SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL® Company

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Managing Director, State Regulatory Operations

October 30, 2020

ADVICE 4327-E
(U 338-E)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

SUBJECT: Southern California Edison Company's Quarterly Advice Letter Pursuant to Assembly Bill 1054 Regarding the Implementation of Its Approved Wildfire Mitigation Plan and Its Safety Recommendations

Southern California Edison Company (SCE) hereby submits this Tier 1 Advice Letter (AL) detailing the implementation of its approved 2020-2022 Wildfire Mitigation Plan (WMP),[1] recommendations of the most recent safety culture assessment, a statement of the recommendations of its board of directors' safety committee[2] (Committee) meetings that occurred during the third quarter of 2020, and a summary of the implementation of Committee recommendations during the second quarter of 2020.[3]

PURPOSE

The purpose of this advice letter is to comply with the provisions of Public Utilities Code (PUC) Section 8389(e)(7), established by California Assembly Bill (AB) 1054.

BACKGROUND

AB 1054 was signed into law by Governor Newsom on July 12, 2019. Section 8389(e)(7), which was added to the PUC by AB 1054, reads:

> The executive director of the commission shall issue a safety certification to an electrical corporation if the electrical corporation provides documentation of the following . . . The electrical corporation is implementing its approved wildfire mitigation plan. The electrical corporation shall file a tier 1 advice letter on a quarterly basis that details the implementation of both its

1 CPUC WMP approval statement available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K129/340129782.PDF.
2 SCE's board of directors' safety committee is known as the Safety and Operations Committee of the Board of Directors and referred to herein as the "Committee."
3 Advice 4266-E.

approved wildfire mitigation plan and recommendations of the most recent safety culture assessment, and a statement of the recommendations of the board of directors safety committee meetings that occurred during the quarter. The advice letter shall also summarize the implementation of the safety committee recommendations from the electrical corporation's previous advice letter filing. If the division has reason to doubt the veracity of the statements contained in the advice letter filing, it shall perform an audit of the issue of concern.

SCE provides the required information as indicated below:

(1) **Implementation of Wildfire Mitigation Plan**

On February 7, 2020, SCE submitted its second comprehensive WMP covering the years 2020 through 2022 and building on its 2019 WMP, including successes and lessons learned. After an extensive review process that included discovery, workshops, and comments, the CPUC approved SCE's 2020-2022 WMP on June 11, 2020.[4]

In 2020, SCE is tracking 69 specific wildfire-related programs and activities included in its 2020-2022 WMP. As in SCE's 2019 WMP, the 2020-2022 plan includes wildfire mitigation activities such as infrastructure hardening, vegetation management, detailed inspections and remediations, and situational awareness. SCE's WMP also emphasizes Public Safety Power Shutoff (PSPS) resilience and community engagement, particularly for under-represented groups and access and functional needs customers. SCE's 2020-2022 plan increases the use of data, advanced risk analytics and innovative technologies to help the company prioritize the activities with the greatest potential to mitigate wildfire risks and improve public safety.

In Attachment A, SCE presents detailed information about the implementation status of meeting WMP 2020 Program Targets for each of these wildfire-related mitigation activities and programs. As referenced in Attachment A, SCE is currently substantially on track or has met the majority of 2020 goals listed in its 2020-2022 WMP.

SCE remains cautiously optimistic that it will be able to meet the year-end program targets in most behind-plan activities but notes that the targets for three activities, SH-10 (Tree Attachment Remediations) and SH 12.1 and 12.2 (Distribution Inspection-driven Remediations and Transmission Inspection-driven Remediations) are at risk. COVID-19-related restrictions have had an impact on the implementation plans for a few WMP activities and, in recent months, fires and the associated diversion of crews, poor air quality, and US Forest Service

[4] CPUC WMP approval statement available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K129/340129782.PDF.

work stoppages as well as heat waves have impeded work in affected areas. Attachment A (Appendix) provides more details on Behind Plan activities including plans to identify and prioritize pending activities during the remainder of the year.

