

March 2, 2020

Via Email Only

Caroline Thomas Jacobs (caroline.thomasjacobs@cpuc.ca.gov)
Director-Wildfire Safety Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-32142

Re: WSD-001 Data Request

Dear Ms. Jacobs:

SCE is hereby submitting its responses to the data request submitted by the Wildfire Safety Division (WSD) on February 25, 2020. Along with its responses, SCE is submitting a revised Wildfire Mitigation Plan (WMP) which includes changes pursuant to the data request as well the guidance submitted by WSD on February 20, 2020. SCE's submission will include clean and track changes versions of the WMP, clean and highlighted versions of tables 1-31, a table summarizing the revisions, and supporting documents and files.

SCE hopes to discuss its responses with the WSD during its March 4, 2020 weekly call.

Please let me know if you have any questions.

Very truly yours,

/s/ Gary Y Chen

Gary Y. Chen

/gyc

cc: wildfiresafetydivision@cpuc.ca.gov
Melissa K. Semcer, Program Manager-CPUC Wildfire Safety Division
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Summary of SCE's 2020 Wildfire Mitigation Plan (WMP) Changes

The following list of changes does not include minor edits made due to formatting changes and typographical, spelling, or grammatical errors.

Change #	Section/Table #	Sub-Section/Cell	Description of Changes	Item Index If Data Request Related
1	Table of Contents		Combined table of contents for each chapter into a single Table of Contents	
2	1		Changed Table 1-1 to reflect the primary individuals responsible for each component of the WMP	SCE-43879-L -93
3	1		Changed SH-3 "WCCP Fire Resistant Poles" to "Fire Resistant Poles" in Table SCE 1-1	
4	3.1		Updated narrative to clarify information provided in Section 3.1 and Table 10	SCE-43879-D-61
5	4.3	4.3.3	Deleted duplicative sentence	
6	5.1		Added headers to identify and clarify SCE's response to the requested descriptions for A to D	SCE-43879-F -95
7	5.1	5.1.1 to 5.1.10	Added narrative and tables to provide additional description of wildfire mitigation strategy and activities correlated with time periods 1 to 4 under 5.1	SCE-43879-F -95
8	5.1	5.1.9	Changed number of employees trained to reflect updated information	
9	5.1		Added narrative to provide additional description on challenges associated with limited resources	SCE-43879-F -95
10	5.1	5.1.11	Added narrative and tables to provide additional description of new technologies and innovations	SCE-43879-F -95
11	5.1		Changed SH-3 "WCCP Fire Resistant Poles" to "Fire Resistant Poles" in Table SCE 5-1	
12	5.2	5.2.3	Spelled out "software as a service" for SaaS	
13	5.2.1		Added narrative provide additional detail of the monitoring and quality assurance program for line/equipment inspections	SCE-43879-L -94
14	5.3.2		Added the word "awareness" in the Program Overview paragraph	
15	5.3.2		Clarified first sentence in the narrative for Situational Awareness Long-Term Strategy	
16	5.3.3	5.3.3.6.1	Added sentence to clarify 2020 goal	
17	5.3.3	5.3.3.6.2	Added "(SH-3)" to Deteriorated Pole Program and reference to 5.3.3.6.2	
18	5.3.4	5.3.4.2	Changed number of inspections completed to reflect updated information	
19	5.3.4	5.3.4.10	Updated narrative to reflect number of inspections completed	
20	5.3.5	5.3.5.5.1	Changed number of pole brushings to reflect updated information	
21	5.3.5	5.3.5.2 5.3.5.3	Changed narrative for clarification on vegetation management inventory	
22	5.3.5	5.3.5.8	Changed number of circuit miles performed by LiDAR to reflect updated information	
23	5.3.5	5.3.5.19	Updated narrative to clarify digital tools used for Vegetation Management	
24	5.3.6	5.3.6.5.6	Updated narrative to clarify social platform outreach	
25	5.3.6	5.3.6.7	Updated Table SCE 5-10 for De-Energization Notification Requirements	

