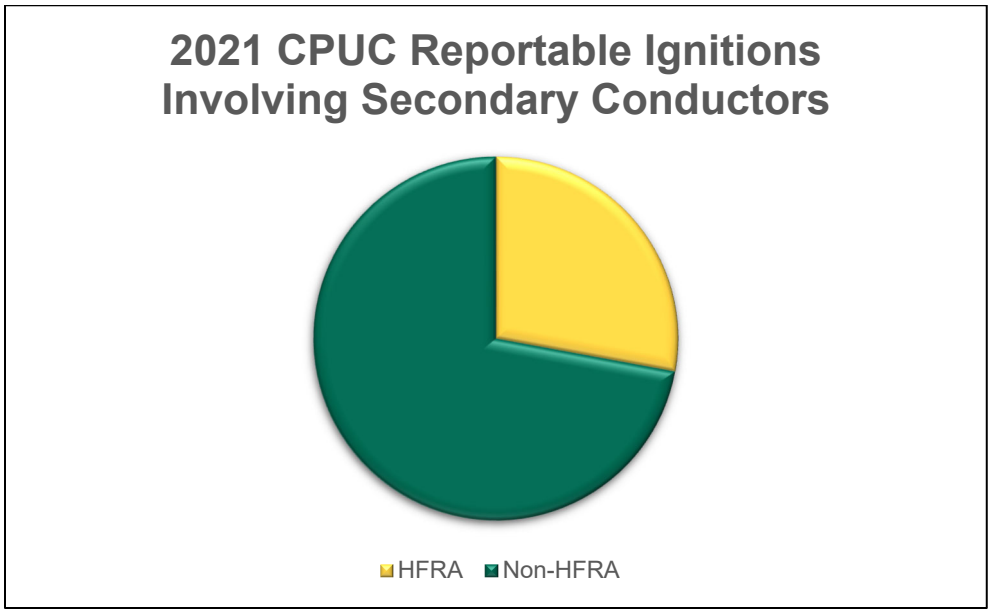
Grid Design and System Hardening – Secondaries

Grid Design and System Hardening	Secondaries	Between 2019 and 2021 there have been 99 California Public Utilities Commission (CPUC)-reportable ignitions where Secondary conductor is listed as the "Root Cause Equipment." Approximately 30% of CPUC-reportable ignitions in 2021 involved secondary conductors across SCE's service territory, with approximately 25% of these ignitions occurring in HFRA.	SCE is mitigating high risk secondary conductor locations, including remediating connectors and inspecting and trimming vegetation. SCE is also developing a long-term secondary connection covering to replace taping and is evaluating a breakaway that disconnects and de-energizes service and secondary connector at a predetermined mechanical load, which prevents ignitions if the wires fall due to fallen trees or excessive winds.

- **Description:** The below graph illustrates CPUC reportable ignitions from 2019-2021, split by those associated with secondary conductor and all other ignitions.



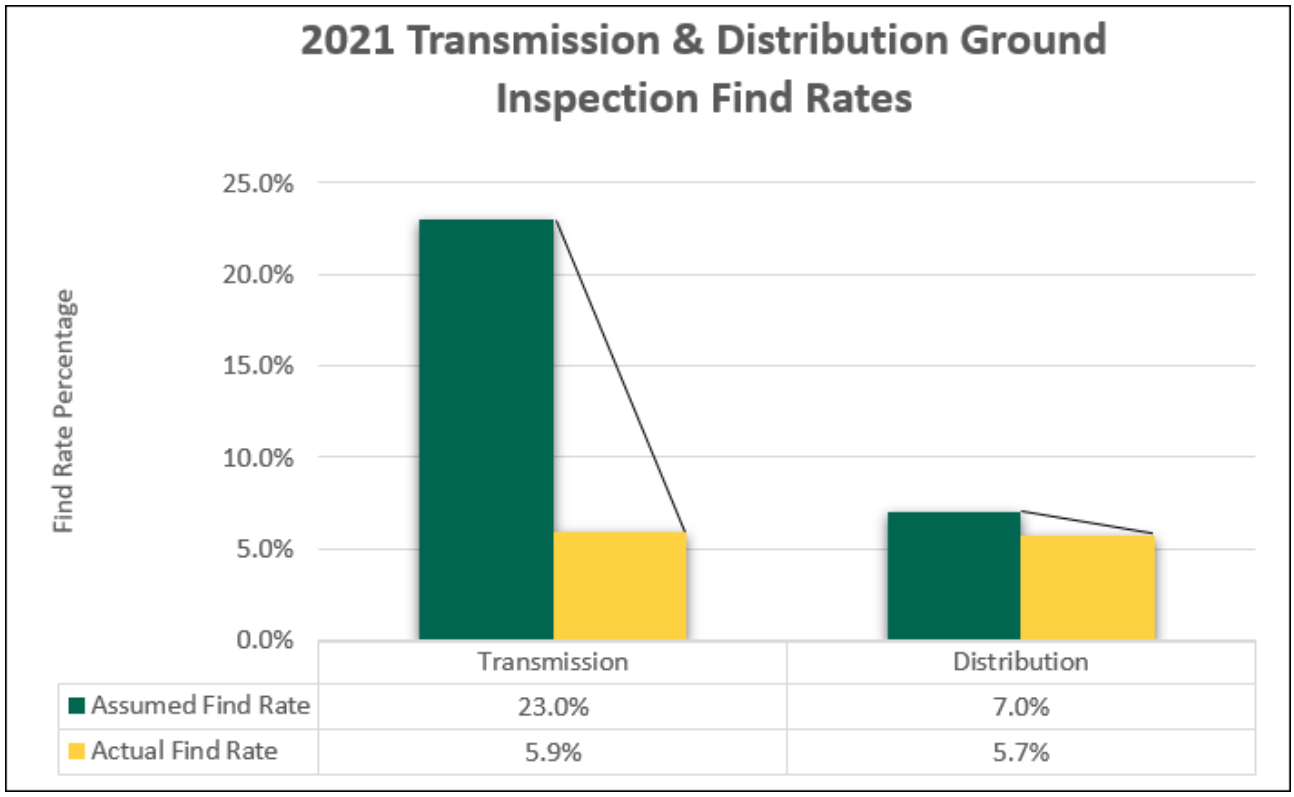
- **Description:** HFRA vs non-HFRA secondary caused ignitions that occurred in 2021.



Asset Management and Inspections	Decrease in Distribution / Transmission HFRI inspections find rates (IN-1.1 and IN-1.2)	SCE relied on historical find rates (i.e., the percentage of inspections that identify the need for a remediation) to forecast the remediation portion of HFRI inspections for the 2021 WMP. Notably, the assumed find rate for Distribution HFRI ground inspections in the 2021 WMP Update was 7.0%, based on inspections as of mid-year 2020. The actual find rate in 2021 has since come down to 5.7%.	SCE is assuming the lower find rate for planning purposes. This can reduce the number of contractors required to perform the work and allow for deployment of resources to other risk mitigation activities. SCE balances these opportunities with the potential for additional work that may result from changes or additions to the inspection form resulting from lessons learned throughout the year.

Asset Management – Decrease in Distribution / Transmission HFRI inspections find rates (IN-1.1 and IN 1.2)

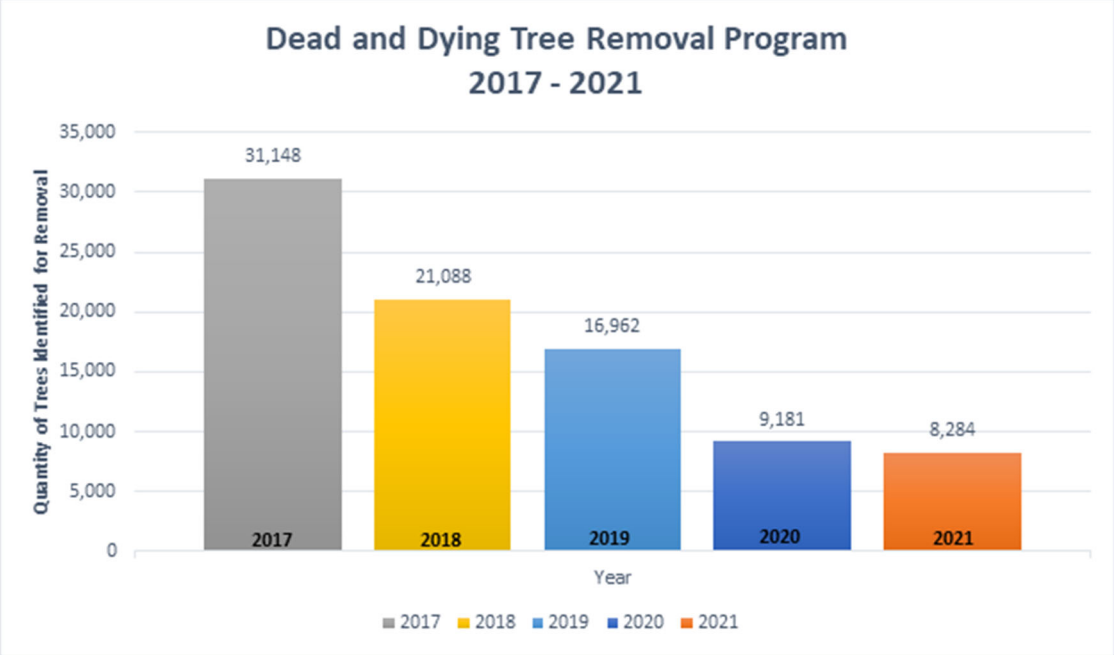
- **Description:** The below graph shows transmission & distribution ground inspection find rates for 2021.



Vegetation Management and Inspections	Decrease in Scale of Dead and Dying Tree Removal Program (VM-4)	The decrease in scale of the Dead and Dying Tree Removal Program is primarily due to a lower than anticipated find rate of dead, dying, and diseased trees, resulting in less work needing to be completed. Circuit patrols continue to be performed as planned for the year, however, the volume of trees in need of removal is lower than anticipated.	SCE reduced its 2021 WMP Forecast to align with actual dead and dying tree find rate and will take its findings from 2021 into account in its 2022 WMP.

Vegetation Management and Inspections – Decrease in Scale of Dead and Dying Tree Removal Program (VM-4)

Description: Below is a chart that illustrates the decrease in the quantities of trees identified for removal in the Dead and Dying Tree Removal Program from 2017 to 2021.



iii. If SCE believes any of the above referenced changes in Q03ai are not "derived from data," indicate which changes and explain why. SCE believes all of the above reference changes in

SCE believes all of the above referenced changes in Q03ai are derived from data and has provided references to the commensurate sections or graphical representations herein depicting the changes.

A3. Plan Program Target Table 5-3.1:

In response to OEIS-SCE-22-001 Q4, SCE provided additional information regarding the plan program target table including assumptions that underlie the use of metrics, update frequency and third-party validation. The questions and response are provided below.

Regarding Section 5.3 – Plan Program Targets:

a. The referenced section 5.3 does not address the requirement that for all plan program targets, the 2022 WMP update list "the assumptions that underlie the use of

those metrics, update frequency, and how the performance reported could be validated by third parties outside each utility, such as analysts or academic researchers."

i. If "the assumptions that underlie the use of those metrics, update frequency, and how the performance reported could be validated by third parties outside each utility, such as analysts or academic researchers" for plan program targets can be found in other sections of SCE's 2022 WMP submission, provide those sections and page numbers.

ii. If "the assumptions that underlie the use of those metrics, update frequency, and how the performance reported could be validated by third parties outside each utility, such as analysts or academic researchers" for plan program targets are not available in other sections of SCE's 2022 WMP, please provide that information.

SCE Response:
a. Please see the attachment OEIS-SCE-22-001 Q4.xlsx for updates to Plan Program Targets Table 5.3-1 for:

i. Assumptions that underlie program metrics (Column J). SCE notes that in many cases, there may be more detailed discussion within the applicable initiative sections in Chapter 7 (e.g., "Initiative Selection...", "Region Prioritization...") that provides further information on how the work was identified for 2022.

ii. Assumptions that underlie update frequency (Column K).

iii. How the performance reported could be validated by third parties outside each utility, such as analysts or academic researchers (Column L).

The updated Table 5-3.1 can be found at the bottom of this submission.

A4. Section 5.3-1 (Branch Line Protection):

SCE has discovered an error in Section 5.3.1 related to Branch Line Protection Strategy (SH-4) top-risk percentage. SCE stated "Approximately 25% of SCE's 2022 scope for SH-4 will target the remaining top 25% riskiest circuit segments. By the end of 2022, 100% of the currently identified remaining top 25% riskiest segments for SH-4 will be addressed. The top 25% riskiest circuit segments relate to the program circuit segment risk rankings from SCE's WRRM, as described in Section 4.3."

The statement should be stated as follows:

"Approximately 25% of SCE's 2022 scope for SH-4 will target the remaining top 25% riskiest circuit segments. ~~By the end of 2022, 100% of the currently identified remaining top 25% riskiest segments for SH-4 will be addressed.~~ The top 25% riskiest circuit segments relate to the program circuit segment risk rankings from SCE's WRRM, as described in Section 4.3.".

The updated Table 5-3.1 can be found at the bottom of this submission.

A5. Section 7.3.4.14 (Pole Loading Assessments)

SCE clarified Table SCE 7-28 related to the count of Pole Loading Assessments in the 2020 plan. The table as presented in the 2022 WMP Update is shown below.

Table SCE 7-28
Pole Loading Assessment Program

Year	Plan	Recorded
2020	1,205	1,216
2021	1,041	780 (261 not needed)

SCE added clarifying information to the table as shown below:

Table SCE 7-28
Pole Loading Assessment Program

Year	Plan	Recorded
2020	1,205*	1,216
2021	1,041	780 (261 not needed)

** Pursuant to SCE's First Quarterly Report on 2020-2022 Wildfire Mitigation Plan for Class B Deficiencies, SCE forecasted to perform 1,205 assessments in HFRA between August 1 and November 30, 2020.*

A6. Section 7.3.5.13 (Quality Assurance / Quality Control of Vegetation Management):

In response to CalAdvocates-SCE2022WMP-11 Q1, SCE provided additional information regarding the QC inspections performed in 2021 for SCE's Dead and Dying Tree Program. The questions and response are provided below.

Regarding SCE's Dead and Dying Tree Program, on p. 420 of SCE's 2022 WMP, SCE states: QC verifies that 100% of the completed remediations have been performed. In 2021, QC inspectors verified approximately 2,200 tree remediations. 133 tree remediations did not pass QC inspection, most of which were due to lack of site debris

clean up. These 133 tree remediations were reassigned to vegetation management contractors for re-work.

Please provide the following:

a) How many of the 133 tree remediations which did not pass inspection in 2021 were due to lack of site debris clean up?

b) What were the causes of tree remediations which did not pass inspection due to reasons other than lack of site debris cleanup, in 2021?

c) In 2020, how many tree remediations were verified by QC inspectors?

d) In 2020, how many tree remediations did not pass QC inspection?

e) In 2020, how many tree remediations which did not pass QC inspection were due to lack of site debris clean up?

f) What were the causes of tree remediations which did not pass inspection due to reasons other than lack of site debris cleanup, in 2020?

SCE Response:
QC for Dead and Dying Tree remediation commenced in 2021 and was not performed in prior years. In 2021, QC remediation verification was performed on 2,228 trees through the Dead and Dying Trees Program (DDTP). Based on the foregoing, SCE responds to (a) through (f) as follows:

a. 133[3]

b. No other causes

c - f. Not applicable. QC was not performed in 2020.

[3] SCE's information in the 2022 WMP referenced 133 trees as not passing QC inspection. However, after further review, SCE has identified 220 trees that failed QC inspection. Of the 220 failures, 133 were documented in the work management system as failures attributed to lack of site cleanup, and 87 did not include a cause for failure. Because the 220 trees were physically removed, it is reasonable to assume the 87 unspecified failures relate to lack of site cleanup. Prior to Q3 2021, it was not a requirement to provide a reason why a tree did not pass QC inspection. The 87 blank entries were wholly attributed to verifications being performed in Q1 and Q2 by SCE's DDTP contractor's QC staff and not through SCE's formal QC program. SCE subsequently took over its DDTP contractor's QC program commencing in Q3 2021. Since SCE took over the QC program for DDTP, SCE no longer has these same data quality issues.

A7. Section 8.1 (Summary):

Based on SCE's year-end review of PSPS events in 2021, the actual customers deenergized is 85,237, not 84,055 customers as SCE noted in Table 8-1 and described on page 519 as ~88,000, a typo. This number aligns with SCE's 2021 PSPS Post Season Report, which reflects final year-end, data. Updating this figure does not change the percent change in customers due to rounding.

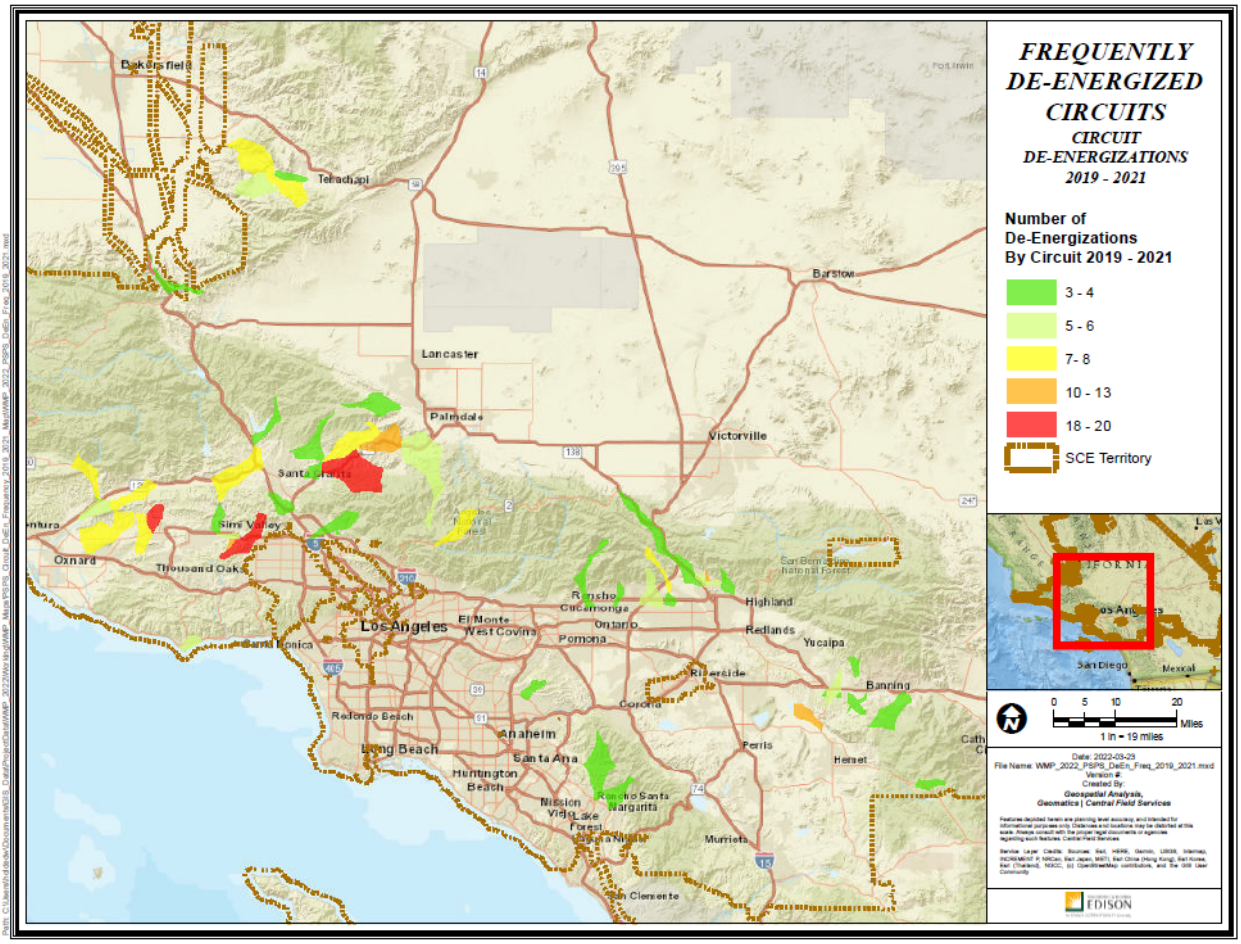
A8. Section 8.6 (Frequently De-energized Circuits):

In response to OEIS-SCE-22-003 Q2, SCE provided a map of the listed frequently de-energized circuits. The questions and response are provided below.