(2) **Implementation of Most Recent Safety Culture Assessment**

SCE has not yet undergone a CPUC-led safety culture assessment pursuant to PUC Section 8389(d)(4). Notwithstanding this, safety is the first of SCE's core values and this is demonstrated through the company's commitment to creating and maintaining a safe environment for employees, contractors, and the public. SCE continues to improve its safety culture via meetings, trainings, corporate messaging and the incorporation of feedback from all levels of the organization.

The Wildfire Safety Division ("WSD") is currently in the process of developing an annual Safety Culture Assessment Process Proposal with plans to conduct its first assessment for individual electrical corporations in the summer of 2021. SCE looks forward to working with WSD and other interested stakeholders in 2021 to review its safety culture and build upon existing efforts to strengthen it.

(3) **Recommendations of Safety and Operations Committee**

The Committee had a single meeting during the third quarter of 2020 (on August 26, 2020). During this meeting, the Committee focused on wildfire and safety issues in the following categories: Wildfire Safety and Employee, Contractor and Public Safety. Each of these areas is separately addressed below.

Wildfire Safety

Discussions at the third quarter meeting covered an overview of the current fire season and ignition data, the status of the WMP progress to date, asset data management, and the plan to address identified WMP deficiencies as identified by WSD.

Regarding the status of the current fire season and the WMP, topics included the impact of sectionalization in reducing customer impacts of the Public Safety Power Shutoff events, ignition trends year-to-date as compared to 2019 ignitions, and the analysis of mitigations in the WMP that may have prevented ignitions. The progress on the WMP and areas where plans are being implemented to meet targets, including on transmission inspections, was also covered. The Committee was also made aware of the stand down of a helicopter contractor due to a fatality outside of SCE's service area.

Management also reported on ongoing asset data management process enhancements. The Committee and management discussed various factors regarding asset data management, including the structure of corporate and

business unit data governance and identification of risks related to asset data management.

A summary of SCE's responses to Class A deficiencies as identified by WSD and the plan for SCE's response to Class B deficiencies was provided to the Committee. Management discussed the scope and timing of SCE's long-term plan for wildfire mitigation in detail, including its alignment with WSD's maturity model.

Employee, Contractor and Public Safety

The Committee concentrated on worker and contractor safety at its third quarter meeting, discussing leading indicators for safety performance, worker safety and the contractor safety program.

Management reported on SCE's safety performance including the serious injuries and fatalities and Days Away, Restricted or Transferred ("DART") rates and performance year-to-date of those factors as compared to 2019.

Management and the Committee discussed serious injury leading indicators and potential correlation of serious and/or fatal injuries to the districts targeted for reduction in DARTs. Management also reported on employee safety performance including impacts of teleworking on the DART rate. Management noted that while the DART rate of field workers had declined year-to-date in comparison to 2019, the serious injuries have not decreased.

The Committee and management also discussed key drivers of contractor safety performance. Management provided an overview of the contractor safety program, the gating process for prequalification and the role of the business unit, supply management and the safety organization in contractor management. Management also noted the potential impact of independent ratings of contractor safety combined with SCE's own assessment of performance on the allowed scope of work for such contractors. The Committee and management discussed aspects of the contractor safety program, including various factors that contribute to contractor management and oversight.

Committee Recommendations/Management Responses

The Committee made the following recommendation(s) and request(s) during its third quarter meeting:

1. The Committee recommended that management benchmark the use of leading indicators and management practices for contractor safety performance and provide a report in a future meeting regarding any variances with current practices.

2. The Committee asked management to follow up with a deep dive on the Safety Culture Assessment survey results of the districts targeted for further work on reducing DARTs; specifically looking at areas of opportunity for this group, and include similar analysis for locations where safety performance is high.

In response to the Committee's recommendations in prior meetings, management provided the following responses at the third quarter meeting:

1. In addition to the detailed plan on location-specific DART safety action plans provided at the June 26th meeting, management discussed potential correlation of serious and/or fatal injuries to the seven target districts for DART improvement during the report on Safety and Operations Metrics.
2. Management provided an update on the development of the long term plan for wildfire mitigation, during the update on the WMP. An overview of the contractor safety program was provided during the Worker Safety Update Report. In addition, a report on Contractor Management Practices is scheduled to be provided at the October 21st meeting.

The Committee has two regular fourth quarter meetings on October 21, 2020 and December 9, 2020 and additional meetings will be scheduled as appropriate.