Change #	Section/Table #	Sub-Section/Cell	Description of Changes	Item Index If Data Request Related
26	5.3.8	5.3.8.1	Added table to narrative to provide additional description of activities correlated with the requested time frames	SCE-43879-F -95
27	5.3.8	5.3.8.2	Added table to narrative to provide additional description of activities correlated with the requested time frames	SCE-43879-F -95
28	5.3.8	5.3.8.3	Added table to narrative to provide additional description of activities correlated with the requested time frames	SCE-43879-F -95
29	5.3.8	5.3.8.4	Added table to narrative to provide additional description of activities correlated with the requested time frames	SCE-43879-F -95
30	5.3.9		Updated narrative to reflect number of employees trained to-date	
31	5.6.2	5.6.2.4	Added Medical Facilities to Hospitals	
32	5.3.10	5.3.10.4	Added narrative to provide examples of interactions and agreements with USFS	SCE-43879-E-63
33	Narrative Appendix	Appendix B, C, D	Inserted Excel Tables 1-31 as Appendix B. This effectively shifted previous Appendix B - WMP GIS Dashboard Descriptions to become Appendix C, and previous Appendix C - WMP GIS Dataset Descriptions to become Appendix D.	
34	Tables	N/A	Added a cover page and this change log. Following guidance from the WSD, SCE has highlighted cells with modified data in yellow and highlighted cells with new data in green relative to the version submitted on February 7, 2020.	
35	All Tables	Various	Updated print areas to repeat header rows for all tables and fixed issues related to cells with text appearing to be cutoff	
36	Table 1	I5:I22	Updated comments column	
37	Table 1	J44:J46	Updated comments column	
38	Table 4	C3:F60	Inserted new columns "2019 actual performance", "2019 goal", and "Percentage of goal reached" for all metrics on Table 4	
39	Table 10	H5 & H6	Corrected units column description for Row 4 "95th percentile wind conditions" and Row 5 "99th percentile wind conditions". Note: SCE's FPI calculation capability was initiated in late 2018 and was not implemented across SCE's HFRA until March 2019, and therefore the information in Table 10 for 2019 uses FPI data from March to December 2019	SCE-43879-D-61
40	Table 22	H3:K8 & Q3:Q8 H40:K74 & Q40:Q74	Updated Table 22 "Ignition probability drivers targeted", "Risk reduction", "Risk spend efficiency", and "Other risk drivers addressed" columns for all time periods to remove references to other tables/initiatives	SCE-43879-D-62
41	Table 22	G6 & G7	Corrected "1. Advanced weather monitoring and weather stations (SA-1)" "Spend/treated line mile" calculation for 2021 and 2022	
42	Table 22	C20 & E20 & G20	Corrected "2.2. Continuous monitoring sensors: Early Fault Detection (EFD) evaluation (AT-7)" 2020-2022 "line miles to be treated" sum calculation and updated the "spend/treated line mile" column	

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43	Table 22	F26 & G26	Corrected "2.3. Continuous monitoring sensors: transmission open phase detection (SH-8)" 2020-2022 plan total "Total per initiative spend" sum calculation and updated the "spend/ treated line mile" column	
44	Table 22	C44 & E44 & G44	Corrected "4.2. Forecast of a fire risk index, fire potential index, or similar: fuel sampling program (SA-5)" 2020-2022 plan total "Total per initiative spend" sum calculation and updated the "spend/ treated line mile" column	
45	Table 22	C80 & D80	Corrected "7. Develop Asset & Reliability & Risk Analytics Capability (RA-1, SA-4)" 2020-2022 "total per initiative spend" sum calculation	
46	Table 23	G5	Corrected "1. Capacitor maintenance and replacement program" 2020 "Spend/ treated line mile" calculation	
47	Table 23	F8	Corrected "1. Capacitor maintenance and replacement program" 2020-2022 plan total "Line miles to be treated" calculation	
48	Table 23	F20	Corrected "2.2. Circuit breaker maintenance and installation to de-energize lines upon detecting a fault: alternative technology evaluations - meter alarm down energized conductor (MADEC)" 2020-2022 "line miles to be treated" sum calculation	
49	Table 23	J63	Updated the RSE for "3.1. Covered conductor installation: covered conductor (SH-1)" 2019 plan row based off updated scope	SCE-43879-G-68
50	Table 23	H81:K86	Updated "4. Covered conductor maintenance" "Ignition probability drivers targeted", "Risk reduction", "Risk-spend efficiency", and "Other risk drivers addressed" columns to be consistent with comment in comments column	
51	Table 23	H87:K92	Updated "5. Crossarm maintenance, repair, and replacement" "Ignition probability drivers targeted", "Risk reduction", "Risk-spend efficiency", "Other risk drivers addressed", and "Comments" columns to remove references to other tables/initiatives	
52	Table 23	G95:G97	Corrected "6.1. Distribution pole replacement and reinforcement, including with composite poles: composite poles and crossarms (SH-3)" 2020, 2021, & 2022 "Spend/ treated line mile" calculations	
53	Table 23	H119:K122	Updated "8.1. Grid topology improvements to mitigate or reduce PSPS events: PSPS driven grid hardening work (SH-7)" "Ignition probability drivers targeted", "Risk reduction", "Risk-spend efficiency", "Other risk drivers addressed", and "Comments" columns to remove references to other tables/initiatives	
54	Table 23	J129	Updated the RSE for "9. Installation of system automation equipment: installation of system automation equipment - remote controlled automatic reclosers settings update (SH-5)" 2019 plan row based off updated scope	SCE-43879-G-68