Question 02:

Section 8.6 – De-energization Map: a. In Section 8.6 SCE provided a list of frequently de-energized circuits. However, to meet the statutory requirements utilities are also required to provide a map showing the listed frequently de-energized circuits. i. If SCE included a map of frequently de-energized circuits, please indicate where that map can be found in the 2022 WMP update submission (or elsewhere). ii. If SCE did not include a map of frequently de-energized circuits in the 2022 WMP update submission, please provide that map.

SCE Response:
The map entitled "WMP_2022_PSPS_DeEn_Freq_2019_2021_20220323" reflects the location of the frequently de-energized circuits SCE listed in the WMP (shown below).



B. Corrections to Typographical Errors

B1. Executive Summary

SCE has discovered a typographical error in the Executive Summary related to count of RSEs. On page 8, under the 'Resource Allocation Methodology: Risk Analyses Along with Operational Considerations Helps us Productively Direct Our Resources' heading, SCE states "In 2022, SCE expanded the number of mitigation activities for which RSEs were calculated, from 23 in 2021 to 38 in 2022, an increase of approximately 65%."

The statement should have stated, *"In 2022, SCE expanded the number of mitigation activities for which RSEs were calculated, from 23 in 2021 to **39** in 2022, an increase of approximately **70%**."*

B2. Chapter 3 (WMP Expenditures)

SCE has discovered some typographical errors in Chapter 3, Table 3-1 'Summary of WMP Expenditures – Total (Nominal, $000)' and Table 3.2 'Summary of WMP Expenditures by Category (Nominal, $000).' These financial tables are corrected from the initial filing and are provided in the tables below.

Table 0-1
Summary of WMP Expenditures[4] - Total (Nominal, $000)

	Capital	O&M	Total
2020 WMP Planned	$808.5	$499.8	$1,308.3
2020 Actual	$769.7	$587.1	$1,356.8
Difference	$38.7	($87.3)	($48.6)
2021 Planned	$1,109.4	$596.3	$1,705.7
2021 Actual	$1,106.2	$552.6	$1,658.8
Difference	$3.1	$43.8	$46.9
2022 Planned	$978.7	$641.6	$1,620.4
2020-22 Planned (w/2020 and 2021 actuals)	**$2,854.7**	**$1,781.3**	**$4,636.0**

The financial corrections to Table 3-1 are shown below in red:

[4] The summary of WMP Expenditures reflects direct capital and O&M costs, excluding corporate overheads and financing costs, for wildfire activities which correspond to the HFTD spend as shown in Table 12 (see Appendix9.9)

Revised Table 3-1

Summary of WMP Expenditures[5] - Total (Nominal, $000)

	Capital	O&M	Total
2020 WMP Planned	$808.5	$499.8	$1,308.3
2020 Actual	**$769.8**	$587.1	**$1,356.9**
Difference	**$38.6**	($87.3)	($48.6)
2021 Planned	$1,109.4	$596.3	$1,705.7
2021 Actual	$1,106.2	**$536.7**	**$1,643.0**
Difference	$3.1	**$59.6**	**$62.7**
2022 Planned	**$978.8**	**$640.4**	**$1,619.3**
2020-22 Planned (w/2020 and 2021 actuals)	**$2,854.9**	**$1,764.2**	**$4,619.2**

[5] The summary of WMP Expenditures reflects direct capital and O&M costs, excluding corporate overheads and financing costs, for wildfire activities which correspond to the HFTD spend as shown in Table 12 (see Appendix 9.9). Table 3-2 incorporates Risk Assessment and Mapping spend into Situational Awareness.

Michael A. Backstrom
VP Regulatory Affairs
michael.backstrom@sce.com

Table 3-2
Summary of WMP Expenditures[6] by Category - Total (Nominal, $000)

Spend in thousands $ of USD

WMP Category	2020							2021							2022		(w/2020 and 2021	
	Capital Planned	Capital Actual	Capital Δ	O&M Planned	O&M Actual	O&M Δ	2020 Total Actual	Capital Planned	Capital Actual	Capital Δ	O&M Planned	O&M Actual	O&M Δ	2021 Total Actual	Capital Planned	O&M Planned	Capital	O&M
Situational Awareness	$13.2	$11.9	$1.4	$10.4	$7.8	$2.6	$19.7	$21.4	$17.5	$3.9	$16.1	$10.9	$5.188	$28.4	$4.0	$13.7	$33.3	$32.4
Grid Design and System Hardening	$549.1	$581.4	($32.3)	$10.4	$4.0	$6.4	$585.4	$830.4	$933.8	($103.4)	$5.6	$1.7	$3.922	$935.5	$824.8	$12.2	$2,340.0	$17.9
Asset Management and Inspections	$244.1	$149.9	$94.3	$268.1	$173.9	$94.1	$323.8	$216.1	$114.4	$101.7	$136.5	$117.0	$19.456	$231.5	$99.5	$107.4	$363.8	$398.4
Vegetation Management and Inspections	-	$16.1	($16.1)	$137.2	$334.4	($197.2)	$350.6	$9.9	$11.0	($1.1)	$343.2	$335.2	$7.985	$346.2	$6.8	$402.7	$33.9	$1,072.4
Grid Operations and Protocols	$2.0	$6.8	($4.8)	$56.7	$20.1	$36.6	$27.0	$7.2	$14.5	($7.3)	$60.9	$52.2	$8.695	$66.7	$20.2	$53.8	$41.6	$126.1
Data Governance	-	$1.8	($1.8)	-	-	-	$1.8	$15.7	$9.3	$6.4	$1.1	-	$1.052	$9.3	$16.5	$4.1	$27.6	$4.1
Resource Allocation Methodology	-	-	-	-	$32.9	($32.9)	$32.9	-	-	-	$7.9	$11.4	($3.446)	$11.4	-	$10.4	-	$54.6
Emergency Planning and Preparedness	-	-	-	$12.2	$5.9	$6.3	$5.9	$0.2	-	$0.2	$1.7	$3.9	($2.184)	$3.9	-	$9.1	-	$19.0
Stakeholder Cooperation and Community Engagement	-	-	-	-	$7.8	($7.8)	$7.8	-	-	-	$23.4	$20.3	$3.099	$20.3	-	$28.2	-	$56.3
New Innovations and Technologies	-	$1.9	($1.9)	$4.7	$0.2	$4.6	$2.0	$8.4	$5.7	$2.7	-	$0.0	($0.002)	$5.7	$7.0	-	$14.5	$0.2
Total	**$808.5**	**$769.7**	**$38.7**	**$499.8**	**$587.09**	**($87.3)**	**$1,356.8**	**$1,109.4**	**$1,106.2**	**$3.1**	**$596.3**	**$552.6**	**$43.8**	**$1,658.8**	**$978.7**	**$641.6**	**$2,854.7**	**$1,781.3**

[6] The summary of WMP Expenditures reflects direct capital and O&M costs, excluding corporate overheads and financing costs, for wildfire activities which correspond to the HFTD spend as shown in Table 12 (see Appendix 9.9). Table 3-2 incorporates Risk Assessment and Mapping spend into Situational Awareness.

The financial corrections to Table 3-2 are shown below in red:

Revised Table 3-2
Summary of WMP Expenditures[7] by Category - Total (Nominal, $000)

Spend in thousands $ of USD

WMP Category	2020							2021							2022		2020-2022 Planned	
	Capital Planned	Capital Actual	Capital Δ	O&M Planned	O&M Actual	O&M Δ	2020 Total Actual	Capital Planned	Capital Actual	Capital Δ	O&M Planned	O&M Actual	O&M Δ	2021 Total Actual	Capital Planned	O&M Planned	Capital	O&M
Situational Awareness	$13.2	$12.0	$1.3	$10.4	$7.8	$2.6	$19.8	$21.4	$17.5	$3.9	$16.1	$10.9	$5.188	$28.4	$4.0	$13.7	$33.4	$32.4
Grid Design and System Hardening	$549.1	$583.2	($34.1)	$10.4	$4.0	$6.4	$587.2	$830.4	$936.5	($106.1)	$5.6	$1.7	$3.922	$938.2	$825.0	$11.0	$2,344.7	$16.6
Asset Management and Inspections	$244.1	$149.9	$94.3	$268.1	$173.9	$94.1	$323.8	$216.1	$114.4	$101.7	$136.5	$115.2	$21.338	$229.6	$99.5	$107.4	$363.8	$396.5
Vegetation Management and Inspections	-	$16.1	($16.1)	$137.2	$334.4	($197.2)	$350.6	$9.9	$11.0	($1.1)	$343.2	$319.3	$23.861	$330.3	$6.8	$402.7	$33.9	$1,056.5
Grid Operations and Protocols	$2.0	$6.8	($4.8)	$56.7	$20.1	$36.6	$27.0	$7.2	$14.5	($7.3)	$60.9	$45.0	$15.904	$59.5	$20.2	$46.4	$41.6	$111.5
Data Governance	-	$1.8	($1.8)	-	-	-	$1.8	$15.7	$9.3	$6.4	$1.1	-	$1.052	$9.3	$16.5	$4.1	$27.6	$4.1
Resource Allocation Methodology	-	-	-	-	$32.9	($32.9)	$32.9	-	-	-	$7.9	$13.2	($5.329)	$13.2	-	$10.4	-	$56.5
Emergency Planning and Preparedness	-	-	-	$12.2	$5.9	$6.3	$5.9	$0.2	-	$0.2	$1.7	$3.9	($2.184)	$3.9	-	$9.1	-	$19.0
Stakeholder Cooperation and Community	-	-	-	-	$7.8	($7.8)	$7.8	-	-	-	$23.4	$27.5	($4.147)	$27.5	-	$35.6	-	$70.9
New Innovations and Technologies	-	-	-	$4.7	$0.2	$4.6	$0.2	$8.4	$3.0	$5.4	-	$0.0	($0.002)	$3.0	$7.0	-	$10.0	$0.2
Total	**$808.5**	**$769.8**	**$38.6**	**$499.8**	**$587.1**	**($87.3)**	**$1,356.9**	**$1,109.4**	**$1,106.2**	**$3.1**	**$596.3**	**$536.7**	**$59.6**	**$1,643.0**	**$978.8**	**$640.4**	**$2,854.9**	**$1,764.2**

[7] The summary of WMP Expenditures reflects direct capital and O&M costs, excluding corporate overheads and financing costs, for wildfire activities which correspond to the HFTD spend as shown in Table 12 (see Appendix 9.9). Table 3-2 incorporates Risk Assessment and Mapping spend into Situational Awareness

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Michael A. Backstrom
VP Regulatory Policy
michael.backstrom@sce.com

B3. Section 4.3.7 (MARS formulas)

SCE has discovered typographical and formatting errors in the MARS 2.0 Consequence Attributes, Vulnerable / At-Risk Communities (AFN and NCRI) formulas in Section 4.3.7.

On page 66, under the MARS 2.0 Consequence Attributes header, SCE listed the MARS 2.0 Consequence Attributes formula as "

$$Safety\ Index = 1.0 * \#\ of\ Fatalities + 14 * (\#\ of\ Serious\ Injuries) * AFNMultiplier * NRCIMultiplier$$

The MARS 2.0 Consequence Attributes formula should have been stated as:

$$Safety\ Index = 1.0 * \#\ of\ Fatalities + 1/4 * (\#\ of\ Serious\ Injuries) * AFNMultiplier * NRCIMultiplier$$

On page 67, under the MARS 2.0 Consequence Attributes header, the AFN and the NRCI formulas were stated as:

$$AFNMultiplier = 1 + AFN\_ScorecircuitAFN\_ScoreMAX$$

$$NCRCIMultiplier = 1 + NRCI\_ScorecircuitNRCI\_ScoreMAX$$

The AFN and NRCI formulas should have been stated as:

$$AFN_{Multiplier} = 1 + \frac{AFN\_Score_{circuit}}{AFN\_Score_{MAX}}$$

$$NRCI_{Multiplier} = 1 + \frac{NRCI\_Score_{circuit}}{NRCI\_Score_{MAX}}$$

B4. Section 4.3.8 (RSE count)

SCE has discovered a typographical error in the Section 4.3.8 related to count of RSEs. On page 69, under the 'Summary of RSE Results' heading, SCE states "SCE has also incorporated 22 additional activities into its RSE portfolio for this 2022 WMP Update,…"

The statement should have stated, *"SCE has also incorporated **21** additional activities into its RSE portfolio for this 2022 WMP Update,…"*

B5. Section 4.3.8 (RSE scores)

SCE corrected RSE values as reported in Section 4.3.8. in the Summary Table of RSE Results (Table SCE 4-11) for the following WMP Activities:

- Undergrounding (SH-2)
- Transmission Open Phase Detection (SH-8)
- Expanded Pole Brushing (VM-2)

Category	ID	Initiative / Activity	RSE Calculated (Rationale)	RSE[8]	Quantified Risk Reduction Benefits
Grid Design & System Hardening	SH-2	Undergrounding Overhead Conductor	Yes	1,421	Reduces ignition risk and PSPS risk
	SH-8	Transmission Open Phase Detection	Yes	532	Reduces ignition risk
Vegetation Management	VM-2	Expanded Pole Brushing	Yes	6,166	Reduces ignition risk

The RSE corrections are as follows:

Category	ID	Initiative / Activity	RSE Calculated (Rationale)	RSE[9]	Quantified Risk Reduction Benefits
Grid Design & System Hardening	SH-2	Undergrounding Overhead Conductor	Yes	***1,182***	Reduces ignition risk and PSPS risk
	SH-8	Transmission Open Phase Detection	Yes	***<1***	Reduces ignition risk
Vegetation Management	VM-2	Expanded Pole Brushing	Yes	***2,925***	Reduces ignition risk

On page 337 in Section 7.3.3.17.1 SCE made the following statement related to the RSE for Transmission Open Phase Detection (SH-8), “Though the RSE was relatively low, SCE finds value in pursuing TOPD to mitigate the potentially high consequence of energized down wire incidents on the transmission system.”

With the revised RSE, the statement has been updated to say, “Though the RSE was **less than one**, SCE finds value in pursuing TOPD to mitigate the potentially high consequence of energized down wire incidents on the transmission system.”

[8] RSEs provided are for total activity, please see Table 12 in Appendix 9.9 for activity RSEs by tier.
[9] RSEs provided are for total activity, please see Table 12 in Appendix 9.9 for activity RSEs by tier.

SCE also updated the RSE scores for these 3 activities in an updated Table 12, found at the bottom of this submission.

B6. Section 7.3.3.9 (Count of RAR/RCS devices)

SCE has discovered a typographical error in the Section 7.3.3.9 related to count of RAR/RCS devices installed in 2021. On page 315, under 'Progress on initiative' section, SCE stated "In 2021, SCE installed 23 RAR/RCS devices on 15 circuits of the FICs as part of SCE's expedited grid hardening effort explained in the PSPS Action Plan."

The statement should have stated *"In 2021, SCE installed **18** RAR/RCS devices on **11** circuits of the FICs as part of SCE's expedited grid hardening effort explained in the PSPS Action Plan"*.

Additionally, SCE corrected the count of RAR/RCS devices for 2021 in the updated Table 5-3.1 and Data Table 12, found at the bottom of this errata submission.

B7. Section 7.3.4.9.1 (Count of Distribution Aerial Inspections)

SCE has discovered a typographical error in the Section 7.3.4.9.1 related to count of structures inspected by Distribution Aerial Inspections in 2021. On page 368, under 'Progress on initiative' section, SCE stated 'Aerial inspections were completed on a total of 180,264 structures'.

The statement should have stated *"Aerial inspections were completed on a total of **180,252** structures"*.

Similarly, on Table SCE 7-24, SCE presented the Aerial Inspection structure count for 2021:

Year	Plan	Recorded	Comments
2021	Between 163,000 and 198,000	180,264	Exceeded WMP goal of completing approximately 163,000 inspections. The completed inspections count of 180,264 includes AOCs (30,336) in HFRA.

The Aerial Inspection structure count for 2021 should be the following:

Year	Plan	Recorded	Comments
2021	Between 163,000 and 198,000	***180,252***	Exceeded WMP goal of completing approximately 163,000 inspections. The completed inspections count of ***180,252*** includes AOCs (30,336) in HFRA.

Additionally, SCE corrected the count of Distribution Aerial Inspection for 2021 in the updated Table 5-3.1 and Data Table 12, found at the bottom of this errata submission.

B8. Section 7.3.4.11.1 (Count of Transmission Aerial Inspections)

SCE has discovered a typographical error in the Section 7.3.4.11.1 related to count of structures inspected by Transmission Aerial Inspections in 2021. On page 380, under 'Progress on initiative' section, SCE stated "In 2021, ground inspections were completed on 20,815 structures which includes HFRI inspections, AOC inspections, and compliance due inspections in HFRA. Aerial inspections were completed on a total of 20,799 structures".

The statement should have stated *"*In 2021, ground inspections were completed on 20,815 structures which includes HFRI inspections, AOC inspections, and compliance due inspections in HFRA. Aerial inspections were completed on a total of **20,790** structures'*"*.

Similarly, on Table SCE 7-26, SCE presented the Transmission Aerial Inspection structure count for 2021:

Year	Plan	Recorded	Comments
2021	Between 16,800 and 22,800	20,799	Exceeded WMP goal of completing approximately 16,800 inspections. The completed inspections count of 20,799 includes AOCs (3,111) in HFRA.

The Aerial Inspection structure count for 2021 should be the following:

Year	Plan	Recorded	Comments
2021	Between 16,800 and 22,800	**20,790**	Exceeded WMP goal of completing approximately 16,800 inspections. The completed inspections count of **20,790** includes AOCs (3,111) in HFRA.

Additionally, SCE corrected the count of Transmission Aerial Inspections for 2021 in the updated Table 5-3.1 and Data Table 12, found at the bottom of this errata submission.

B9. Section 7.3.5.16.1 (Count of Hazard Tree Mitigation Program (HTMP) Assessments)

SCE has discovered a typographical error in Section 7.3.5.16.1 related to count of HTMP assessments performed in 2021. On page 426, under 'Progress on initiative' section, SCE stated "In 2021, SCE completed approximately 131,000 individual HTMP tree assessments".

The statement should have stated “In 2021, SCE completed approximately **131,300** individual HTMP tree assessments”.

Additionally, SCE corrected the count of HTMP assessments for 2021 in the updated Table 5-3.1 and Data Table 12, found at the bottom of this errata submission.

B10. Section 5.3 (Reference to PUC code)

SCE incorrectly referenced “Pub. Util. Code Section 8386.3l(5)” related to the following three Vegetation Management activities:

- Vegetation Inspections Audited Annually
- Poles brushed per PRC 4292
- LiDAR Vegetation Inspections – Distribution

The correct PUC code should be *“Pub. Util. Code Section **8386.3(c)(5)**”.*

SCE corrected the PUC code in the updated Table 5.3-1, found at the bottom of this errata submission.

B11. Section 5.3 (Increased Customer Participation for Rebate Programs)

SCE has discovered a typographical error in Table 5.3-1 related to participation in 2021 in various rebate programs in PSPS-2. SCE stated “Res Battery Station Rebate & Well Water Generator Rebate: Increased customer participation by 93%.”

The correct statement should have stated, ““Res Battery Station Rebate & Well Water Generator Rebate: Increased customer participation by **131**%.”

SCE corrected the customer participation in the updated Table 5.3-1, found at the bottom of this errata submission.

B12. Section 5.3 (Corrected Omitted language from 2019 DEP-2 goal)

SCE has discovered omitted language in Table 5.3-1 for the 2019 target for SCE Emergency Responder Training (DEP-1). SCE stated the 2019 target as “1) Wildfire response training for new or existing responders; 2) Conduct internal IMT Training around wildfire response and de”

The correct target for 2019 should have stated, “1) Wildfire response training for new or existing responders; 2) Conduct internal IMT Training around wildfire response and de-**energization protocols**”

SCE corrected the 2019 goal in the updated Table 5.3-1, found at the bottom of this errata submission.