No cost information is required for this AL.

This AL will not increase any rate or charge, cause the withdrawal of service, or conflict with any other schedule or rule.

TIER DESIGNATION

Pursuant to General Order (GO) 96-B, Energy Industry Rule 5.1, this AL is submitted with a Tier 1 designation.

EFFECTIVE DATE

SCE respectfully requests that this AL become effective October 30, 2020, which is the same date as submitted.

NOTICE

Anyone wishing to protest this AL may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice letter. Protests should be submitted to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, California 94102
E-mail: EDTariffUnit@cpuc.ca.gov

Copies should also be mailed to the attention of the Director, Energy Division, Room 4004 (same address above).

In addition, protests and all other correspondence regarding this AL should also be sent by letter and transmitted via facsimile or electronically to the attention of:

Gary A. Stern, Ph.D.
Managing Director, State Regulatory Operations
Southern California Edison Company
8631 Rush Street
Rosemead, California 91770
Telephone (626) 302-9645
Facsimile: (626) 302-6396
E-mail: AdviceTariffManager@sce.com

Diana S. Gallegos
Senior Advisor, State Regulatory Affairs
c/o Karyn Gansecki
Southern California Edison Company
601 Van Ness Avenue, Suite 2030
San Francisco, California 94102
Facsimile: (415) 929-5544
E-mail: Karyn.Gansecki@sce.com

There are no restrictions on who may submit a protest, but the protest shall set forth specifically the grounds upon which it is based and must be received by the deadline shown above.

In accordance with General Rule 4 of GO 96-B, SCE is serving copies of this AL to the interested parties shown on the attached GO 96-B, R.18-10-007, R.18-12-005, and A.18-09-002 service lists. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-3719. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Further, in accordance with PUC Section 491, notice to the public is hereby given by submitting and keeping this AL at SCE's corporate headquarters. To view other SCE advice letters submitted with the Commission, log on to SCE's web site at https://www.sce.com/wps/portal/home/regulatory/advice-letters.

For questions, please contact Kavita Srinivasan at (626) 302-3709 or by electronic mail at kavita.srinivasan@sce.com.

Southern California Edison Company

/s/ Gary A. Stern
Gary A. Stern, Ph.D.

GAS:ks:cm
Enclosures

California Public Utilities Commission

ADVICE LETTER SUMMARY

ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.:

Utility type:

☐ ELC ☐ GAS ☐ WATER

☐ PLC ☐ HEAT

Contact Person:
Phone #:
E-mail:
E-mail Disposition Notice to:

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #:

Tier Designation:

Subject of AL:

Keywords (choose from CPUC listing):

AL Type: ☐ Monthly ☐ Quarterly ☐ Annual ☐ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL:

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested? ☐ Yes ☐ No

If yes, specification of confidential information:
Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? ☐ Yes ☐ No

Requested effective date:

No. of tariff sheets:

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed[1]:

Pending advice letters that revise the same tariff sheets:

[1]Discuss in AL if more space is needed.

Clear Form

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division Attention: Tariff Unit 505 Van Ness Avenue San Francisco, CA 94102 Email: EDTariffUnit@cpuc.ca.gov	Name: Title: Utility Name: Address: City: State: District of Columbia Zip: Telephone (xxx) xxx-xxxx: Facsimile (xxx) xxx-xxxx: Email:
	Name: Title: Utility Name: Address: City: State: District of Columbia Zip: Telephone (xxx) xxx-xxxx: Facsimile (xxx) xxx-xxxx: Email:

Clear Form

ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtailable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	

Clear Form

Attachment A

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

PSPS

- PSPS-1: De-Energization Notifications
  - PSPS-1.1: Notifications to public safety agencies and local gov't
  - PSPS-1.2: Notifications to CalOES via State warning system
  - PSPS-1.3: Notifications to the CPUC
  - PSPS-1.4: Enhance Emergency Outage Notification System
- PSPS-2: Have 23 available Community Resource Centers
- PSPS-3: Develop a customer resiliency equipment incentive pilot program
- PSPS-4: Income Qualified Critical Care (IQCC) Customer Battery Backup Incentive Program
- PSPS-5: Support MICOP partnership
- PSPS-6: Support Independent Living Centers Partnership
- PSPS-7: Have 5 available Community Crew Vehicles
- PSPS-8: Assess microgrid resiliency projects