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55	Table 23	F134 & G134	Corrected "9. Installation of system automation equipment: installation of system automation equipment - remote controlled automatic reclosers settings update (SH-5)" 2020-2022 "line miles to be treated" sum calculation and updated the "spend/ treated line mile" column	
56	Table 23	H153:K164 & Q153:Q164	Updated "12.1. Other corrective action: distribution remediations (SH-12.1)" and "12.2. Other corrective action: transmission remediations (SH-12.2)" "Ignition probability drivers targeted", "Risk reduction", "Risk-spend efficiency", "Other risk drivers addressed", and "Comments" columns to remove references to other tables/initiatives	
57	Table 23	F155:G158	Corrected "12.1. Other corrective action: distribution remediations (SH-12.1)" number of notifications ("line miles to be treated" column) and the "spend/ treated line mile" column for 2020-2022 Note: Added in remediations that were identified in 2019 that will be remediated in 2020-2022 based on the remediation prioritization schedule	
58	Table 24	F11 & G11 F14 & G14	Corrected 2020 number of inspections for "2. Detailed inspections of Transmission electric lines and equipment" and updated the "spend/ treated line mile" column. Also updated the 2020-2022 summary calculations accordingly.	
59	Table 24	I27:J32	Updated "5. Infrared inspections of transmission electric lines and equipment: infrared inspection, corona scanning, and high definition imagery of energized overhead transmission facilities and equipment (IN-4)" baseline transmission task, and therefore risk reduction & RSE changed	
60	Table 24	F80 & G80	Corrected "9.2.2. Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations: UAS operations training (OP-3)" 2020-2022 "line miles to be treated" sum calculation and updated the "spend/ treated line mile" column	
61	Table 24	I81:J86	Updated "10.1. Other discretionary inspection of transmission electric lines and equipment, beyond inspections mandated by rules and regulations: transmission risk-informed inspections in HFRA (IN-1.2)" baseline transmission task, and therefore risk reduction & RSE changed	
62	Table 24	F83 & G83 F86 & G86	Corrected 2020 number of inspections for "10.1. Other discretionary inspection of transmission electric lines and equipment, beyond inspections mandated by rules and regulations: transmission risk-informed inspections in HFRA (IN-1.2)" and updated the "spend/ treated line mile" column. Also updated the 2020-2022 summary calculations accordingly.	

Change #	Section/Table #	Sub-Section/Cell	Description of Changes	Item Index If Data Request Related
63	Table 24	I87:J88	Updated "10.2. Other discretionary inspection of transmission electric lines and equipment, beyond inspections mandated by rules and regulations: aerial inspections - transmission (IN-6.2)" baseline transmission task, and therefore risk reduction & RSE changed	
64	Table 24	I89:J92	Updated "10.2. Other discretionary inspection of transmission electric lines and equipment, beyond inspections mandated by rules and regulations: aerial inspections - transmission (IN-6.2)" baseline transmission task, and therefore risk reduction & RSE changed for 2020-2022	
65	Table 24	F118	Corrected 2019 actual number of structures for "14. Quality assurance / quality control of inspections: Quality Oversight / Quality Control"	
66	Table 25	F20 & G20	Corrected "3. Detailed inspections of vegetation around transmission electric lines and equipment" "line miles to be treated" sum calculation and updated the "spend/ treated line mile" column	
67	Table 25	F33:G34	Corrected 2019 plan and 2019 actual number of poles brushed and the "spend/ treated line mile" column	
68	Table 25	J33 & J34	Updated the RSE for "5.1. Fuel management and reduction of "slash" from vegetation management activities: expanded pole brushing (VM-2)" 2019 plan and 2019 actual rows based off updated scope	
69	Table 25	F44 & G44	Corrected "5.2. Fuel management and reduction of "slash" from vegetation management activities: expanded clearances for legacy facilities (VM-3)" 2020-2022 "line miles to be treated" sum calculation and updated the "spend/ treated line mile" column	
70	Table 25	F111 & G111	Corrected 2019 plan number of Hazard Tree Assessments and updated the "spend/ treated line mile" column	
71	Table 25	I112 & J112	Updated the Risk Reduction and RSE for "16.1. Removal and remediation of trees with strike potential to electric lines and equipment: hazard tree (VM-1)" 2019 actual row based off updated scope	
72	Table 26	J33:J38	Updated the RSE for "5. PSPS events and mitigation of PSPS impacts" 2019 plan through the 2020-2022 plan total rows based off updated spend	
73	Table 26	F68	Corrected "5.5. PSPS events and mitigation of PSPS impacts: independent living centers partnership (PSPS-6)" 2020-2022 total plan row for the "Line miles to be treated" to align with 2020-2022 "Line miles to be treated"	
74	Table 27	C3:E8	Provided total spend (including breakdown between capital and O&M) for 2019 plan - 2020-2022 plan total for "1. Centralized repository for data" and updated the comments column accordingly	SCE-43879-K-58
75	Table 29	C3:Q8	Combined Row 1 "1. Adequate and trained workforce for service restoration (DEP-2)" with Row 8 "8. Adequate and trained workforce for service restoration" and removed the old Row 8 as it was duplicative	

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76	Table 31a	D4:L24	Updated ignition data on Table 31a based on updated risk analysis discussed in Tables 22-25 above	
77	Table 31a	All	Updated Tables 31a cell formatting so that "-", which is the equivalent of a zero, shows as "0"	SCE-43879-G-67
78	Table 31b	All	Updated Tables 31b cell formatting so that "-", which is the equivalent of a zero, shows as "0"	SCE-43879-G-67