B13. Section 7.2.C (Count of QC inspections)

SCE has discovered a typographical error in the Section 7.2.C related to count of structures planned for QC inspections in 2022. On page 253, under the ‘Monitor and audit the effectiveness of inspections, including inspections performed by contractors, carried out under the plan and other applicable statutes and commission rules’ heading, SCE states “For 2022, C&Q currently plans to perform QC inspections of completed inspections for approximately 5,000 transmission, distribution, and generation structures in HFRA.

The statement should have stated, *“For 2022, C&Q currently plans to perform QC inspections of completed inspections for approximately **3,000** transmission, distribution, and generation structures in HFRA.”*

B14. Section 7.3.3.16.1 (Mitigation Effectiveness)

SCE has discovered an erroneous statement in Section 7.3.3.16.1 related to mitigation effectiveness. On page 336, SCE states “The 2022 scoping analysis reviewed circuit segments that were not in-flight or scoped for covered conductors. SCE arrived at the 2022 scope by leveraging SCE’s WRRM-produced FLOC level risk, broken down by sub-driver risks, and applied SCE’s established mitigation effectiveness values for covered conductor and undergrounding. Applying the mitigation effectiveness of covered conductor and undergrounding to each unique FLOC allowed SCE to generate “mitigated risk” values for both options for each circuit segment. Each circuit segment was then assessed to determine the highest delta of mitigated risk between both mitigation options of undergrounding versus covered conductor.”

The statement should have stated, “The 2022 scoping analysis reviewed circuit**s** ~~segments~~ that were not in-flight or scoped for covered conductors. SCE arrived at the 2022 scope by leveraging SCE’s WRRM-produced FLOC level risk, broken down by sub-driver risks, and applied SCE’s established mitigation effectiveness values for covered conductor and undergrounding. Applying the mitigation effectiveness of covered conductor and undergrounding to each unique FLOC allowed SCE to generate “mitigated risk” values for both options for each circuit ~~segment~~. Each circuit ~~segment~~

was then assessed to determine the highest delta of mitigated risk between both mitigation options of undergrounding versus covered conductor."

C. Corrections to Appendix 9.9 Tables 1-12

The changes to the data tables are summarized in Table 1 above.

Revised Tables 3, 8, 11 and 12 are included herewith. Revisions are entered in red text.

CONCLUSION

SCE appreciates the opportunity to submit its First Supplement to the 2022 WMP Update.

Sincerely,

//s//
Michael A. Backstrom
VP Regulatory Affairs
Southern California Edison

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[61])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
Weather Stations (SA-1)	Install at least 315 units in HFRA	352	Install 375 Weather Stations	593	SCE expects to install 375 weather stations but will attempt to install as many as 475	Installed 406 weather stations in 2021, for a cumulative total of 1,463 installations since program inception (as of 12/31/2021).	Install 150 weather stations in SCE's HFRA. SCE will strive to install up to 175 weather stations in SCE's HFRA, subject to resource and execution constraints.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility (Timely resolution of network stability and satellite / communication issues) / Lead Time to Deploy, Cost to Customers, Enabling Activity, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations where weather stations installed	Weather Stations	Y	
Weather and Fuels Modeling (SA-3)	High Performing Computer Weather Modeling System Procure and install High Performance Computing Cluster weather and fuels modeling system	N/A	Complete installation of second HPCC	Developed methodology for end use case	Install two additional High Performance Computing Clusters (HPCCs) to facilitate the installation and operationalization of the Next Generation Weather Modeling System allowing for more precise, higher resolution output	Installed two HPCCs, extended PSPS forecast from 5 to 7 days, and incorporated European forecasting model to add redundancy and accuracy to the NextGen weather modeling.	Equip 400 weather station locations with machine learning capabilities. SCE will strive to equip up to 500 weather station locations with machine learning capabilities, subject to resource and execution constraints.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of weather stations equipped with machine learning capabilities	Weather Stations	Y	
Fire Science (SA-8)	N/A	N/A	Implement enhanced forecasting capability and improved fuel modeling	Created 40-year historical data set	Evaluate current wildfire events in context of 40-year history of wildfires.	SCE did not meet target. Vendor developed a climatology output containing a 40-year history of wildfires for multiple variables but unable to complete because vendor work was reprioritized to support other emergent work.	Calibrate FPI 2.0 and evaluate its performance over the 2022 fire season. Improve fire spread modeling applications (i.e., FireSim and FireCast) to include 1) fire suppression and 2) buildings destroyed by fire.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Enabling Activity (for PSPS decision-making), Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Results of the calibration/evaluation and narrative demonstrating how additional data fields improved the model	N/A	Y	
Distribution Fault Anticipation (DFA) (SA-9)	N/A	Procured 60 DFA units and initiated installations	N/A	Completed installations and evaluated the 60 DFA units and identified additional 150 circuits for deployment in 2021.	Complete installation of 120 DFA units on circuits in SCE's HFRA and continue evaluation of DFA technology which may result in SCE installing up to 150 units	Completed installation of 130 DFA units on circuits in SCE's HFRA	SCE will evaluate the performance of installed fault anticipation technology and develop recommendations for future use by year-end 2022.	N/A	The DFA units installed will have generated sufficient data by year-end 2022 to be able to perform an evaluation of the scalability of DFA for future years	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Evidence that supports evaluation of performance of installed distribution fault anticipated technology and potential recommendation for future use	N/A	Y	
High Definition (HD) Cameras (SA-10)	Install at least 62 cameras on 31 towers	Installed 91 cameras	N/A	Installed 5 cameras	N/A	N/A	Install 10 HD Cameras. SCE will strive to install up 20 HD Cameras, subject to resource and execution constraints.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Enabling Activity, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations where the high-definition cameras are installed	HD Cameras	Y	
Covered Conductor (SH-1)	Install at least 96 circuit miles of covered conductor in HFRA	372	Install 700 circuit miles of covered conductor in HFRA. 700 circuit miles is SCE's program target. SCE will strive to complete 1,000 circuit miles subject to resource constraints and other execution risks	982	SCE expects to install 1,000 circuit miles of covered conductor in SCE's HFRA but will attempt to install as many as 1,400 circuit miles of covered conductor in SCE's HFRA, subject to resources constraints and other execution risks	1,503	Install 1,100 circuit miles of covered conductor in SCE's HFRA. SCE will strive to install up to as many as 1,250 circuit miles of covered conductor in SCE's HFRA, subject to resource constraints and other execution risks.	50% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy (e.g., coordination of planned outages and planning around any construction challenges), Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of covered conductor circuit miles installed	Circuit miles covered	Y	Approximately 50% of SCE's 2022 WCCP scope will target the remaining top 25% riskiest circuit segments. The top 25% riskiest circuit segments relate to the circuit segment risk rankings from SCE's WRRM, as described in Section 4.3. Please see Section 7.1.2.1 for a description of SCE's Integrated Grid Hardening strategy and potential impacts on potential scope of covered conductor.
Undergrounding Overhead Conductor (SH-2)	Conduct evaluation of undergrounding for HFRA	Completed evaluation	Refine evaluation methodology for targeted undergrounding as a wildfire mitigation activity	Refined targeted undergrounding methodology and began scoping for 2021	Install 4 miles of undergrounded HFRA circuits. SCE will attempt to install 6 miles of undergrounded HFRA circuits, subject to resource constraints and other execution risks, such as permitting, environmental or coordinating with other utilities.	Installed nearly 6 miles of undergrounding in HFRA	Install 11 circuit miles of targeted undergrounding in SCE's HFRA. SCE will strive to install up to 13 miles of targeted undergrounding in SCE's HFRA, subject to resource constraints and other execution risks.	100% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy (e.g., coordination of planned outages and planning around any construction challenges), Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of underground circuit miles installed	Circuit miles undergrounded	Y	100% of SCE's 2022 scope for Undergrounding Overhead Conductor will target the top 25% riskiest circuits. The top 25% riskiest circuits relate to the risk rankings from SCE's WRRM, as described in Section 4.3 Going forward, SCE will scope new Undergrounding work pursuant to the new Integrated Grid Hardening Strategy discussed in Section 7.1.2.1.
Branch Line Protection Strategy (SH-4)	Install at least 7,500 CLF in HFRA locations	7,765	Install/replace fuses at 3,025 locations	3,025	Install or replace fusing at 330 fuse installation locations. SCE will strive to install or replace fusing at 421 fuse locations, subject to resource constraints and other execution risks	352	Install or replace fusing at 350 fuse locations that serve HFRA circuitry. SCE will strive to install or replace fusing at up to 483 locations that serve HFRA circuitry, subject to resource constraints and other execution risks.	25% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of where fusing was installed/replaced	Fuse locations	Y	Approximately 25% of SCE's 2022 scope for SH-4 will target the remaining top 25% riskiest circuit segments. ~~By the end of 2022, 100% of the currently identified remaining top 25% riskiest segments for SH-4 will be addressed.~~ The top 25% riskiest circuit segments relate to the program circuit segment risk rankings from SCE's WRRM, as described in Section 4.3.
Remote Controlled Automatic Reclosers Settings Update (SH-5)	Install at least 50 new RAR	71	Install 45 RARs/RCSs	49	Based on SH-7 analysis, SCE is proceeding with preliminary scope per the Action Plan	18	Install 15 sectionalizing devices such as RARs/RCSs driven by the results of evaluations / assessments conducted under SH-6 and SH-7. SCE will strive to install up to 31 sectionalizing devices such as RARs/RCSs driven by the results of evaluations / assessments conducted under SH-6 and SH-7, subject to resource constraints and other execution risks.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations where sectionalized devices were installed	RAR/RCSs installed	Y	Target% / Top Risk% not provided as this activity is largely informed by PSPS reduction considerations.
Circuit Breaker Relay Hardware for Fast Curve (SH-6)	1) Develop engineering plan to upgrade remaining CB relays and update settings 2) Conduct CB upgrades and setting updates according to plan	Updated Fast Curve Operating Settings for 156 RAR installations and developed plans for CB Relay updates	Replace/upgrade 55 relay units in HFRA. SCE will strive to replace up to 110 relay units in HFRA. These targets are subject to resource constraints and other execution risks	109	Replace/upgrade 60 relay units in HFRA SCE will strive to replace/upgrade 86 relay units in HFRA, subject to resource constraints and other execution risks	FC Settings on 95 relays	Replace/upgrade 104 relay units in SCE's HFRA. SCE will strive to replace/ upgrade up to 125 relay units in SCE's HFRA, subject to resource constraints and other execution risks.	33% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	List of locations where relay units were installed or replaced	FC settings updated / CB relays	Y	Approximately 33% of SCE's 2022 SH-6 scope will target the remaining top 25% riskiest circuits. By the end of 2022, 76% of the remaining top 25% riskiest circuits will be addressed. The top 25% riskiest circuits relate to the program circuit risk rankings from SCE's WRRM, as described in Section 4.3. It should be noted that, as described in Section 7.3.3.2, SH-6 is not prioritized based on risk; rather, SCE primarily factors in construction and scheduling feasibility.

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[61])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
PSPS-Driven Grid Hardening Work (SH-7)	N/A	N/A	Review 50% of all distribution circuits within HFRA to determine if modifications may improve sectionalizing capability within HFRA	Reviewed 50% of all distribution circuits within HFRA to determine if modifications may improve sectionalizing capability within HFRA	SCE will develop a methodology to project probability of PSPS de-energization and impact. Utilizing this methodology, SCE will adopt a more targeted approach by evaluating highly impacted circuits from the remaining 50% circuits in HFRA.	Completed evaluation 140 HFRA circuits comprised of 72 FICS, an additional 62 circuits previously impacted by PSPS in 2019 to 2020, and an additional six circuits with no previous PSPS outages but identified as having a POD of one event every two years.	Evaluate approximately 70 highly impacted circuits including 2021 PSPS events to determine additional deployment of PSPS mitigations.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Enabling Activity, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of Distribution circuits evaluated including mitigation recommendation	Circuits analyzed based on number of PSPS events and CMI	Y	Target% / Top Risk% not provided as this activity evaluates opportunities to reduce PSPS impacts, and the actual mitigation work resulting from this evaluation is performed through other WMP activities.
Transmission Open Phase Detection (SH-8)	N/A	1 pilot transmission circuit completed, not part of the 2019 WMP	Continue deployment of transmission open phase detection on six additional transmission/sub- transmission circuits	6	Install transmission open phase detection devices on 10 transmission circuits	10	Deploy open phase logic on five transmission lines. SCE will strive to deploy open phase logic on up to 11 transmission lines, subject to resource constraints and other execution risks.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations with deployed open phase logic	Transmission circuits with open phase detection devices	Y	Target% / Top Risk% not provided as this activity is not risk prioritized and based primarily on operational considerations.
Tree Attachment Remediation (SH-10)	N/A	101	Remediate 325 tree attachments. SCE will strive to complete 481 tree attachment remediations subject to resource constraints and other execution risks	405	Remediate 500 tree attachments SCE will strive to complete over 600 tree attachment remediations, subject to resource constraints and other execution risks	538	Remediate 500 tree attachments in SCE's HFRA. SCE will strive to complete up to 700 tree attachment remediations in SCE's HFRA, subject to resource constraints and other execution risks.	33% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy (e.g., coordination of planned outages and planning around any construction challenges), Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of remediated tree attachments	Tree attachment remediations	Y	Approximately 33% of SCE's 2022 Tree Attachment scope will target the remaining top 25% riskiest circuits. By the end of 2022, 86% of the remaining top 25% riskiest circuits for Tree Attachments will be addressed. The top 25% riskiest circuits relate to the program circuit risk rankings from SCE's WRRM, as described in Section 4.3.
Legacy Facilities (SH-11)	N/A	N/A	Evaluate risk, scope, and alternatives for identified circuits; evaluation of additional system hardening mitigation for wildlife fault protection and grounding /lightning arresters	100% of milestones achieved	Hydro Control Circuits – Perform evaluation on five circuits for possible system hardening improvements Low Voltage Site Hardening – Create two project plans based on 2020 engineering assessments Grounding Studies/Lightning Arrestor Assessments: Complete 12 additional assessments	Completed five Hydro Control Circuits assessments, Completed two Low Voltage Site Hardening project plans based on 2020 engineering assessments, and Completed 12 additional Grounding Studies/Lightning Arrestor assessments.	Hydro Control Circuits: Based on 2021 assessments, perform grid hardening on three control circuits at three legacy facility sites Low Voltage Site Hardening: Based on 2021 assessment, perform one grid hardening project at a legacy facility site Grounding Studies/Lightning Arrestor Assessments and Remediations: Based on 2021 assessments perform four remediation projects at legacy facility sites. Additionally, complete 13 assessments.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Hydro Control Circuits and Low Voltage Site Hardening: Listing of locations of grid hardening work performed Grounding Studies/Lightning Arrestor Assessments and Remediations: Listing of locations of the remediation work performed and a summary of the results of the assessments	Hydro Control Circuits: Legacy Facility Site Low Voltage Site Hardening: Legacy Facility Site Grounding Studies/Lightning Arrestor Assessments: Legacy Facility Site	Y	Target% / Top Risk% not provided as scope is largely informed by best practices and operational considerations.
Microgrid Assessment (SH-12)	N/A	N/A	N/A	Initial RFP executed	Perform internal assessment of vendor bid and location options. If assessment is favorable, SCE will issue engineering, procurement, construction (EPC) contract to a vendor that meets SCE's design requirements	Completed internal assessment of vendor bid and location options. Conditional Engineering-Procurement-Construction (EPC) contract is in place with contingency on finalization of land.	SCE will actively attempt to obtain approval of easement with the landowner of the microgrid site, and if approval is received, SCE will move forward with microgrid project. If an approval is not received by June 30, 2022, or rejected, SCE will start to pursue other microgrid opportunities.	N/A	Targets primarily driven by: Operational Feasibility / (Land acquired for requisite new DERs will be secured before June 2022), Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Site approval with an approved site design package or evidence of pursuit of other microgrid opportunities	Design Package	Y	Target% / Top Risk% not provided as this is a single location pilot that was community driven, not scoped by risk analysis.
C-Hooks (SH-13)	N/A	N/A	N/A	N/A	Replace C-Hooks on at least 40 structures in HFRA SCE will strive to replace all C-Hooks in HFRA, currently estimated between 50-60 structures	50	SCE will replace C-Hooks on 10 structures in SCE's HFRA and strive to replace up to 21 C-Hooks, subject to execution risks such as environmental clearance.	29% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility (e.g., environmental clearances to perform the work at each location are obtained) / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of replaced C-Hooks	Transmission structures with C-Hooks	Y	While C-Hooks replacements were not risk prioritized, approximately 29% of SCE's 2022 scope for C-Hooks will target the remaining top 25% riskiest structures. By the end of 2022, 100% of the remaining top 25% riskiest structures for C-Hooks will be addressed. The top 25% riskiest structures relate to the program structure risk rankings from SCE's WRRM, as described in Section 4.3
Long Span Initiative (LSI) (SH-14)	N/A	N/A	N/A	N/A	Complete all field assessments for locations and corresponding remediations. Remediate the highest risk locations, estimating that 300, and up to 600, locations will be remediated in 2021, subject to the completion timeline for inspections, resource constraints and other execution risks.	361	Remediate 1,400 spans in SCE's HFRA. SCE will strive to remediate up to 1,800 spans in SCE's HFRA, subject to resource constraints and other execution risks.	22% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of where LSI mitigations performed	Number of locations remediated	Y	Approximately 22% of SCE's 2022 scope for Long Span Initiative will target the remaining top 25% riskiest circuit segments. By the end of 2022, 80% of the remaining top 25% riskiest long spans will be addressed. The top 25% riskiest long spans relate to the program long span prioritization ranking using WRRM and number of wire clash issues as described in Section 7.3.3.12.
Vertical Switches (SH-15)	N/A	N/A	N/A	Performed inspections and internal analysis/ governance	Install 20 switches in HFRA SCE will strive to install 30 switches in HFRA	16	Install 15 vertical switches in SCE's HFRA. SCE will strive to install 25 vertical switches in SCE's HFRA.	21% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of installed vertical switches	Vertical switches	Y	Approximately 21% of SCE's 2022 scope for Vertical Switches will target the remaining top 25% riskiest structures. By the end of 2022, 71% of the remaining top 25% riskiest structures for Vertical Switches will be addressed. The top 25% riskiest structures relate to the program structure risk rankings from SCE's WRRM, as described in Section 4.3.
Vibration Damper Retrofit (SH-16)	N/A	N/A	N/A	N/A	N/A	N/A	Retrofit vibration dampers on 100 structures where covered conductor is already installed in SCE's HFRA. SCE will strive to retrofit vibration dampers on up to 115 structures where covered conductor is already installed in SCE's HFRA.	98% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy (e.g., coordination of planned outages and planning around any construction challenges), Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of Vibration Damper upgrades on FLOCs with covered conductor	Structures	Y	Approximately 98% of SCE's 2022 scope for Vibration Damper Retrofits will target the remaining top 25% riskiest circuit segments. The top 25% riskiest segments relate to the program's risk ranking using SCE's WRRM model with additional consideration for other factors as described in Section 7.3.3.3.3.

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[61])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
Rapid Earth Fault Current Limiter (REFCL) (SH-17)	N/A	N/A	N/A	N/A	N/A	N/A	SCE will produce a report summarizing performance and lessons learned from previous REFCL installations. SCE will also initiate engineering and material purchase for the ground fault neutralizers (GFNs) to be constructed in 2023 at Acton and Phelan Substations.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	1. REFCL installation performance summary and lessons learned report. 2. Initiate purchase process for in-scope substation GFN construction.	Performance Report; Engineering and Material Purchase Orders	Y	Target% / Top Risk% not provided as this activity is piloting various REFCL initiatives and evaluating performance in 2022. As discussed in Section 7.3.3.12.2. The pilot performances will inform plans for 2023 and beyond; for 2023, SCE will use the risk scoring from WRRM, in addition to space, costs, and other constraints, to locate future REFCL installations.
Distribution High Fire Risk-Informed (HFRI) Inspections and Remediations (IN-1.1)	1) Complete visual inspection of all distribution circuits in HFRA before 5/31 2) Remediate all conditions that create a fire risk in accordance with CPUC requirements	385,292 ground; 113,900 aerial	Inspect 165,000 structures in HFRA	199,050 ground; 168,017 aerial	Inspect between 163,000 and 198,000 structures in HFRA, via both ground and aerial inspections. This target includes HFRI inspections, compliance-due structures in HFRA and emergent risks during the fire season.	179,683 ground; ***180,252*** aerial	Inspect 150,000 structures in HFRA via both ground and aerial inspections. Subject to resource constraints and other factors, SCE will strive to inspect up to 180,000 structures in HFRA via both ground and aerial inspections. This target includes HFRI inspections, compliance due structures in HFRA and emergent risks identified during the fire season.	32% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of distribution ground and aerial inspections completed	Structures	Y	In 2022, approximately 32% of SCE's Distribution Overhead Inspections in HFRA will address the top 25% riskiest distribution structures. These inspections will address 100% of the top 25% riskiest structures. The top 25% riskiest structures relate to the structure risk rankings from SCE's WRRM, as described in Section 4.3
Transmission High Fire Risk-Informed (HFRI) Inspections and Remediations (IN-1.2)	1) Complete visual inspection of all transmission circuits in HFRA before 5/31 2) Remediate all conditions that create a fire risk in accordance with CPUC requirements	50,583 ground; 38,998 aerial	Inspect 22,500 structures in HFRA	35,561 ground; 31,381 aerial	Inspect between 16,800 and 22,800 structures in HFRA, via ground and aerial inspections. This target includes HFRI inspections, compliance-due, and other structures within the vicinity for operational efficiency purposes in HFRA and emergent risks during the fire season.	20,815 ground; **20,790** aerial	Inspect 16,000 structures in HFRA via both ground and aerial inspections. Subject to resource constraints and other factors, SCE will strive to inspect up to 19,000 structures in HFRA via both ground and aerial inspections. This target includes HFRI inspections, compliance due structures in HFRA and emergent risks identified during the fire season.	44% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of transmission ground and aerial inspections completed	Structures	Y	In 2022, approximately 44% of SCE's Transmission Overhead Inspections in HFRA will address the top 25% riskiest transmission structures. These inspections will address 100% of the top 25% riskiest structures. The top 25% riskiest structures relate to the structure risk rankings from SCE's WRRM, as described in Section 4.3.
Infrared Inspection of Energized Overhead Distribution Facilities and Equipment (IN-3)	1) Inspect 50% of overhead circuit lines in HFRA 2) Remediate conditions as required based on inspection results	4,962	Inspect 50% of distribution circuits in HFRA	5,900	Inspect approximately 50% of distribution circuits in HFRA	4,410	Inspect 4,408 distribution overhead circuit miles in HFRA	25% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of distribution overhead circuit miles inspected	Circuit miles	Y	Approximately 25% of SCE's 2022 scope for Infrared Inspections will target the remaining top 25% riskiest structures. These inspections performed over the two-year 2021-2022 inspection period will address 100% of the top 25% riskiest structures. The top 25% riskiest structures relate to the structure risk rankings from SCE's WRRM, as described in Section 4.3.
Infrared Inspection, Corona Scanning, and High Definition Imagery of Energized Overhead Transmission Facilities and Equipment (IN-4)	1) Complete IR, Corona, and HD image scanning of all overhead transmission lines in HFRA that are loaded to 40% of rated capacity or higher 2) Integrate remediation with EOI activities	6,700	Inspect 1,000 transmission circuit miles in HFRA	1,005	Inspect 1,000 transmission circuit miles on HFRA circuits	1,046	Inspect 1,000 transmission overhead circuit miles in HFRA	84% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of transmission overhead circuit miles inspected	Circuit miles	Y	Approximately 84% of SCE's 2022 scope for IN-4 will target the top 25% riskiest circuits. The top 25% riskiest circuits relate to the transmission circuit risk rankings from SCE's WRRM,, as described in Section 4.3.
Generation High Fire Risk-Informed Inspections and Remediations in HFRA (IN-5)	N/A	449	Perform inspection of 200 generation-related assets	268	Complete inspection of 181 generation-related assets in HFRA	232	Inspect 190 generation-related assets in HFRA	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of generation facilities inspected	Asset inspections	Y	Target% / Top Risk% not provided as inspections are performed on each asset every other year in HFRA Tier 2 and 3. As discussed in Section 7.3.4.10, SCE attempts to perform more inspections in Tier 3 in the first year of the two-year cycle.
Inspection and Maintenance Tools (IN-8)	N/A	N/A	N/A	N/A	•Transition Aerial and Transmission Ground inspection processes to a single digital platform with at least 75% of inspectors trained to use the tool by year end 2021. • Key AI/ML models leveraged by the Aerial inspection process; • Deploy scope mapping tool with GIS visualization to Distribution Planning and Engineering users • Deploy remediation mobile software and iPad devices for transmission and distribution.	T&D Aerial completed transition of inspection processes to a single digital platform and met target to train at least 75% of inspectors. Transmission Ground did not complete transition of inspection processes to a single digital platform and did not meet target to train at least 75% of inspectors. Key artificial intelligence/machine learning (AI/ML) models met target. Scope Mapping Tool (SMT) did not meet target to deploy tool to Distribution Planning and Engineering users. Remediation mobile software and iPad devices were deployed for Transmission however target was not met for Distribution users.	• Design capability for the legacy Distribution Ground inspection application in 2022 to transition to a single digital inspection platform in a future year • In support of remediation efforts, conduct assessment to identify enhancements for Field Crew application, and evaluate applicability of enhancements by year-end 2022	N/A	Targets primarily driven by: Operational Feasibility / Lead Time to Deploy, Cost to Customers, Enabling Activity, Resource Availability (e.g., Application development and user testing resource availability)	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Demo of single digital inspection platform and the results of the assessment to identify enhancements for Field Crew application	Capability Implemented	Y	Target% / Top Risk% not provided as this activity is a technology platform applicable across all HFRA.

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[6])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
Transmission Conductor & Splice Assessment (IN-9)	N/A	N/A	N/A	N/A	N/A	N/A	Will inspect 75 spans[2] with Line Vue, inspect 50 splices[3] with X-Ray and obtain 5 Conductor Samples[4]; SCE will strive to inspect up to 150 spans with Line Vue, inspect up to 70 splices with X-Ray, and obtain up to 15 Conductor Samples, subject to execution constraints.	99% / 25%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	1. Evidence supporting Line Vue and X-Ray inspections. 2. Evidence supporting Conductor Samples performed.	Spans/splices Inspections	Y	Approximately 99% of SCE's 2022 scope for Transmission Conductor & Splice will target the remaining top 25% riskiest structures. The top 25% riskiest structures relate to the program structure risk rankings from SCE's WRRM combined with an environmental multiplier, as described in Section 7.3.4.5.1.
Hazard Tree Management Program VM-1	1) Perform at least 125,000 tree-specific threat assessments in HFRA 2) Perform at least 7,500 risk-based tree removals or mitigations in HFRA	~130,000	Assess 75,000 trees for hazardous conditions and perform prescribed mitigations in accordance with program guidelines and schedules	~100,000	Assess between 150,000 and 200,000 trees for hazardous conditions and perform prescribed mitigations in accordance with program guidelines and schedules Updated forecast shared in SCE's Nov 1 change order to OEIS was 120K-130K.	~131,300	Inspect 330 circuits and assess any trees with strike potential along those circuits.	44% / 36%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability (based on staffing of ISA-assessors, density of the tree population, accessibility)	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	1. Listing of circuit inspections completed. 2. Listing of locations where tree assessments were performed.	Circuits inspected	Y	Approximately 44% of SCE's 2022 scope for HTMP will target the remaining top 36% riskiest circuits. The remaining top 36% riskiest circuits relate to rankings from SCE's Tree Risk Index, as described in Section 4.5.
Expanded Pole Brushing (VM-2)	1) Inspect and clear brush to 10 feet radial clearance at the base of the pole (at least 25,000) poles 2) Clear brush as necessary to achieve 10 feet of clearance	~160,000	Perform brush clearance of 200,000 poles. SCE will strive to perform brush clearance for 300,000 poles subject to resource constraints and other execution risks	~230,000	SCE plans to pole brush between 200,000 and 300,000 Distribution poles	~163,100	SCE will inspect and clear (where clearance is needed) 78,700 poles in HFRA, with the exception of poles for which there are customer access or environmental constraints. SCE will strive to inspect and clear (where clearance is needed) up to 170,000 distribution poles in HFRA. These poles are in addition to poles subject to PRC 4292.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of poles inspected, remediated, and attempted to inspect and remediate	Poles brushed	Y	As discussed in Section 7.3.4.5.1, Pole brushing is performed annually and is subject to availability of resources to perform the work; therefore, SCE considers operational efficiency as a major driver in prioritizing categories of poles to brush. As such, Target% / Top Risk% is not provided for this activity. The pole count in this goal is based in part on the number of poles included in identified AOCs in 2021. If the AOC boundaries change significantly in 2022, due to changed climate conditions or other factors used to determine AOC scope, SCE will make reasonable attempts to access, inspect and clear, where necessary, all environmentally approved poles within the defined/identified AOC boundaries for 2022, whether that pole count is lesser or greater than the anticipated 26,400.
Expanded Clearances for Legacy Facilities (VM-3)	N/A	N/A	Perform assessments of all identified facilities in HFRA. Establish enhanced buffers at 30% of identified facilities	61 sites treated	Treat 46 sites	62 sites treated	Perform expanded clearances at 32 legacy facility locations	66% /28%	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of facilities treated and mitigation performed	Sites treated	Y	Approximately 66% of SCE's 2022 scope for VM-3 will target the remaining top 28% riskiest legacy facilities. The remaining top 28% riskiest legacy facilities relate to the risk rankings from the program's prioritization method, as described in Section 7.3.5.5.3.
Dead and Dying Tree Removal (VM-4)	1) Perform all quarterly Dead and Dying Tree inspections. 2) Remove identified dead, dying, or diseased trees in accordance with SCE's vegetation management program	All planned assessments completed, ~13,500 removals identified	Perform Dead and Dying Tree annual inspection scope and complete prescribed mitigations in accordance with internal Dead and Dying Tree program guidelines	All planned assessments completed, ~9,000 removals identified	Perform Dead and Dying Tree annual inspections and perform prescribed mitigations in accordance with program guidelines and schedules	Assessments performed on 1,301 Circuits	Inspect 900 unique circuits and prescribe mitigation for dead and dying trees with strike potential along those circuits.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	1. Listing of circuit inspections completed. 2. Listing of tree assessments performed. 3. Listing of tree mitigations performed.	Circuits inspected	Y	Target% / Top Risk% not provided as this activity SCE patrols the entire HFRA areas several times a year as conditions warrant to identify and remove compromised trees.
Vegetation Management Work Management Tool (Arbora) (VM-6)	N/A	N/A	N/A	Implemented release 1 application functionality for pilot user group for Dead & Dying Tree Removal	Continue Work Management Tool (Arbora) agile development and releases in accordance with project plan – complete full rollout of Dead & Dying Tree Removal and Hazard Tree Mitigation, and conduct discovery and design architecture associated with Line Clearing	SCE did complete initial discovery and design architecture for the routine Line Clearing portion of this activity and deployed as planned. However, SCE had to re-design architecture for the Hazard Tree Management Program and Dead and Dying Tree Removal due to data volume limitations and inability to calculate and assess risk scores, requiring additional development time and moving timeline to 2022.	SCE will implement the following programs within the VM Work Management Tool, Arbora: (1) Hazardous Tree Program (HTP) (including: Dead & Dying Tree Removal and Hazard Tree Mitigation) and (2) Routine Line Clearing	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Enabling Activity, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	1. Documented program objectives and timeline. 2. Documentation supporting milestones.	N/A	Y	Target% / Top Risk% not provided as this activity is a technology platform applicable across all HFRA.
Detailed inspections and management practices for vegetation clearances around distribution electrical lines, and equipment	N/A	N/A	SCE inspected 470,000 trees adjacent to distribution lines	SCE inspected 470,000 trees adjacent to distribution lines	SCE inspected 600,000 trees adjacent to distribution lines	SCE inspected 600,000 trees adjacent to distribution lines	In its HFRA for 2022, SCE plans to inspect approximately 600,000 trees adjacent to distribution lines, based on current unique tree inventory count. Tree inventory is subject to fluctuations based on actual field conditions.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of tree inspections performed.	Trees Inspected	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
Detailed inspections and management practices for vegetation clearances around transmission infrastructure lines, and equipment	N/A	N/A	SCE inspected 180,000 trees adjacent to transmission lines	SCE inspected 180,000 trees adjacent to transmission lines	SCE inspected 190,000 trees adjacent to transmission lines	SCE inspected 190,000 trees adjacent to transmission lines	In its HFRA for 2022, SCE plans to inspect approximately 100,000 trees adjacent to transmission lines, based on current unique tree inventory count. Tree inventory is subject to fluctuations based on actual field conditions.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of tree inspections performed.	Trees Inspected	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[61])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
Emergency response vegetation management due to red flag warning or other urgent climate conditions	N/A	N/A	N/A	N/A	N/A	N/A	SCE will inspect and clear (where clearance is needed) approximately 26,400 poles in identified Areas of Concern (AOC), with the exception of poles for which there are customer access or environmental constraints. These poles are included in the count of the Expanded Pole Brushing (VM-2) goal.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of AOC poles inspected, remediated, and attempted to inspect and remediate	Poles brushed	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs The pole count in this goal is based on the number of poles included in identified AOCs in 2021. If the AOC boundaries change significantly in 2022, due to changed climate conditions or other factors used to determine AOC scope, SCE will make reasonable attempts to access, inspect and clear, where necessary, all environmentally approved poles within the defined/identified AOC boundaries for 2022, whether that pole count is lesser or greater than the anticipated 26,400.they do not have an associated Target% / Top Risk%.
Recruiting and training of vegetation management personnel	N/A	N/A	N/A	N/A	N/A	N/A	Maintain the current staffing levels of 95 International Society of Arboriculture (ISA) certified arborists performing work within SCEs service territory. Inclusive of SCE personnel and contractors.	N/A	Targets primarily driven by: Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance, Enabling Activity	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of employee title and employer	ISA Certified Arborists	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
Substation Inspections	N/A	N/A	N/A	N/A	N/A	N/A	SCE performs substation inspections on 169 substations in HFRA. SCE plans to inspect all 169 substations, 5 times a year for GO174 Substations (146 Substations) and ISO & FERC Substations (23 Substations), for a total of 845 inspections.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of inspections performed at substations.	Substation Inspected	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
Vegetation Inspections Audited Annually	400 Transmission circuit miles 450 Distribution circuit miles	870 Transmission circuit miles 2,155 Distribution circuit miles	Perform 3,000 risk based HFRA circuit mile vegetation management Quality Control inspections	SCE achieved over 6,000 HFRA circuit mile inspections	Perform 3,000 risk based HFRA circuit mile vegetation management Quality Control inspections	SCE achieved over 6,000 HFRA circuit mile inspections	SCE plans to perform risk-based circuit mile Quality Control (QC) inspections on approximately 15% of SCEs total tree inventory.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	1. Listing of grids with corresponding mileage subject to QC inspections. 2. Listing showing QC performed.	% of vegetation inspections audited	Y	In accordance with Pub. Util. Code Section ***8386.3(c)(5)*** , SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
Poles brushed per PRC 4292	N/A	N/A	N/A	N/A	N/A	N/A	SCE will inspect and clear (where clearance is needed) 55,100 poles in State Responsibility Area with the equipment identified by PRC 4292, with the exception of poles for which there are customer access or environmental constraints, or poles that are exempt under 14 Cal. Code of Regulations 1255 (e.g., poles in fruit orchards that are plowed or cultivated).	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of locations of poles inspected, remediated, and attempted to inspect and remediate.	# of poles brushed (cleared)	Y	In accordance with Pub. Util. Code Section ***8386.3(c)(5)*** , SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
LiDAR Vegetation Inspections – Distribution	N/A	N/A	N/A	N/A	Perform LiDAR inspections on approximately 90 circuit miles	Performed LiDAR inspections on approximately 90 circuit miles	SCE will inspect at least 500 HFRA circuit miles	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of circuits flown by LiDAR.	Number of Circuit Miles	Y	In accordance with Pub. Util. Code Section ***8386.3(c)(5)*** , SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
LiDAR Vegetation Inspections – Transmission	Perform LiDAR inspections on approximately 1,000 circuit miles	Perform LiDAR inspections on approximately 1,570 circuit miles	Perform LiDAR inspections on approximately 1,700 circuit miles	Perform LiDAR inspection on approximately 1,700 circuit miles	Perform LiDAR inspections on approximately 1,590 circuit miles	Perform LiDAR inspections on approximately 1,590 circuit miles	SCE will inspect at least 1600 HFRA circuit miles	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of circuits flown by LiDAR.	Number of Circuit Miles	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.
Substation vegetation inspections	N/A	N/A	N/A	N/A	N/A	N/A	SCE will perform Vegetation Management substation inspections in Tier 2 & Tier 3 totaling 169 substations.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Listing of inspections performed at substations.	# of substations inspected	Y	In accordance with Pub. Util. Code Section 8386.3(c)(5), SCE has populated Table 5.3-1 with vegetation management program targets that the utility can determine when it has completed a "substantial portion" and that Energy Safety can subsequently audit. As the additional vegetation management program targets are not designated SCE wildfire programs they do not have an associated Target% / Top Risk%.

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[61])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
Customer Care Programs (PSPS-2)	N/A	CRC: Contracted with 13 CRCs. Community Resiliency Programs: Identified, and secured agreement from one pilot customer Customer Resiliency Equipment: N/A	Have 23 sites available across SCE service territory for customers impacted by a PSPS Develop a customer resiliency equipment incentive pilot program that provides financial support to customers willing to increase resiliency within its HFRA One customer will be implemented for this pilot in 2020.	CRC: 56 contracted CRCs. Community Resiliency Programs: Secured Customer Agreements for four Resiliency Zone sites. Completed installation of microgrid islanding capability for first pilot customer for CREI. Customer Resiliency Equipment: CCBB - Reached out to all eligible 'Critical Care' MBL customers enrolled in CARE/FERA	CRC: Adjust as needed. Community Resiliency Programs: Goals for Resilience Zones dependent on community potential customers. Targeting to obtain 5 to 10 agreements. Complete installation of microgrid islanding (CREI) capability on second pilot customer. Customer Resiliency Equipment:CCBB: Expand program to eligible MBL customers who are enrolled in CARE/FERA and reside HFRA. Expand marketing and outreach plans. Well Water & Res Battery Station Rebates: Enhance the programs to increase customer participation by 20% - 40%	CRC: contracted 11 new indoor CRC and 2 outdoor CRC locations resulting in a total of 64 active CRC sites as of 12/31/2021. Community Resiliency Programs: Executed on four out of 5 customer agreements. CCBB: Expanded program to eligible MBL customers enrolled in CARE/FERA and reside HFRA and established additional partners (CBOs). Res Battery Station Rebate & Well Water Generator Rebate: Increased customer participation by ~131%.	Customer Resiliency Equipment: CCBB: Enroll 2,750 customers in the CCBB program (35% of forecasted eligible population). Continue to identify new eligible customers each month to offer program. Portable Power Station Rebates and Portable Generator Rebates: SCE to issue 3,000 rebates and will strive to issue 4,000 rebates.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Count of customers enrolled in or redemption of various customer care programs.	Number of customers participating in the program	Y	
Customer Education and Engagement – Community Meetings (DEP-1.2)	Develop Local Government Education and Engagement Community Meeting plan. Execute Local Government Education and Engagement Community Meeting according to plan	Hosted 13 in-person community meetings	Host 8-12 community meetings in areas impacted by 2019 PSPS plus other meetings including online as determined to share information about PSPS, emergency preparedness, and SCE's wildfire mitigation plan	Hosted nine virtual community meetings	Host at least nine virtual community meetings SCE will complete additional meetings as needed in 2021, based on PSPS impact to communities, up to 18	Hosted 11 wildfire safety community livestream meetings for communities to learn more about SCE's wildfire mitigation plan, PSPS, and emergency preparedness. SCE exceeded its 2021 goal of hosting nine meetings.	SCE will host at least nine wildfire community safety meetings in targeted communities based on the impact of 2021 PSPS events and ongoing wildfire mitigation activities.	N/A	Targets primarily driven by: Operational Feasibility (the number of community meetings will vary year to year, based on PSPS impact to communities the previous year), Cost to Customers, Resource Availability, Compliance	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	List and recordings of meetings posted on SCE website	Community meetings	Y	
Customer Education and Engagement – Marketing Campaign (DEP-1.3)	Conduct a direct mail campaign to inform customers in HFRA	PSPS Awareness of 54% exceeded goal of 40%	Marketing campaign to reach 5,000,000 Customer Accounts (goal of 40% awareness about the purpose of PSPS, emergency preparedness, and SCE's wildfire mitigation plan)	PSPS Awareness of 56% exceeded goal of 40%	PSPS Awareness goal: 50%	2021 PSPS awareness was at ~60%	PSPS Awareness goal: 50%	N/A	Targets primarily driven by: Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Enabling Activity	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Results of the surveys conducted by independent third party and samples of the letters and other marketing materials	Customer awareness percentage	Y	
SCE Emergency Responder Training (DEP-2)	1) Wildfire response training for new or existing responders 2) Conduct internal IMT Training around wildfire response and de-energization protocol	IMT – Trained 100% of the members. Unmanned Aerial Systems (UAS – N/A, program started in 2020	Hold SCE IMT member training on de- energization protocols, determine additional staffing needs and train, exercise and qualify new staff	IMT – Trained 100% of the members. UAS – Trained 50 operators	IMT – Have all PSPS IMT and Task Force members fully trained and qualified or requalified by July 1, 2021 UAS – In 2021 SCE plans to expand the program by an additional 50 operators over 2020 levels	IMT – Trained 100% of the members. UAS – 60 Resources passed the FAA) 107 exam in 2021	IMT – Have all PSPS IMT and Task Force members fully trained and qualified or requalified by July 1, 2022 UAS – SCE plans to expand the program by technically qualifying 50 UAS Operators that have passed the FAA 107 exam.	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Enabling Activity	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	IMT - Training summary and materials UAS - Listing of certifications completed	Persons trained (IMT) Persons qualified (UAS)	Y	
Customer Research and Education (DEP-4)	N/A	N/A (commenced planning for the 2019 PSPS Tracker to capture feedback on the 2019 events)	Develop/implement various research activities that gauge customer awareness, preparedness for, and satisfaction with outage experiences; to include but not be limited to: town hall meetings, online & telephone surveys, focus groups, and assessments of programs & services to prepare customers before and after PSPS outages	Administered 5 surveys (PSPS Tracker Survey to capture feedback on the 2019 events; wildfire community meeting feedback survey, CRC/CCV feedback survey, PSPS digital user experience survey, In-Language Wildfire Mitigation Communications Effectiveness Pre/Post Survey	Administer at least 4 PSPS-related surveys (PSPS Tracker Survey to capture feedback on the 2020 events, wildfire community meeting feedback survey, CRC/CCV feedback survey, In-Language Wildfire Mitigation Communications Effectiveness Pre/Post Survey)	Administered 9 surveys: PSPS Tracker, wildfire safety community meeting surveys, CRC/CCV visitation surveys, In-Language Wildfire Mitigation Communications Effectiveness Pre-/Post-Surveys, AFN Customer & CBO Research Study, AFN Webpage User Experience Research, PSPS Working Groups/Advisory Board Surveys, Post PSPS Event Surveys for Public Safety Partners, Voice of Customer Surveys	SCE plans to conduct at least six PSPS-related surveys in 2022, including the PSPS Tracker survey, wildfire safety community meeting feedback survey, CRC/CCV feedback survey, In-Language Wildfire Mitigation Communications Effectiveness Surveys, PSPS Working Group and Advisory Board Surveys, and the Voice of Customer surveys.	N/A	Targets primarily driven by: Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability, Enabling Activity	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Summary of survey results	Number of surveys	Y	

Table 5.3- 1
List and Description of Program Targets, Last Five Years

Program Target	2019		2020		2021		2022		Assumptions That Underlie Use of the Metrics	Assumptions That Underlie Update Frequency	How Performance Reported Could be Validated by Third Parties Outside Each Utility	Units	Audited by Third-Party? (Y/N)	Notes (Including definitions and sources for Top-Risk%[4][1])
	Target	Perf.	Target	Perf.	Target	Perf.	Target	Target% / Top Risk%[1]						
Aerial Suppression (DEP-5)	N/A	N/A	N/A	Provided funding for 1 aerial suppression resource in partnership with Orange County Fire Authority	Will enter a Memorandum of Understanding (MOU) with local county fire departments to provide standby cost funding for up to 5 aerial suppression resources strategically placed around the SCE service area	Provided funding to support three local fire agencies. In consultation with the fire agencies, SCE identified the optimal strategy for the placement of these resources, based on SCE's budget parameters, placing one resource in Ventura County, one in Los Angeles County and two in Orange County.	Will enter into a Memorandum of Understanding (MOU) with local county fire departments to provide standby cost funding for up to five aerial suppression resources strategically placed around the SCE service area	N/A	Targets primarily driven by: Risk Analysis, Operational Feasibility / Lead Time to Deploy, Cost to Customers, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	MOU outlining aerial agreements with fire agencies/ stakeholders	Aerial Suppression resources	Y	
Wildfire Safety Data Mart and Data Management (WiSDM / Ezy) (DG-1)	N/A	N/A	N/A	N/A	**WiSDM:** - Complete the WiSDM solution analysis and design for centralized data repository -Initiate staggered consolidation of datasets from SCE Enterprise systems **Ezy Data:** - Implement the cloud platform infrastructure for Ezy Data - Build a solution for data consumption, storage and visualization of inspection data (LiDAR, HD video, photograph) - Enable an environment for Artificial Intelligence (AI) assisted analytics	Ezy Data met target to include implementing the cloud platform infrastructure for Ezy Data and enabling an environment for Artificial Intelligence (AI) assisted analytics. WiSDM met target in December 2021 after initiating the staggered consolidation of datasets and included two datasets, weather stations and HD cameras, into the WiSDM centralized repository.	**Ezy Data:** 1) Expand cloud Artificial Intelligence (AI) platform 2) Enable LIDAR data storage capability WiSDM: 1) Complete wildfire data repository design 2) Consolidate wildfire data storage onto wildfire data repository platform	N/A	Targets primarily driven by: Operational Feasibility / Lead Time to Deploy, Cost to Customers, Enabling Activity, Resource Availability	Status of target progress is tracked monthly and reported in the quarterly and annual reports. Updates are also provided for ongoing initiatives on an ad hoc basis throughout the year.	Ezy: Demonstration of cloud AI expansion; LiDAR data storage enabled within Ezy WiSDM: Completed design document; Data storage housed within wildfire data repository platform	N/A	Y	

[1] The targeted top risk percentage is based on forecasted scope for 2022, but that scope is subject change due to operational issues (e.g. permitting causes delay and requires other scope to be advanced instead).
[2] Span defined as 1 phase from one structure to another
[3] Splice defined as individual splice
[4] Conductor Sample defined as 15ft segment of conductor

Utility	Southern California Edison Company
Table No.	3
Date Modified	4/6/2022

Note: These columns are placeholders for future QR submissions.

Table 3: List and description of additional metrics

Metric	Definition	Purpose	Assumptions made to connect metric to purpose	Third-party validation (if any)	2015	2016	2017	2018	2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Unit(s)	Comments
CPUC reportable ignitions in High Fire Risk Areas (HFRA)	Events meeting reportable ignition status per Decision 14-02-015 and falling within BL322, HFTD Zone 1 HFTD Tier 2 and 200 ft. Outer Buffer, and HFTD Tier 3 and 200 ft. Outer Buffer areas	To measure changes in rate of ignitions between years	Factors outside of SCE's control (e.g., wind, live fuel moisture) have a significant effect on CPUC reportable ignition counts in HFRA.	Annual submission of CPUC reportable ignition totals to CPUC	46	41	35	37	38	3	22	16	9	7	23	14	4					Number of reportable ignitions in HFRA	HFRA includes HFTD Tier 3, HFTD Tier 2, HFTD Zone 1, and BL322 (non-CPUC HFRA)
Faults in HFRA	Events in which electrical current deviates from the anticpated path via SCE facilities within BL322, HFTD Zone 1 HFTD Tier 2 and 200 ft. Outer Buffer, and HFTD Tier 3 and 200 ft. Outer Buffer areas	To measure changes in rate of fault events which are a pre-cursor both ignition and safety events	Number of faults in HFRA based on cause. These metrics may help to provide insight on controllable and uncontrollable risks or help plan future activities to focus on a particular type of fault or outage that may be of wildfire risk.	Deep-dive audits of select portions of utility grid	1,905	2,186	2,369	2,432	4,309	623	668	873	660	620	529	593	614					Number of faults in HFRA	HFRA includes HFTD Tier 3, HFTD Tier 2, HFTD Zone 1, and BL322 (non-CPUC HFRA). Note: SCE is incorporating additional Transmission outage data as an improvement to its outage reporting. Historical reporting has been revised to reflect the additional Transmission outage data.
Wire Down Incidents in HFRA	Events in which SCE overhead conductors (energized or de-energized) fall within 8ft above ground or lower, within BL322, HFTD Tier 2 and 200 ft. Outer Buffer, and HFTD Tier 3 and 200 ft. Outer Buffer areas	To measure changes in rate of wire down events which are a pre-cursor both ignition and safety events	Number of wire down incidents in HFRA based on cause. These metrics may help to provide insight on controllable and uncontrollable risks or help plan future activities to focus on a particular type of fault or outage that may be of wildfire risk.	Deep-dive audits of select portions of utility grid	277	496	571	338	409	77	98	81	92	142	63	64	129					Number of wire downs per year in HFRA	HFRA includes HFTD Tier 3, HFTD Tier 2, HFTD Zone 1, and BL322 (non-CPUC HFRA)
Number of customers and average duration of Public Safety Power Shutoff (PSPS) events																							
Total # of customers de-energized	Count of customers de-energized, with duplicates, per year	To measure the scale of impact of outages due to PSPS to customers, with duplicates	Not Applicable	Not Applicable	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.	Refer to Table 11, # 4.a.					Number of customers	None
Average duration of de-energization across all customers.	Average outage duration (hours per customer) experienced by PSPS de-energization per customer de-energized	Of the customers de-energized due to PSPS, to measure the magnitude of the effect of the PSPS de-energization	Not Applicable	Not Applicable	N/A	N/A	30.3	23.2	27	N/A	N/A	2.2	18.3	23.9	2.9	9.8	25.0					Hours	Applies to each instance of a customer being de-energized due to PSPS
Timeliness and accuracy of PSPS notifications																							
% of customers notified prior to a PSPS event impacting them	# of customers notified prior to initiation of PSPS event who were impacted by PSPS/ # of customers impacted by PSPS (if multiple PSPS events impact the same customer, count each event as a separate customer)	To measure success rate of notification for the customers who were impacted by de-energization	Not Applicable	Not Applicable	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.	Refer to Table 11, # 4.e.					Percentage	None
% of customers notified prior to a PSPS event that did not impact them	% of customers notified of potential de-energization that were not de-energized for that PSPS event (on a total customer basis) 1 - (# of total customers de-energized / # of imminent de-energization notifications sent)	To measure the occurrence of PSPS notifications and de-energizations	Not Applicable	Not Applicable	N/A	N/A	N/A	N/A	N/A	N/A	100%	39%	61%	65%	87%	0%	25%					% of customers notified of imminent potential de-energization that were not de-energized for that PSPS event (on a total customer basis)	This data was not recorded prior to 2020.

Utility	Southern California Edison Company
Table No.	8
Date Modified	4/6/2022

Table 8: State of service territory and utility equipment

Note: These columns are placeholders for future QR submissions.

Metric type	#	Outcome metric name	Non-HFTD 2015	HFTD Zone 1 2015	HFTD Tier 2 2015	HFTD Tier 3 2015	Non-HFTD 2016	HFTD Zone 1 2016	HFTD Tier 2 2016	HFTD Tier 3 2016	Non-HFTD 2017	HFTD Zone 1 2017	HFTD Tier 2 2017	HFTD Tier 3 2017	Non-HFTD 2018	HFTD Zone 1 2018	HFTD Tier 2 2018	HFTD Tier 3 2018	Non-HFTD 2019	HFTD Zone 1 2019	HFTD Tier 2 2019	HFTD Tier 3 2019	Non-HFTD 2020	HFTD Zone 1 2020	HFTD Tier 2 2020	HFTD Tier 3 2020	Non-HFTD 2021	HFTD Zone 1 2021	HFTD Tier 2 2021	HFTD Tier 3 2021	Non-HFTD 2022	HFTD Zone 1 2022	HFTD Tier 2 2022	HFTD Tier 3 2022	Unit(s)	Comments
1. State of service territory and equipment in urban areas	1.a.	Circuit miles (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17,160	1	1,126	1,453	17,053	1	1,035	1,428	31,533	0	2,267	2,943					Circuit miles	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.b.	Circuit miles in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,446	0	750	1,364	3,482	0	674	1,339	2,264	0	481	762					Circuit miles in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.c.	Number of critical facilities (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36,757	6	2,550	3,923	36,911	6	2,207	3,917	36,944		1,889	2,991					Number of critical facilities	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included some locations outside of SCE's service territory within California, whereas 2020-2021 data solely includes critical facilities within SCE's service territory within California. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.d.	Number of critical facilities in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,305	5	1,676	3,489	7,502	5	1,417	3,489	4,657	0	860	2,098					Number of critical facilities in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included some locations outside of SCE's service territory within California, whereas 2020-2021 data solely includes critical facilities within SCE's service territory within California. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.e.	Number of customers (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,790,432	545	209,126	323,745	3,790,432	545	209,126	323,745	3,316,257	15	126,254	226,932					Number of customers	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.f.	Number of customers in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	778,819	525	149,646	294,005	778,819	525	149,646	294,005	511,274	13	71,212	183,954					Number of customers in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.g.	Number of customers belonging to access and functional needs populations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,032,899	32	30,783	44,840	1,032,899	32	30,783	44,840	1,201,396	7	27,699	44,897					Number of customers belonging to access and functional needs populations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.h.	Number of customers belonging to access and functional needs populations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	206,260	21	23,970	41,362	206,260	21	23,970	41,362	168,390	0	16,523	37,395					Number of customers belonging to access and functional needs populations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.i.	Circuit miles of overhead transmission lines (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,954	0	218	224	1,937	0	204	215	2,581	0	303	353					Circuit miles of overhead transmission lines	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.j.	Circuit miles of overhead transmission lines in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	293	0	131	182	301	0	121	174	255	0	110	158					Circuit miles of overhead transmission lines in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.k.	Circuit miles of overhead distribution lines (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,206	1	908	1,229	15,116	1	831	1,213	13,772	0	708	775					Circuit miles of overhead distribution lines	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.l.	Circuit miles of overhead distribution lines in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,153	0	619	1,181	3,181	0	553	1,166	2,009	0	370	604					Circuit miles of overhead distribution lines in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.m.	Number of substations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	231	0	23	17	230	0	12	13	392	0	18	19					Number of substations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all substations, including those outside of California, whereas 2020-2021 data solely includes substations within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.n	Number of substations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	47	0	16	16	43	0	6	12	43	0	6	10					Number of substations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all substations, including those outside of California, whereas 2020-2021 data solely includes substations within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.

Table 8: State of service territory and utility equipment

Metric type	#	Outcome metric name	Non-HFTD 2015	HFTD Zone 1 2015	HFTD Tier 2 2015	HFTD Tier 3 2015	Non-HFTD 2016	HFTD Zone 1 2016	HFTD Tier 2 2016	HFTD Tier 3 2016	Non-HFTD 2017	HFTD Zone 1 2017	HFTD Tier 2 2017	HFTD Tier 3 2017	Non-HFTD 2018	HFTD Zone 1 2018	HFTD Tier 2 2018	HFTD Tier 3 2018	Non-HFTD 2019	HFTD Zone 1 2019	HFTD Tier 2 2019	HFTD Tier 3 2019	Non-HFTD 2020	HFTD Zone 1 2020	HFTD Tier 2 2020	HFTD Tier 3 2020	Non-HFTD 2021	HFTD Zone 1 2021	HFTD Tier 2 2021	HFTD Tier 3 2021	Non-HFTD 2022	HFTD Zone 1 2022	HFTD Tier 2 2022	HFTD Tier 3 2022	Unit(s)	Comments
,	1.o.	Number of weather stations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	0	18	32	51	0	107	94	51	0	142	136					Number of weather stations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	1.p.	Number of weather stations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	0	11	31	29	0	63	89	16	0	69	86					Number of weather stations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
2. State of service territory and equipment in rural areas	2.a.	Circuit miles (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,536	0	2,127	3,724	8,543	0	2,012	3,676	**8,489**	1	**2,664**	**4,649**					Circuit miles	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.b.	Circuit miles in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,263	0	1,492	2,729	3,307	0	1,408	2,695	1,758	0	830	1,677					Circuit miles in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.c.	Number of critical facilities (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,692	0	1,456	2,894	7,744	0	1,338	2,890	4,846	0	1,290	2,948					Number of critical facilities	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included some locations outside of SCE's service territory within California, whereas 2020-2021 data solely includes critical facilities within SCE's service territory within California. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.d.	Number of critical facilities in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,397	0	1,036	2,348	2,460	0	940	2,343	1,613	0	687	1,822					Number of critical facilities in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included some locations outside of SCE's service territory within California, whereas 2020-2021 data solely includes critical facilities within SCE's service territory within California. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.e.	Number of customers (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	225,587	20	53,624	92,195	225,587	20	53,624	92,195	195,511	8	55,535	112,997					Number of customers	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.f.	Number of customers in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	94,950	16	44,971	83,235	94,950	16	44,971	83,235	107,381	2	45,662	99,248					Number of customers in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.g.	Number of customers belonging to access and functional needs populations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	37,100	4	7,741	9,410	37,100	4	7,741	9,410	61,769	0	15,305	21,164					Number of customers belonging to access and functional needs populations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.h.	Number of customers belonging to access and functional needs populations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19,384	1	6,718	8,676	19,384	1	6,718	8,676	37,808	0	13,355	19,610					Number of customers belonging to access and functional needs populations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.i.	Circuit miles of overhead transmission lines (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,353	0	454	772	1,348	0	444	757	1,328	0	647	1,027					Circuit miles of overhead transmission lines	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.j.	Circuit miles of overhead transmission lines in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	334	0	284	419	336	0	277	410	133	0	144	236					Circuit miles of overhead transmission lines in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.k.	Circuit miles of overhead distribution lines (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,183	0	1,673	2,952	7,195	0	1,567	2,919	4,859	1	1,335	2,363					Circuit miles of overhead distribution lines	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.l.	Circuit miles of overhead distribution lines in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,929	0	1,208	2,310	2,970	0	1,131	2,285	1,626	0	686	1,441					Circuit miles of overhead distribution lines in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.m.	Number of substations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	125	0	18	32	112	0	13	29	124	0	24	39					Number of substations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.

Table 8: State of service territory and utility equipment

Metric type	#	Outcome metric name	Non-HFTD 2015	HFTD Zone 1 2015	HFTD Tier 2 2015	HFTD Tier 3 2015	Non-HFTD 2016	HFTD Zone 1 2016	HFTD Tier 2 2016	HFTD Tier 3 2016	Non-HFTD 2017	HFTD Zone 1 2017	HFTD Tier 2 2017	HFTD Tier 3 2017	Non-HFTD 2018	HFTD Zone 1 2018	HFTD Tier 2 2018	HFTD Tier 3 2018	Non-HFTD 2019	HFTD Zone 1 2019	HFTD Tier 2 2019	HFTD Tier 3 2019	Non-HFTD 2020	HFTD Zone 1 2020	HFTD Tier 2 2020	HFTD Tier 3 2020	Non-HFTD 2021	HFTD Zone 1 2021	HFTD Tier 2 2021	HFTD Tier 3 2021	Non-HFTD 2022	HFTD Zone 1 2022	HFTD Tier 2 2022	HFTD Tier 3 2022	Unit(s)	Comments
	2.n	Number of substations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25	0	10	26	21	0	6	24	16	0	5	18					Number of substations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.o.	Number of weather stations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	0	53	152	30	0	144	273	30	0	187	395					Number of weather stations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	2.p.	Number of weather stations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9	0	39	119	14	0	105	216	11	0	75	187					Number of weather stations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
3. State of service territory and equipment in highly rural areas	3.a.	Circuit miles (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12,179	1	2,758	2,992	11,688	1	2,645	2,916	21,112	7	3,919	4,703					Circuit miles	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.b.	Circuit miles in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	94	0	35	44	94	0	25	44	2,722	0	910	1,629					Circuit miles in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.c.	Number of critical facilities (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21,784	0	1,767	2,598	21,728	0	1,613	2,560	13,483	5	2,062	3,260					Number of critical facilities	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included some locations outside of SCE's service territory within California, whereas 2020-2021 data solely includes critical facilities within SCE's service territory within California. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.d.	Number of critical facilities in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	0	22	32	99	0	18	29	3,020	4	938	1,881					Number of critical facilities in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included some locations outside of SCE's service territory within California, whereas 2020-2021 data solely includes critical facilities within SCE's service territory within California. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.e.	Number of customers (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	379,812	8	24,861	37,774	379,812	8	24,861	37,774	944,764	420	92,639	127,383					Number of customers	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.f.	Number of customers in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,566	0	968	1,578	2,566	0	968	1,578	297,274	377	67,958	110,603					Number of customers in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.g.	Number of customers belonging to access and functional needs populations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44,535	0	2,492	2,674	44,535	0	2,492	2,674	332,340	0	19,356	25,302					Number of customers belonging to access and functional needs populations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.h.	Number of customers belonging to access and functional needs populations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	342	0	54	100	342	0	54	100	107,332	0	15,341	23,146					Number of customers belonging to access and functional needs populations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.i.	Circuit miles of overhead transmission lines (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,161	0	1,286	1,400	4,764	0	1,256	1,372	4,034	0	1,000	988					Circuit miles of overhead transmission lines	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.j.	Circuit miles of overhead transmission lines in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8	0	3	3	8	0	3	5	239	0	162	201					Circuit miles of overhead transmission lines in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.k.	Circuit miles of overhead distribution lines (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,018	1	1,472	1,593	6,924	1	1,389	1,544	10,377	1	1,876	2,512					Circuit miles of overhead distribution lines	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.l.	Circuit miles of overhead distribution lines in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86	0	31	41	86	0	21	39	2,483	0	748	1,429					Circuit miles of overhead distribution lines in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.

Table 8: State of service territory and utility equipment

Metric type	#	Outcome metric name	Non-HFTD 2015	HFTD Zone 1 2015	HFTD Tier 2 2015	HFTD Tier 3 2015	Non-HFTD 2016	HFTD Zone 1 2016	HFTD Tier 2 2016	HFTD Tier 3 2016	Non-HFTD 2017	HFTD Zone 1 2017	HFTD Tier 2 2017	HFTD Tier 3 2017	Non-HFTD 2018	HFTD Zone 1 2018	HFTD Tier 2 2018	HFTD Tier 3 2018	Non-HFTD 2019	HFTD Zone 1 2019	HFTD Tier 2 2019	HFTD Tier 3 2019	Non-HFTD 2020	HFTD Zone 1 2020	HFTD Tier 2 2020	HFTD Tier 3 2020	Non-HFTD 2021	HFTD Zone 1 2021	HFTD Tier 2 2021	HFTD Tier 3 2021	Non-HFTD 2022	HFTD Zone 1 2022	HFTD Tier 2 2022	HFTD Tier 3 2022	Unit(s)	Comments
	3.m.	Number of substations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420	0	62	49	322	0	49	40	241	0	63	46					Number of substations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.n	Number of substations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1	0	0	0	2	0	0	1	23	0	12	16					Number of substations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. Furthermore, 2019 data included all circuit miles, including those outside of California, whereas 2020-2021 data solely includes circuit miles within the state of California for assets SCE maintains (which does include some assets outside of SCE's service territory). SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.o.	Number of weather stations (including WUI and non-WUI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36	0	90	137	47	0	348	465	43	0	248	342					Number of weather stations	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.
	3.p.	Number of weather stations in WUI	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0	3	0	0	0	10	4	14	0	80	157					Number of weather stations in WUI	It is important to note that GIS models are updated frequently to reflect changes within SCE's service area and for data clean-up. SCE does not have the ability to analyze and calculate information in previous years since the GIS data is dynamic and cannot be pulled retroactively. Accordingly, while SCE has provided data on an annual basis starting with 2019, 2015-2018 data is not available. SCE is still conducting quality control review of all the data and will correct any errors once its review is complete.

Utility	Southern California Edison Company
Table No.	11
Date Modified	4/6/2022

Notes:
"PSPS" = Public Safety Power Shutoff
In future submissions update planned upgrade numbers with actuals

Note: Final QC of PSPS data is being peformed. Updated statistics of SCE's 2021 PSPS season will be provided in SCE's March 1, 2022 PSPS Post Season Report and incorporated into future Quarterly Data Table submissions'

Table 11: Recent use of PSPS and other PSPS metrics

Metric type	#	Outcome metric name	Actual 2015	2016	2017	2018	2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Projected Q1 2022	Q2 2022	Q3 2022	Q4 2022	Unit(s)	Comments
1. Recent use of PSPS	1.a.	Frequency of PSPS events (total)	0	0	1	3	7	0	0	2	8	1	1	1	5	0	0	2	6	Number of instances where utility operating protocol requires de-energization of a circuit or portion thereof to reduce ignition probability, per year. Only include events in which de-energization ultimately occurred	During 2020, SCE initiated 12 PSPS events (2 of which SCE did not de-energize, Table 11, Metric Type 5.a.) with 16 periods of concern, i.e., periods of time when de-energization was likely to occur due to forecast weather and fuel conditions, 16 relates to periods of concerns. For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	1.b.	Scope of PSPS events (total)	0	0	7	6	267	0	0	7	417	160	1	1	122	0	0	13	182	Circuit-events, measured in number of events multiplied by number of circuits de-energized per year	SCE interprets this line item as de-energized circuit count. Additionally, the numbers being reported may not align with the ESRB-8 report because that report uses preliminary operations data that has not been fully validated. For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	1.c.	Duration of PSPS events (total)	0	0	87,019	3,570	5,275,193	0	0	3,981	4,451,955	1,953,962	224	88	1,745,980	540,596	62	227,118	2,469,956	Customer hours per year	For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
2. Customer hours of PSPS and other outages	2.a.	Customer hours of planned outages including PSPS (total)	0	11,067,182	10,406,442	9,556,442	10,918,480	1,236,491	770,811	1,295,679	6,103,855	3,778,268	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Total customer hours of planned outages per year	SCE has not traditionally calculated reliability metrics tied to planned outages. Since 2019, SCE has been improving and refining its planned outage reliability reporting, therefore the years after 2018 reflect not only actual changes but changes due to the improved process. Further, SCE does not consider PSPS to be planned outages but has included PSPS metrics in this row as requested by WSD. SCE is currently unable to provide planned outage data metrics due to recent IT system implementation issues. SCE is actively investigating this issue and will provide the data when it is available. Forecast is based on time-series forecast.
	2.b.	Customer hours of unplanned outages, not including PSPS (total)	8,401,612	9,276,813	7,788,697	6,088,158	7,617,913	1,480,964	1,496,752	2,350,456	2,224,812	1,615,913	1,896,189	3,106,304	173,281	1,688,577	1,696,471	2,728,380	1,199,047	Total customer hours of unplanned outages per year	Forecast is based on time-series forecast.
	2.c.	System Average Interruption Duration Index (SAIDI) (including PSPS)	100.15	241.21	214.28	183.09	215.91	31.46	26.25	42.21	96.41	63.08	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	SAIDI index value = sum of all interruptions in time period where each interruption is defined as sum(duration of interruption * # of customer interruptions) / Total number of customers served	SCE has not traditionally calculated reliability metrics tied to planned outages. Since 2019, SCE has been improving and refining its planned outage reliability reporting, therefore the years after 2018 reflect not only actual changes but changes due to the improved process. Further, SCE does not consider PSPS to be planned outages but has included PSPS metrics in this row as requested by WSD. SCE is currently unable to provide planned outage data metrics due to recent IT system implementation issues. SCE is actively investigating this issue and will provide the data when it is available. Forecast is based on time-series forecast.
	2.d.	System Average Interruption Duration Index (SAIDI) (excluding PSPS)	100.15	241.21	213.25	183.04	154.47	31.46	26.25	42.16	44.88	39.76	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	SAIDI index value = sum of all interruptions in time period where each interruption is defined as sum(duration of interruption * # of customer interruptions) / Total number of customers served	SCE has not traditionally calculated reliability metrics tied to planned outages. Since 2019, SCE has been improving and refining its planned outage reliability reporting, therefore the years after 2018 reflect not only actual changes but changes due to the improved process. Forecast is based on time-series forecast. SCE is currently unable to provide planned outage data metrics due to recent IT system implementation issues. SCE is actively investigating this issue and will provide the data when it is available.
	2.e.	System Average Interruption Frequency Index (SAIFI) (including PSPS)	1.164	1.335	1.203	1.029	1.105	0.222	0.216	0.282	0.321	0.293	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	SAIFI index value = sum of all interruptions in time period where each interruption is defined as (total # of customer interruptions) / (total # of customers served)	SCE has not traditionally calculated reliability metrics tied to planned outages. Since 2019, SCE has been improving and refining its planned outage reliability reporting, therefore the years after 2018 reflect not only actual changes but changes due to the improved process. Further, SCE does not consider PSPS to be planned outages but has included PSPS metrics in this row as requested by WSD. SCE is currently unable to provide planned outage data metrics due to recent IT system implementation issues. SCE is actively investigating this issue and will provide the data when it is available. Forecast is based on time-series forecast.
	2.f.	System Average Interruption Frequency Index (SAIFI) (excluding PSPS)	1.164	1.335	1.203	1.029	1.067	0.222	0.216	0.281	0.279	0.270	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	Not Currently Available	SAIFI index value = sum of all interruptions in time period where each interruption is defined as (total # of customer interruptions) / (total # of customers served)	SCE is currently unable to provide planned outage data metrics due to recent IT system implementation issues. SCE is actively investigating this issue and will provide the data when it is available. Forecast is based on time-series forecast.
3. Critical infrastructure impacted by PSPS	3.a.	Critical infrastructure impacted by PSPS	0	0	NA	NA	5,868	0	0	12	5,123	1,969	3	3	2,290	817	1	6	3,076	Number of critical infrastructure (in accordance with D.19-05-042) locations impacted per hour multiplied by hours offline per year	The numbers being reported may not align with the ESRB-8 report because that report uses preliminary operations data that has not been fully validated. SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available. For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further
4. Community outreach of PSPS metrics	4.a.	# of customers impacted by PSPS	0	0	2,861	112	198,826	0	0	270	229,530	110,608	78	9	85,150	41,478	29	105	118,005	# of customers impacted by PSPS (if multiple PSPS events impact the same customer, count each event as a separate customer)	The numbers being reported may not align with the ESRB-8 report because that report uses preliminary operations data that has not been fully validated. For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	4.b.	# of medical baseline customers impacted by PSPS	0	0	NA	NA	4,043	0	0	11	7,725	3,096	3	0	2,791	1,161	1	4	3,944	# of customers impacted by PSPS (if multiple PSPS events impact the same customer, count each event as a separate customer)	The numbers being reported may not align with the ESRB-8 report because that report uses preliminary operations data that has not been fully validated. SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available. For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	4.c.	# of customers notified prior to initiation of PSPS event	0	0	NA	NA	155,824	0	0	232	143,908	74,758	66	9	59,709	39,404	28	99	112,105	# of customers notified of PSPS event prior to initiation (if multiple PSPS events impact the same customer, count each event in which customer was notified as a separate customer)	The numbers being reported may not align with the ESRB-8 report because that report uses preliminary operations data that has not been fully validated. SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available.
	4.d.	# of medical baseline customers notified prior to initiation of PSPS event	0	0	NA	NA	3,044	0	0	15	7,531	2,307	3	0	2,498	1,103	1	4	3,746	# of customers notified of PSPS event prior to initiation (if multiple PSPS events impact the same customer, count each event in which customer was notified as a separate customer)	The numbers being reported may not align with the ESRB-8 report because that report uses preliminary operations data that has not been fully validated. SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available.
	4.e.	% of customers notified prior to a PSPS event impacting them	0	0	NA	NA	78%	0	0	85%	62%	68%	85%	100%	70%	95%	95%	95%	95%	=4.c. / 4.a.	SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available.
	4.f.	% of medical baseline customers notified prior to a PSPS event impacting them	0	0	NA	NA	75%	0	0	100%	88%	75%	100%	#DIV/0!	90%	95%	95%	95%	95%	=4.d. / 4.b.	SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available.
5. Other PSPS metrics	5.a.	Number of PSPS events triggered where no de-energization occurred	0	0	NA	NA	7	0	2	0	0	0	1	0	1	0	2	2	0	Number of instances where utility notified the public of a potential PSPS event but no de-energization followed	SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available.
	5.b.	Number of customers located on de-energized circuit	0	0	NA	NA	237,666	0	0	5,820	407,853	597,448	78	9	155,522	0	0	18,725	262,154	Number of customers	This data includes the number of customers on a circuit whether they were de-energized or not For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further
	5.c.	Customer hours of PSPS per RFW OH circuit mile day	0	0	NA	NA	NA	0	0	17	434	875	11	0	491	363	5	7	384	=1.c. / RFW OH circuit mile days in time period	For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	5.d.	Frequency of PSPS events (total) - High Wind Warning wind conditions	0	0	NA	NA	NA	0	0	1	8	1	1	0	2	1	1	1	5	Events over time period that overlapped with a High Wind Warning as defined by the National Weather Service	For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	5.e.	Scope of PSPS events (total) - High Wind Warning wind conditions	0	0	NA	NA	NA	0	0	7	392	151	1	0	88	57	1	3	180	Estimated customers impacted over time period that overlapped with a High Wind Warning as defined by the National Weather Service	For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5
	5.f.	Duration of PSPS events (total) - High Wind Warning wind conditions	0	0	NA	NA	NA	0	0	3,500	4,298,692	1,826,480	4	0	1,741,266	757,989	2	1,452	2,506,582	Customer hours over time period that overlapped with a High Wind Warning as defined by the National Weather Service	For Q2-Q4 2021 time periods, SCE used 2020 recorded data adjusted for improvement expected based on SCE's planned wildfire mitigation activities to create a baseline. To factor in weather variability, which has significant impacts on PSPS events, SCE developed a range around the baseline. The range was based on an 18 year backcast analysis that analyzed how current PSPS triggers would have resulted in PSPS events when applied to historical weather data. For further details on calculating the range, please see section 8.5 SCE also notes, that earlier PSPS events were not tracked and recorded in the same level of detail as it is now, therefore not all data is available. Historical numbers were corrected as the original anlaysis methodology was found to be faulty. Additionally, Since historical numbers were adjusted, the

Utility	Southern California Edison Company
Table No.	12
Date Modified	4/6/2022

Notes:

Risk-Spend-Efficiency (RSE) is defined as "An estimate of the cost-effectiveness of initiative, calculated by dividing the mitigation risk reduction benefit by the mitigation cost estimate based on the full set of risk reduction benefits estimated from the incurred costs."
CAPEX = Capital expenditure; OPEX = Operating expenditure.
In future submissions update planned spend, line miles treated, RSE, etc. with updated projections and actuals. Additional instructions can be found in QR information.

Regarding the Territory and HFTD split requested per the 2022 WMP Update Guidelines, SCE has taken three approaches.
(1) Wildfire activities – SCE deploys its wildfire activity spend to mitigate risk in the HFTD. Accordingly, spend for wildfire activities is shown as entirely within HFTD (i.e., Territory spend = HFTD spend).
(2) Vegetation management to achieve clearances around electric lines and equipment – SCE is complying with the 2022 WMP Update Guidelines by setting forth these costs broken down by HFTD and Non-HFTD. SCE notes, however, that this estimate reflects SCE's attempt to reasonably allocate these costs across its service area pursuant to respective tree counts and trim cadences in the HFTD and Non-HFTD areas, respectively. From an operational perspective, though, the same vegetation management contract crews often work in both HFTD and Non-HFTD areas, sometimes on the same days, making it difficult to precisely calculate the costs incurred in different areas. SCE further notes that from a regulatory cost recovery perspective, the CPUC's SCE 2021 General Rate Case Final Decision (D.21-08-036) authorized a Vegetation Management Balancing Account (VMBA) that does not differentiate between HFTD and Non-HFTD areas. Accordingly, SCE records all vegetation management line clearance costs in the VMBA, irrespective of where the trims take place.
(3) Non-wildfire activities – SCE does not track the HFTD vs. Non-HFTD split of its non-wildfire activities. Accordingly, all spend for these activities is simply shown in the Territory column, though this is not to imply that no spend occurs in the HFTD areas.

Table 12: Mitigation initiative financials

Metric type	WMP Table # / Category	2022 WMP Initiative #	Initiative activity	2022 WMP ID	Primary driver targeted	Secondary driver targeted	Year initiated	Estimated RSE territory-wide	Estimated RSE in non-HFTD region	Estimated RSE in HFTD Zone 1	Estimated RSE in HFTD Tier 2	Estimated RSE in HFTD Tier 3	If existing: most recent proceeding	If new: memorandum account	Comments
Other	Risk Assessment & Mapping	7.3.1.1	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment					N/A	N/A	N/A	N/A	N/A			
Other	Risk Assessment & Mapping	7.3.1.2	Climate-driven risk map and modelling based on various relevant weather scenarios					N/A	N/A	N/A	N/A	N/A			
Other	Risk Assessment & Mapping	7.3.1.3	Ignition probability mapping showing the probability of ignition along the electric lines and equipment					N/A	N/A	N/A	N/A	N/A			
Other	Risk Assessment & Mapping	7.3.1.4	Initiative mapping and estimation of wildfire and PSPS risk-reduction impact					N/A	N/A	N/A	N/A	N/A			
Other	Risk Assessment & Mapping	7.3.1.5	Match drop simulations showing the potential wildfire consequence of ignitions that occur along the electric lines and equipment					N/A	N/A	N/A	N/A	N/A			
Other	Situational Awareness & Forecasting	7.3.2.1	Advanced weather monitoring and weather stations	SA-1	PSPS - for sectionalization, etc.		2018	1	1	N/A	2	2		GSRPBA	
Other	Situational Awareness & Forecasting	7.3.2.2.1	Continuous monitoring sensors	SA-9			2018	N/A	N/A	N/A	N/A	N/A		GSRPBA; WMPMA	
Other	Situational Awareness & Forecasting	7.3.2.2.2	Continuous monitoring sensors	SA-10	PSPS - for sectionalization, etc.		2018	586	600	N/A	552	596		NA	
Other	Situational Awareness & Forecasting	7.3.2.3	Fault indicators for detecting faults on electric lines and equipment				N/A	N/A	N/A	N/A	N/A	N/A		NA	
Other	Situational Awareness & Forecasting	7.3.2.3.2	Forecast of a fire risk index, fire potential index, or similar	SA-8	PSPS - for sectionalization, etc.		2019	105	94	N/A	105	114		NA	
Other	Situational Awareness & Forecasting	7.3.2.4.1	Forecast of a fire risk index, fire potential index, or similar					N/A	N/A	N/A	N/A	N/A			
Other	Situational Awareness & Forecasting	7.3.2.4.2	Forecast of a fire risk index, fire potential index, or similar				2019	N/A	N/A	N/A	N/A	N/A		FRMMA	
Other	Situational Awareness & Forecasting	7.3.2.4.3	Forecast of a fire risk index, fire potential index, or similar				2020	N/A	N/A	N/A	N/A	N/A		WMPMA	
Other	Situational Awareness & Forecasting	7.3.2.4.4	Forecast of a fire risk index, fire potential index, or similar					N/A	N/A	N/A	N/A	N/A		WMPMA	
Other	Situational Awareness & Forecasting	7.3.2.5	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	SA-3	PSPS - for sectionalization, etc.		2018	115	103	N/A	115	125		NA	
Other	Situational Awareness & Forecasting	7.3.2.6	Weather forecasting and estimating impacts on electric lines and equipment				2018	N/A	N/A	N/A	N/A	N/A		GSRPBA; WMPMA	
Other	Situational Awareness & Forecasting	7.3.2.6	Weather forecasting and estimating impacts on electric lines and equipment					N/A	N/A	N/A	N/A	N/A		FRMMA	
Grid hardening	Grid Design & System Hardening	7.3.3.1	Capacitor maintenance and replacement program				NA	N/A	N/A	N/A	N/A	N/A		NA	Costs for this initiative are included as part of 7.3.4.9.1
Grid hardening	Grid Design & System Hardening	7.3.3.2	Circuit breaker maintenance and installation to de-energize lines upon detecting a fault	SH-6	Equipment failure	Other contact with object	2018	17873	N/A	N/A	14361	20374		GSRPBA	
Grid hardening	Grid Design & System Hardening	7.3.3.3.1	Covered conductor installation	SH-1	Other contact with object	Wire-to-wire contact	2018	WCCP: 7,884 FR Poles: 3,725	N/A	N/A	WCCP: 6,741 FR Poles: 3,758	WCCP: 8,630 FR Poles: 3,708		GSRPBA	Recorded spend reflects WCCP program only, while miles also include covered conductor installed in HFTD under other programs (95, 185, and 77 miles of non-WCCP in 2019, 2020, and 2021, respectively)
Grid hardening	Grid Design & System Hardening	7.3.3.3.2	Covered conductor installation	SH-10	Equipment failure	Other contact with object	2018	12847	9795	N/A	8370	15265		GSRPBA	
Grid hardening	Grid Design & System Hardening	7.3.3.3.3	Covered conductor installation	SH-16	Other contact with object	Wire-to-wire contact	2022	538	N/A	N/A	N/A	538		NA	
Grid hardening	Grid Design & System Hardening	7.3.3.4	Covered conductor maintenance					N/A	N/A	N/A	N/A	N/A			Costs for this initiative are included as part of 7.3.4.9.1
Grid hardening	Grid Design & System Hardening	7.3.3.5	Crossarm maintenance, repair, and replacement					N/A	N/A	N/A	N/A	N/A			Costs for this initiative are included as part of 7.3.4.9.1
Grid hardening	Grid Design & System Hardening	7.3.3.6	Distribution pole replacement and reinforcement, including with composite poles				NA	N/A	N/A	N/A	N/A	N/A		NA	
Grid hardening	Grid Design & System Hardening	7.3.3.7	Expulsion fuse replacement	SH-4	Equipment failure	Other contact with object	2018	3767	1143	N/A	2918	4213		GSRPBA	
Grid hardening	Grid Design & System Hardening	7.3.3.8.1	Grid topology improvements to mitigate or reduce PSPS events	SH-7			2020	N/A	N/A	N/A	N/A	N/A			This activity entails evaluating circuits highly impacted by PSPS to develop targeted plans for grid hardening and circuit modifications to reduce PSPS impact; cost resulting from this evaluation appear in 7.3.3.1, 7.3.3.9 and 7.3.2.1.
Grid hardening	Grid Design & System Hardening	7.3.3.8.2	Grid topology improvements to mitigate or reduce PSPS events	SH-12			2021	N/A	N/A	N/A	N/A	N/A		MGOIR	
Grid hardening	Grid Design & System Hardening	7.3.3.9	Installation of system automation equipment	SH-5	Equipment failure	Other contact with object	2018	RAR: 4,946 RCS: 2,981	RAR: 581 RCS: 2,237	N/A	RAR: 2,889 RCS: 1,406	RAR: 7,810 RCS: 4,597		GSRPBA; FHPMA	
Grid hardening	Grid Design & System Hardening	7.3.3.10	Maintenance, repair, and replacement of connectors, including hotline clamps					N/A	N/A	N/A	N/A	N/A			Costs for this initiative are included as part of 7.3.4.9.1
Grid hardening	Grid Design & System Hardening	7.3.3.11	Mitigation of impact on customers and other residents affected during PSPS event					N/A	N/A	N/A	N/A	N/A			Costs associated with mitigation of impact on customers during PSPS events are included in 7.3.6.6
Grid hardening	Grid Design & System Hardening	7.3.3.12	Other corrective action	SH-14	Wire-to-wire contact	Equipment failure	2019	3496	N/A	N/A	2086	4923		WMPMA	Additional 2021 recorded spend for this activity is included in 7.3.3.3.1 and 7.3.4.9.1
Grid hardening	Grid Design & System Hardening	7.3.3.12.2	Other corrective action	SH-17	Other contact with object	Equipment failure	2020	28789	0	N/A	N/A	29618		NA	
Grid hardening	Grid Design & System Hardening	7.3.3.13	Pole loading infrastructure hardening and replacement program based on pole loading assessment program				NA	N/A	N/A	N/A	N/A	N/A		NA	This is captured on Initiative 7.3.3.6.; under Distribution Pole Remediations
Grid hardening	Grid Design & System Hardening	7.3.3.14	Transformers maintenance and replacement				NA	N/A	N/A	N/A	N/A	N/A		NA	
Grid hardening	Grid Design & System Hardening	7.3.3.15	Transmission tower maintenance and replacement	SH-13	Contamination	Equipment failure	2020	41	N/A	N/A	0	64		WMPMA	Recorded 2021 spend for this activity is included in 7.3.4.10
Grid hardening	Grid Design & System Hardening	7.3.3.16	Undergrounding of electric lines and/or equipment	SH-2	Other contact with object	Wire-to-wire contact	2019	1182	N/A	N/A	1667	1126		WMPMA	
Grid hardening	Grid Design & System Hardening	7.3.3.17.1	Updates to grid topology to minimize risk of ignition in HFTDs	SH-8	Equipment failure	Vandalism / Theft	2019	<1	N/A	N/A	<1	N/A		WMPMA	
Grid hardening	Grid Design & System Hardening	7.3.3.17.2	Updates to grid topology to minimize risk of ignition in HFTDs	SH-11	Equipment failure	Other contact with object	2019	203	N/A	N/A	55	287		WMPMA	
Grid hardening	Grid Design & System Hardening	7.3.3.17.3	Updates to grid topology to minimize risk of ignition in HFTDs	SH-15	Equipment failure		2019	5	N/A	N/A	0	15		WMPMA	
Asset inspection	Asset Management & Inspections	7.3.4.1	Detailed inspections of distribution electric lines and equipment				NA	N/A	N/A	N/A	N/A	N/A			
Asset inspection	Asset Management & Inspections	7.3.4.2	Detailed inspections of transmission electric lines and equipment				NA	N/A	N/A	N/A	N/A	N/A			
Asset inspection	Asset Management & Inspections	7.3.4.3	Improvement of inspections	IN-8			2021	Enabling	Enabling	Enabling	Enabling	Enabling		WMPMA	
Asset inspection	Asset Management & Inspections	7.3.4.4	Infrared inspections of distribution electric lines and equipment	IN-3	Equipment failure		2017	560	N/A	N/A	535	567		Previously GSRPBA, Currently WMPMA	
Asset inspection	Asset Management & Inspections	7.3.4.5	Infrared inspections of transmission electric lines and equipment	IN-4	Equipment failure		2019	0	N/A	N/A	0	N/A		WMPMA	
Asset inspection	Asset Management & Inspections	7.3.4.5.1	Transmission Conductor & Splice Assessment	IN-9	Equipment failure		2022	0	N/A	N/A	0	N/A		NA	
Asset inspection	Asset Management & Inspections	7.3.4.6	Intrusive pole inspections				NA	N/A	N/A	N/A	N/A	N/A		Base O&M	
Asset inspection	Asset Management & Inspections	7.3.4.7	LiDAR inspections of distribution electric lines and equipment					N/A	N/A	N/A	N/A	N/A			Costs for this initiative are included as part of 7.3.5.7
Asset inspection	Asset Management & Inspections	7.3.4.8	LiDAR inspections of transmission electric lines and equipment					N/A	N/A	N/A	N/A	N/A			Costs for this initiative are included as part of 7.3.5.8
Asset inspection	Asset Management & Inspections	7.3.4.9.1	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	IN-1.1	Equipment failure	Other contact with object	2018	Distribution Ground: 2,668 Distribution Aerial: 856	N/A	N/A	Distribution Ground: 2,712 Distribution Aerial: 921	Distribution Ground: 2,643 Distribution Aerial: 818		Previously FRMMA; GSRPBA; Currently WMPMA	
Asset inspection	Asset Management & Inspections	7.3.4.9.2	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	IN-5	Equipment failure	Other contact with object	2019	See IN-1.1	See IN-1.1	See IN-1.1	See IN-1.1	See IN-1.1		NA	
Asset inspection	Asset Management & Inspections	7.3.4.10	Other discretionary inspection of transmission electric lines and	IN-1.2	Equipment failure	Other contact with object	2018	Transmission Ground: 1,076 Transmission Aerial: 579	N/A	N/A	Transmission Ground: 1,045 Transmission Aerial: 572	Transmission Ground: 1,117 Transmission Aerial: 583		Previously FRMMA; GSRPBA; Currently WMPMA	
Asset inspection	Asset Management & Inspections	7.3.4.11	Patrol inspections of distribution electric lines and equipment				NA	N/A	N/A	N/A	N/A	N/A			
Asset inspection	Asset Management & Inspections	7.3.4.12	Patrol inspections of transmission electric lines and equipment					N/A	N/A	N/A	N/A	N/A			

Actual – 2019

2022 WMP Initiative #	CAPEX ($ thousands) Territory	CAPEX ($ thousands) HFTD	OPEX ($ thousands) Territory	OPEX ($ thousands) HFTD	Line miles treated Territory	Line miles treated HFTD	Alternative units (if used)
7.3.1.1							
7.3.1.2							
7.3.1.3							
7.3.1.4							
7.3.1.5							
7.3.2.1	$ 4,282	$ 4,282	$ 1,244	$ 1,244			352
7.3.2.2.1	$ 3,445	$ 3,445	$ 154	$ 154			60
7.3.2.2.2	$ 970	$ 970	$ 469	$ 469			
7.3.2.3							
7.3.2.3.2			$ 871	$ 871			
7.3.2.4.1							
7.3.2.4.2							
7.3.2.4.3							
7.3.2.4.4							
7.3.2.5	$ 6,487	$ 6,487	$ 1,384	$ 1,384			
7.3.2.6							
7.3.2.6							
7.3.3.1							
7.3.3.2	$ 839	$ 839	$ 420	$ 420			156
7.3.3.3.1	$ 239,911	$ 239,911	$ -	$ -			372
7.3.3.3.2	$ 9,378	$ 9,378					101
7.3.3.3.3			$ -	$ -			
7.3.3.4							
7.3.3.5							
7.3.3.6	$ 359,296						
7.3.3.7	$ 70,298	$ 70,298	$ 258	$ 258			7,765
7.3.3.8.1							
7.3.3.8.2							
7.3.3.9	$ 11,112	$ 11,112	$ -	$ -			71
7.3.3.10							
7.3.3.11							
7.3.3.12			$ -	$ -			
7.3.3.12.2							
7.3.3.13							
7.3.3.14	$ 102,432		$ 1,163				
7.3.3.15			$ -	$ -			
7.3.3.16							
7.3.3.17.1			$ -	$ -			1
7.3.3.17.2			$ -	$ -			
7.3.3.17.3			$ -	$ -			
7.3.4.1			$ 21,681				
7.3.4.2			$ 3,599				
7.3.4.3	$ 13,391	$ 13,391	$ 1,979	$ 1,979			
7.3.4.4			$ -	$ -			4,962
7.3.4.5			$ 1	$ 1			6,700
7.3.4.5.1			$ -	$ -			
7.3.4.6			$ 5,915				147,770
7.3.4.7							
7.3.4.8							
7.3.4.9.1	$ 229,992	$ 229,992	$ 238,512	$ 238,512			499,192
7.3.4.9.2			$ 643	$ 643			449
7.3.4.10	$ 52,990	$ 52,990	$ 58,418	$ 58,418			89,581
7.3.4.11			$ 23,849				
7.3.4.12			$ 2,733				

Actuals – 2020

2022 WMP Initiative #	CAPEX ($ thousands) Territory	CAPEX ($ thousands) HFTD	OPEX ($ thousands) Territory	OPEX ($ thousands) HFTD	Line miles treated Territory	Line miles treated HFTD	Alternative units (if used)
7.3.1.1							
7.3.1.2							
7.3.1.3							
7.3.1.4							
7.3.1.5							
7.3.2.1	$ 7,509	$ 7,509	$ 2,073	$ 2,073			593
7.3.2.2.1	$ 260	$ 260	$ 215	$ 215			60
7.3.2.2.2	$ 94	$ 94	$ 2,235	$ 2,235			
7.3.2.3							
7.3.2.3.2	$ -	$ -	$ 1,636	$ 1,636			
7.3.2.4.1							
7.3.2.4.2							
7.3.2.4.3							
7.3.2.4.4						14000	
7.3.2.5	$ 4,106	$ 4,106	$ 1,658	$ 1,658			
7.3.2.6						14000	
7.3.2.6						14000	
7.3.3.1							
7.3.3.2	$ 9,786	$ 9,786	$ (9)	$ (9)			109
7.3.3.3.1	$ 546,151	$ 546,151	$ -	$ -			982
7.3.3.3.2	$ 9,654	$ 9,654	$ -	$ -			405
7.3.3.3.3	$ -	$ -	$ -	$ -			
7.3.3.4							
7.3.3.5							
7.3.3.6	$ 283,684						
7.3.3.7	$ 8,955	$ 8,955	$ 3,262	$ 3,262			3,025
7.3.3.8.1	$ -	$ -	$ -	$ -			
7.3.3.8.2	$ -	$ -	$ -	$ -			
7.3.3.9	$ 5,867	$ 5,867	$ -	$ -			49
7.3.3.10							
7.3.3.11							
7.3.3.12	$ -	$ -	$ 554	$ 554		9715	
7.3.3.12.2	$ 1,855	$ 1,855	$ -	$ -			
7.3.3.13							
7.3.3.14	$ 96,432		$ 1,399				
7.3.3.15							
7.3.3.16	$ 961	$ 961	$ -	$ -			
7.3.3.17.1	$ -	$ -	$ 125	$ 125			6
7.3.3.17.2	$ -	$ -	$ 74	$ 74		9715	
7.3.3.17.3							
7.3.4.1			$ 26,362				
7.3.4.2			$ 5,957				
7.3.4.3	$ 28,719	$ 28,719	$ 14,972	$ 14,972		9,715	
7.3.4.4	$ -	$ -	$ 791	$ 791		4,416	5,900
7.3.4.5	$ -	$ -	$ 384	$ 384		1,005	
7.3.4.5.1							
7.3.4.6			$ 6,133				146,621
7.3.4.7							
7.3.4.8							
7.3.4.9.1	$ 85,219	$ 85,219	$ 105,553	$ 105,553			367,067
7.3.4.9.2	$ -	$ -	$ 403	$ 403			268
7.3.4.10	$ 35,934	$ 35,934	$ 51,820	$ 51,820			66,942
7.3.4.11			$ 25,218				
7.3.4.12			$ 3,567				

Actuals – 2021

2022 WMP Initiative #	CAPEX ($ thousands) Territory	CAPEX ($ thousands) HFTD	OPEX ($ thousands) Territory	OPEX ($ thousands) HFTD	Line miles treated Territory	Line miles treated HFTD	Alternative units (if used)
7.3.1.1							
7.3.1.2							
7.3.1.3							
7.3.1.4							
7.3.1.5							
7.3.2.1	$ 5,607	$ 5,607	$ 2,023	$ 2,023			406
7.3.2.2.1	$ 8,362	$ 8,362	$ 135	$ 135			130
7.3.2.2.2			$ 2,994	$ 2,994			
7.3.2.3							
7.3.2.3.2			$ 2,755	$ 2,755			
7.3.2.4.1							
7.3.2.4.2							
7.3.2.4.3							
7.3.2.4.4							
7.3.2.5	$ 3,500	$ 3,500	$ 3,014	$ 3,014			2 High Performance Computing Clusters (HPCC)
7.3.2.6							
7.3.2.6							
7.3.3.1							
7.3.3.2	$ 5,153	$ 5,153	$ 14	$ 14			95
7.3.3.3.1	$ 897,600	$ 897,600	$ 545	$ 545			1,504
7.3.3.3.2	$ 21,940	$ 21,940					527
7.3.3.3.3							
7.3.3.4							
7.3.3.5							
7.3.3.6	$ 503,097						
7.3.3.7	$ (479)	$ (479)	$ 36	$ 36			352
7.3.3.8.1							140 Circuits identified for scoping
7.3.3.8.2							
7.3.3.9	$ 2,136	$ 2,136					18
7.3.3.10							
7.3.3.11							
7.3.3.12	$ 92	$ 92					361
7.3.3.12.2	$ 2,707	$ 2,707					1GFN
7.3.3.13							
7.3.3.14	$ 97,069		$ 1,275				
7.3.3.15							52
7.3.3.16	$ 6,586	$ 6,586					6
7.3.3.17.1			$ 946	$ 946			10
7.3.3.17.2	$ 190	$ 190	$ 132	$ 132			2 Projects, 17 Assessments
7.3.3.17.3	$ 602	$ 602					16
7.3.4.1			$ 26,522				
7.3.4.2			$ 5,759				
7.3.4.3	$ 18,586	$ 18,586	$ 3,727	$ 3,727			
7.3.4.4			$ 464	$ 464			4,410
7.3.4.5			$ 94	$ 94			1,046
7.3.4.5.1							
7.3.4.6			$ 5,966				144,122
7.3.4.7							
7.3.4.8							
7.3.4.9.1	$ 82,458	$ 82,458	$ 85,925	$ 85,925			359,947
7.3.4.9.2			$ 149	$ 149			238
7.3.4.10	$ 13,380	$ 13,380	$ 24,802	$ 24,802			41,614
7.3.4.11			$ 27,315				
7.3.4.12			$ 4,561				

Projected – 2022

2022 WMP Initiative #	CAPEX ($ thousands) Territory	CAPEX ($ thousands) HFTD	OPEX ($ thousands) Territory	OPEX ($ thousands) HFTD	Line miles to be treated Territory	Line miles to be treated HFTD	Alternative units (if used)
7.3.1.1							
7.3.1.2							
7.3.1.3							
7.3.1.4							
7.3.1.5							
7.3.2.1	$ 3,021	$ 3,021	$ 3,369	$ 3,369			175
7.3.2.2.1	$ 100	$ 100	$ 299	$ 299			
7.3.2.2.2	$ 128	$ 128	$ 3,906	$ 3,906			20 Additional HD Cameras
7.3.2.3							
7.3.2.3.2			$ 2,873	$ 2,873			
7.3.2.4.1							
7.3.2.4.2							
7.3.2.4.3							
7.3.2.4.4							
7.3.2.5	$ 703	$ 703	$ 3,235	$ 3,235			500 Weather Stations with ML Capability
7.3.2.6							
7.3.2.6							
7.3.3.1							
7.3.3.2	$ 10,193	$ 10,193					125
7.3.3.3.1	$ 719,110	$ 719,110	$ 1,450	$ 1,450			1,250
7.3.3.3.2	$ 16,552	$ 16,552					700
7.3.3.3.3	$ 108	$ 108					115
7.3.3.4							
7.3.3.5							
7.3.3.6	$ 544,812						
7.3.3.7			$ 1,402	$ 1,402			483
7.3.3.8.1							70 Circuits identified for scoping
7.3.3.8.2	$ 5,393	$ 5,393					
7.3.3.9	$ 3,615	$ 3,615					31
7.3.3.10							
7.3.3.11							
7.3.3.12	$ 4,931	$ 4,931	$ 5,815	$ 5,815			1,800
7.3.3.12.2	$ 10,596	$ 10,596					1 Iso Bank
7.3.3.13							
7.3.3.14	$ 98,653		$ 1,482				
7.3.3.15			$ 250	$ 250			21
7.3.3.16	$ 51,960	$ 51,960					13
7.3.3.17.1			$ 1,384	$ 1,384			11
7.3.3.17.2	$ 1,925	$ 1,925	$ 660	$ 660			8 Projects, 13 Assessments
7.3.3.17.3	$ 570	$ 570					25
7.3.4.1							
7.3.4.2							
7.3.4.3	$ 9,504	$ 9,504	$ 3,955	$ 3,955			
7.3.4.4			$ 427	$ 427			4,400
7.3.4.5			$ 209	$ 209			1,000
7.3.4.5.1			$ 1,500	$ 1,500			150 spans w/ Line Vue, 70 splices with X-Ray, 15 Conductor Samples
7.3.4.6			$ 6,952				143,600
7.3.4.7							
7.3.4.8							
7.3.4.9.1	$ 67,995	$ 67,995	$ 78,700	$ 78,700			359,988
7.3.4.9.2			$ 70	$ 70			190
7.3.4.10	$ 21,963	$ 21,963	$ 22,560	$ 22,560			38,000
7.3.4.11							
7.3.4.12							

Projected – 2023

2022 WMP Initiative #	CAPEX ($ thousands) Territory	CAPEX ($ thousands) HFTD	OPEX ($ thousands) Territory	OPEX ($ thousands) HFTD	Line miles to be treated Territory	Line miles to be treated HFTD	Alternative units (if used)
7.3.1.1							
7.3.1.2							
7.3.1.3							
7.3.1.4							
7.3.1.5							
7.3.2.1	$ 1,445	$ 1,445	$ 3,394	$ 3,394			95
7.3.2.2.1			$ 294	$ 294			
7.3.2.2.2	$ 129	$ 129	$ 4,404	$ 4,404			20 Additional HD Cameras
7.3.2.3							
7.3.2.3.2			$ 2,850	$ 2,850			
7.3.2.4.1							
7.3.2.4.2							
7.3.2.4.3							
7.3.2.4.4							
7.3.2.5			$ 2,749	$ 2,749			TBD
7.3.2.6							
7.3.2.6							
7.3.3.1							
7.3.3.2	$ 3,312	$ 3,312	$ 3,523	$ 3,523			114
7.3.3.3.1	$ 765,805	$ 765,805	$ 857	$ 857			1,250
7.3.3.3.2	$ 16,265	$ 16,265					500
7.3.3.3.3	$ 389	$ 389					402
7.3.3.4							
7.3.3.5							
7.3.3.6	$ 544,462						
7.3.3.7			$ 1,662	$ 1,662			574
7.3.3.8.1							TBD
7.3.3.8.2	$ 5,743	$ 5,743					
7.3.3.9	TBD	TBD					TBD
7.3.3.10							
7.3.3.11							
7.3.3.12	$ 7,617	$ 7,617	$ 10,479	$ 10,479			3,587
7.3.3.12.2	$ 23,917	$ 23,917					1 GFN
7.3.3.13							
7.3.3.14	$ 101,248		$ 1,521				
7.3.3.15	$ -	$ -					-
7.3.3.16	$ 42,664	$ 42,664					11
7.3.3.17.1	TBD	TBD					TBD
7.3.3.17.2	$ 1,800	$ 1,800	$ 199	$ 199			TBD
7.3.3.17.3	$ 375	$ 375					7
7.3.4.1							
7.3.4.2							
7.3.4.3	$ 4,700	$ 4,700	$ 3,147	$ 3,147			
7.3.4.4			$ 430	$ 430			4,425
7.3.4.5			$ 219	$ 219			1,000
7.3.4.5.1			$ 1,494	$ 1,494			150 spans w/ Line Vue, 70 splices with X-Ray, 15 Conductor Samples
7.3.4.6			$ 7,144				143,600
7.3.4.7							
7.3.4.8							
7.3.4.9.1	$ 61,872	$ 61,872	$ 78,274	$ 78,274			360,000
7.3.4.9.2			$ 69	$ 69			190
7.3.4.10	$ 11,953	$ 11,953	$ 21,045	$ 21,045			37,995
7.3.4.11							
7.3.4.12							

Table 17: Mitigation Initiative Spend-Up

Metric type	WMP Table # / Category	2022 WMP Initiative #	Initiative activity	2022 WMP ID	Primary driver targeted	Secondary driver targeted	Year initiated	Estimated RSE territory-wide	Estimated RSE in non-HFTD region	Estimated RSE in HFTD Zone 1	Estimated RSE in HFTD Tier 2	Estimated RSE in HFTD Tier 3	If existing: most recent proceeding	If new: memorandum account	Comments
Asset inspection	Asset Management & Inspections	7.3.4.13	Pole loading assessment program to determine safety factor				NA	N/A	N/A	N/A	N/A	N/A		PLP Balancing Account	
Asset inspection	Asset Management & Inspections	7.3.4.14	Quality assurance / quality control of inspections					N/A	N/A	N/A	N/A	N/A			Costs for this initiative are included as part of 7.3.4.9.1 and 7.3.4.10
Asset inspection	Asset Management & Inspections	7.3.4.15	Substation inspections				NA	N/A	N/A	N/A	N/A	N/A		NA	
Vegetation management project	Vegetation Management & Inspections	7.3.5.1	Additional efforts to manage community, and environmental impacts					N/A	N/A	N/A	N/A	N/A			
Vegetation inspection	Vegetation Management & Inspections	7.3.5.2	Detailed inspections and management practices for vegetation clearances around distribution electrical lines and equipment				NA	N/A	N/A	N/A	N/A	N/A		Previously NA, Currently VMBA	
Vegetation inspection	Vegetation Management & Inspections	7.3.5.3	Detailed inspections and management practices for vegetation clearances around transmission electrical lines and equipment				NA	N/A	N/A	N/A	N/A	N/A		Previously NA, Currently VMBA	
Vegetation management project	Vegetation Management & Inspections	7.3.5.4	Emergency response vegetation management due to red flag warning or other urgent weather conditions					N/A	N/A	N/A	N/A	N/A			This activity is not individually tracked. Associated costs and units are captured in VM-2
Vegetation management project	Vegetation Management & Inspections	7.3.5.5.1	Fuel management (including all wood management) and management of "slash" from vegetation management activities	VM-2	Contact with vegetation	Equipment failure	2019	2021	N/A	N/A	2027	2988		Previously WMPMA, Currently VMBA	Cost forecasts also include some transmission poles
Vegetation management project	Vegetation Management & Inspections	7.3.5.5.2	Fuel management (including all wood management) and management of "slash" from vegetation management activities	VM-3	Contact with vegetation		2019	0	N/A	N/A	0	0		Previously FHPMA, Currently VMBA	
Vegetation inspection	Vegetation Management & Inspections	7.3.5.6	Improvement of inspections					N/A	N/A	N/A	N/A	N/A			
Vegetation inspection	Vegetation Management & Inspections	7.3.5.7	Remote sensing inspections of vegetation around distribution electric lines and equipment					N/A	N/A	N/A	N/A	N/A			
Vegetation inspection	Vegetation Management & Inspections	7.3.5.8	Remote sensing inspections of vegetation around transmission electric lines and equipment				2019	N/A	N/A	N/A	N/A	N/A		Previously WMPMA, Currently VMBA	
Vegetation inspection	Vegetation Management & Inspections	7.3.5.9	Other discretionary inspections of vegetation around distribution electric lines and equipment					N/A	N/A	N/A	N/A	N/A			
Vegetation inspection	Vegetation Management & Inspections	7.3.5.10	Other discretionary inspections of vegetation around transmission electric lines and equipment					N/A	N/A	N/A	N/A	N/A			
Vegetation inspection	Vegetation Management & Inspections	7.3.5.11	Patrol inspections of vegetation around distribution electric lines and equipment					N/A	N/A	N/A	N/A	N/A		Previously NA, Currently VMBA	
Vegetation inspection	Vegetation Management & Inspections	7.3.5.12	Patrol inspections of vegetation around transmission electric lines and equipment					N/A	N/A	N/A	N/A	N/A		Previously NA, Currently VMBA	
Vegetation inspection	Vegetation Management & Inspections	7.3.5.13	Quality assurance / quality control of vegetation management	VM-5			2019							Previously WMPMA, Currently VMBA	
Vegetation management project	Vegetation Management & Inspections	7.3.5.14	Recruiting and training of vegetation management personnel					N/A	N/A	N/A	N/A	N/A			Recruiting costs for Vegetation Management activities are captured in general labor.
Vegetation management project	Vegetation Management & Inspections	7.3.5.15	Identification and remediation of "at-risk species"					N/A	N/A	N/A	N/A	N/A			
Vegetation management project	Vegetation Management & Inspections	7.3.5.16.1	Removal and remediation of trees with strike potential to electric lines and equipment	VM-1	Contact with vegetation		2018	2818	N/A	N/A	2944	2548		Previously GSRPBA, Currently VMBA	
Vegetation management project	Vegetation Management & Inspections	7.3.5.16.2	Removal and remediation of trees with strike potential to electric lines and equipment	VM-4	Contact with vegetation		NA	8915	N/A	N/A	9307	8806			
Vegetation inspection	Vegetation Management & Inspections	7.3.5.17	Substation inspection					N/A	N/A	N/A	N/A	N/A			
Vegetation management project	Vegetation Management & Inspections	7.3.5.18	Substation vegetation management					N/A	N/A	N/A	N/A	N/A			Associated costs are captured in 7.3.5.2
Vegetation management project	Vegetation Management & Inspections	7.3.5.19	Vegetation management enterprise system	VM-6			2021	Enabling	Enabling	Enabling	Enabling	Enabling		Previously WMPMA; GSRPBA, Currently VMBA	
Vegetation management project	Vegetation Management & Inspections	7.3.5.20	Vegetation management to achieve clearances around electric lines and equipment		Contact with vegetation		NA	270	N/A	N/A	281	263		Previously FHPMA, Currently VMBA	
Vegetation management project	Vegetation Management & Inspections	7.3.5.21	Vegetation management activities post-fire					N/A	N/A	N/A	N/A	N/A			
Other	Grid Operations & Operating Protocols	7.3.6.1	Automatic recloser operations					N/A	N/A	N/A	CCBB: 1	N/A			
Other	Grid Operations & Operating Protocols	7.3.6.2	Protective equipment and device settings					N/A	N/A	N/A	N/A	N/A		NA	
Other	Grid Operations & Operating Protocols	7.3.6.3	Crew-accompanying ignition prevention and suppression resources and services					N/A	N/A	N/A	N/A	N/A			
Other	Grid Operations & Operating Protocols	7.3.6.4	Personnel work procedures and training in conditions of elevated fire risk					N/A	N/A	N/A	N/A	N/A			
Other	Grid Operations & Operating Protocols	7.3.6.5	Protocols for PSPS re-energization					N/A	N/A	N/A	N/A	N/A			
Other	Grid Operations & Operating Protocols	7.3.6.6	PSPS events and mitigation of PSPS impacts	PSPS-2	PSPS - for sectionalization, etc.		2018	211 Partnership: 35 Rebates: 4 CCBB: 2 CRC/CCV: 1	211 Partnership: 33 Rebates: 4 CCBB: 1 CRC/CCV: 1	211 Partnership: 35 Rebates: 5 CCBB: 2 CRC/CCV: 1	211 Partnership: 38 Rebates: 5 CCBB: 2 CRC/CCV: 1	212 Partnership: 38 Rebates: 3 CCBB: 2		Previously GSRPBA; FRMMA+, WMPMA, Currently VMBA+, WMPMA	
Other	Grid Operations & Operating Protocols	7.3.6.6.1	PSPS Incident Management Team											NA	
Other	Grid Operations & Operating Protocols	7.3.6.6.2.1.2	Customer Resiliency Programs											NA	
Other	Grid Operations & Operating Protocols	7.3.6.6.2.1.3	Customer Resiliency Equipment											NA	
Other	Grid Operations & Operating Protocols	7.3.6.7	Stationed and on-call ignition prevention and suppression resources and services					N/A	N/A	N/A	N/A	N/A			
Other	Data Governance	7.3.7.1	Centralized repository for data	DG-1			2021	Enabling	Enabling	Enabling	Enabling	Enabling		Previously GSRPBA, Currently WMPMA	
Other	Data Governance	7.3.7.2	Collaborative research on utility ignition and/or wildfire					N/A	N/A	N/A	N/A	N/A			
Other	Data Governance	7.3.7.3	Documentation and disclosure of wildfire-related data and algorithms					N/A	N/A	N/A	N/A	N/A			
Other	Data Governance	7.3.7.4	Tracking and analysis of near miss data					N/A	N/A	N/A	N/A	N/A			
Other	Resource Allocation Methodology	7.3.8.1	Allocation methodology development and application					N/A	N/A	N/A	N/A	N/A		Previously FRMMA; WMPMA, Currently WMPMA	
Other	Resource Allocation Methodology	7.3.8.2	Risk reduction scenario development and analysis				2018	N/A	N/A	N/A	N/A	N/A			
Other	Resource Allocation Methodology	7.3.8.3	Risk spend efficiency analysis					N/A	N/A	N/A	N/A	N/A			
Other	Emergency Planning & Preparedness	7.3.9.1	Community outreach and wellness for service restoration	DEP-2	PSPS - for sectionalization, etc.		2018	UAS: 2,119 IMT/ Field Training: 262	UAS: 2,322 IMT/ Field Training: 216	UAS: 2,225 IMT/ Field Training: 263	UAS: 1,872 IMT/ Field Training: 295 Training: 295			WMPMA	
Other	Emergency Planning & Preparedness	7.3.9.2	Community outreach, public awareness, and communications efforts					N/A	N/A	N/A	N/A	N/A			Costs included in 7.3.10.1.2
Other	Emergency Planning & Preparedness	7.3.9.3	Customer support in emergencies					N/A	N/A	N/A	N/A	N/A			Costs included in 7.3.10.1.2
Other	Emergency Planning & Preparedness	7.3.9.4	Disaster and emergency preparedness plan					N/A	N/A	N/A	N/A	N/A			Costs included in 7.3.4.4.1
Other	Emergency Planning & Preparedness	7.3.9.5	Preparedness and planning for service restoration				2018	N/A	N/A	N/A	N/A	N/A		Previously GSRPBA, Currently WMPMA	
Other	Emergency Planning & Preparedness	7.3.9.6	Protocols in place to learn from wildfire events					N/A	N/A	N/A	N/A	N/A			
Other	Stakeholder Cooperation & Community Engagement	7.3.10.1.1	Community engagement	DEP-1.2			2018	Enabling	Enabling	Enabling	Enabling	Enabling		Previously GSRPBA, Currently WMPMA	
Other	Stakeholder Cooperation & Community Engagement	7.3.10.1.2	Community engagement	DEP-1.3			2018	Enabling	Enabling	Enabling	Enabling	Enabling		Previously FRMMA; GSRPBA, Currently WMPMA	
Other	Stakeholder Cooperation & Community Engagement	7.3.10.1.3	Community engagement	DEP-4			2018	N/A	N/A	N/A	N/A	N/A		Previously FRMMA, Currently WMPMA	
Other	Stakeholder Cooperation & Community Engagement	7.3.10.2	Cooperation and best practice sharing with agencies outside CA					N/A	N/A	N/A	N/A	N/A			
Other	Stakeholder Cooperation & Community Engagement	7.3.10.3	Cooperation with suppression agencies	DEP-5			2020	8478	N/A	N/A	6557	9846		WMPMA	
Other	Stakeholder Cooperation & Community Engagement	7.3.10.4	Forest service and fuel reduction cooperation and joint roadmap					N/A	N/A	N/A	N/A	N/A			
Other	Alternative Technologies	7.3.11	Alternative Technology Pilot Programs		Wire-to-wire contact	Equipment failure	2018	9169	N/A	N/A	7059	10121		Previously GSRPBA, Currently WMPMA	Drivers and RSEs reflective of Early Fault Detection only

	CAPEX ($ thousands)		OPEX ($ thousands)		Line miles treated		Alternative units (if used)	CAPEX ($ thousands)		OPEX ($ thousands)		Line miles treated		Alternative units (if used)	CAPEX ($ thousands)		OPEX ($ thousands)		Line miles treated		Alternative units (if used)	CAPEX ($ thousands)		OPEX ($ thousands)		Line miles treated		Alternative units (if used)
	Territory	HFTD	Territory	HFTD	Territory	HFTD		Territory	HFTD	Territory	HFTD	Territory	HFTD		Territory	HFTD	Territory	HFTD	Territory	HFTD		Territory	HFTD	Territory	HFTD	Territory	HFTD	
			2019							2020							2021							2022				
			$ 21,240				189,565			$ 15,135				125,714			$ 3,742				20,066			$ 497				2,000
			$ 5,452	-						$ 5,704	-						$ 4,498	-										
			-	-						-	-						$ 20,589	$ 20,589										
			$ 58,588							$ 25,756	$ 16,432			470k (Trees in HFTD)			$ 24,943	$ 15,914			600k (Trees in HFTD)			$ 23,242	$ 14,828			600k (Trees in HFTD)
			$ 34,355							$ 3,774	$ 1,132			180k (Trees in HFTD)			$ 2,345	$ 1,496			100k (Trees in HFTD)			$ 4,675	$ 2,983			100k (Trees in HFTD)
			$ 1,855	$ 1,855			160,000	$ -	$ -	$ 7,459	$ 7,459			230,000			$ 13,036	$ 13,036			963,100			$ 20,589	$ 20,589			1,706 Exempt Distribution Poles, 116 Non-Exempt Distribution Poles
			$ 4,532	$ 4,532			1570 Circuit Miles	$ -	$ -	$ 4,092	$ 4,092	1227		1700 Circuit Miles			$ 3,180	$ 3,180			1590 Circuit Miles			$ 2,048	$ 2,048			1600 Circuit Miles
																								$ 18,283	$ 18,283			
																	$ 20	$ 20						$ 962	$ 962			
			$ 989	$ 989				$ -	$ -	$ 3,964	$ 3,964	14,000					$ 2,221	$ 2,221						$ 4,159	$ 4,159			8000 Circuit Miles
			$ 8,219	$ 8,219				$ 16,328	$ 16,328	$ 3,056	$ 3,056				$ 11,005	$ 11,005	$ 635	$ 635				$ 6,800	$ 6,800	$ 3,500	$ 3,500		$ 2,203	$ 2,203	$ 3,850	$ 3,850	
			$ 169,223	$ 167,414						$ 226,794	$ 216,015						$ 333,402	$ 213,871						$ 379,242	$ 238,621			$ 397,246	$ 217,454
								$ 917							$ 2,239													
			$ 1,375	$ 1,375				$ -	$ -	$ 111	$ 111						$ 394	$ 394						$ 709	$ 709			$ 738	$ 738
$ 585	$ 585	$ 6,843	$ 6,843	$ 13,092	$ 11,092	54 CRCs; 720 CCBB Batteries; 1041 Rebates	$ 3,285	$ 3,285	$ 25,522	$ 25,522	64 CRCs; 6025 CCBB Batteries; 2427 Rebates	$ 7,560	$ 7,560	$ 28,135	$ 28,135	2,750 CCBB Customers, 4,000 Battery Rebates	$ 22,894	$ 22,894	
			$ 9,774	$ 9,774				$ -	$ -	$ 8,950	$ 8,950				$ 11,257	$ 11,257	$ 14,952	$ 14,952				$ 12,600	$ 12,600	$ 14,950	$ 14,950		$ 4,550	$ 4,550	$ 15,987	$ 15,987	
			$ -	$ -													$ 37	$ 37											
			$ 11	$ 11				$ -	$ -	$ 4	$ 4						$ 4,148	$ 4,148						$ 2,595	$ 2,595			$ 2,000	$ 2,000
$ 1,181	$ 1,181	$ -	$ -				$ 6,796	$ 6,796	$ -	$ -				$ 9,641	$ 9,641						$ 16,687	$ 16,687	$ 4,132	$ 4,132		$ 8,215	$ 8,215	$ 5,440	$ 5,440	
			$ 1,483	$ 1,483				$ -	$ -	$ 414	$ 414			44 SAIS Operators Trained			$ 377	$ 377			44 SAIS Operators Trained			$ 2,777	$ 2,777			44 SAIS Operators Trained	$ 1,842	$ 1,842	44 SAIS Operators Trained
			$ 4,558	$ 4,536				$ -	$ -	$ 5,490	$ 5,490	14,000					$ 9,260	$ 9,260						$ 11,443	$ 11,443			$ 11,489	$ 11,489
			$ (651)	$ (651)				$ -	$ -	$ -	$ -						$ 856	$ 856						$ 4,038	$ 4,038			$ 6,293	$ 6,293
			$ -	$ -				$ -	$ -	$ 2,318	$ 2,318						$ 17,545	$ 17,545			3 MEGS			$ 18,000	$ 18,000			$ 17,707	$ 17,707
			$ 1	$ 1				$ -	$ -	$ 319	$ 319	14000			$ 2,379	$ 2,379	$ 2	$ 2				$ 6,985	$ 6,985						