Risk Analysis

- RA-1: Implement Wildfire Risk Reduction Model (WRRM) module of Technosylva

Emergency Preparedness

- DEP-1: Customer Education and Engagement
  - DEP-1.1: Send ~915K /~3.2M letters to customers in HFRA / non-HFRA
  - DEP-1.2: Host 8-12 community meetings
  - DEP-1.3: Conduct marketing campaign (reach 5M cust.)
- DEP-2: Hold internal training on de-energization protocols, determine staffing needs, and fill positions
- DEP-3: Participate in a multi-channel, multi-lingual campaign to provide information on wildfire mitigations*
- DEP-4: Develop a measure to track customer awareness of, preparedness for, and satisfaction with outage experiences

Vegetation Management

- VM-1: Hazard Tree Management Program. Assess 75,000 trees
- VM-2:. Perform brush clearance of 200,000 poles
- VM-3: Expand clearances for legacy facilities
- VM-4: Perform annual DRI inspection scope and compete mitigations according to guidelines
- VM-5: Perform 3,000 risk-based quality control vegetation management inspections

System Hardening

- SH-1: Install 700 miles of covered conductor in HFRA
- SH-2: Refine undergrounding overhead conductor methodology
- SH-3: Replace 5,200 poles with fire resistant poles
- SH-4: Install/replace fusing at 3,025 locations
- SH-5: Install 45 RARs/RCSs
- SH-6: Circuit Breaker Relay Hardware for Fast Curve
- SH-7: PSPS-Driven Grid Hardening Work
- SH-8: Deploy Transmission Open Phase Detection on 6 additional circuits
- SH-9: Transmission Overhead Standards (TOH) Review
- SH-10: Remediate 325 tree attachments
- SH-11: Legacy Facilities
- SH-12: Remediate all notifications with ignition risk, to be past due compliant by year-end
  - SH-12.1: Distribution
  - SH-12.2: Transmission
  - SH-12.3: Generation

Operational Practices

- OP-1: Review and update Annual System Operating Bulletin 322
- OP-2: Hire additional staff for Wildfire Infrastructure Protection Team
- OP-3: Increase the number of UAS operators by an additional 50 crews

Alternative Technologies

- AT-1: Meter Alarming for Downed Energized Conductor
- AT-2.1: Evaluate performance of Distribution Fault Anticipation technology
- AT-2.2: Conduct Extended Visual Line of Sight demonstration UAS flights
- AT-3: Alternative Technology Evaluations
  - AT-3.1: Initiate design and equipment order for a Ground Fault Neutralizer
  - AT-3.2: Initiate design to convert a substation to resonant grounding
  - AT-3.3: Install one Rapid Earth Fault Current Limiter - Isolation Transformer
  - AT-3.4: Complete Distribution Open Phase Detection pilot
- AT-4: Alternative Technology Implementation – Vibration Dampers
- AT-5: Asset Defect Detection Using Machine Learning Object Detection
- AT-6: Assessment of Partial Discharge for Transmission Facilities
- AT-7: Early Fault Detection (EFD) Evaluation
- AT-8: High Impedance Relay Evaluations

Situational Awareness

- SA-1: Install 375 Weather Stations
- SA-2: Fire Potential Index (FPI) Phase II. Refine current FPI
- SA-3: Complete installation of two High-Performance Computer Clusters
- SA-4: Implement FireCast and FireSim modules of Technosylva
- SA-5: Perform fuel sampling in HFRA
- SA-6: Map surface and canopy fuels across HFRA
- SA-7: Initiate procurement of remote sensing technology
- SA-8: Implement fire science enhancement initiatives

Inspections

- IN-1: Ground Inspections*
  - IN-1.1: Inspect 105,000 distribution structures in HFRA
  - IN-1.2: Inspect 22,500 transmission structures in HFRA
- IN-2: Perform quality review on 15,000 transmission, distribution, and generation structures in HFRA
- IN-3: Infrared Inspection of 50% of distribution circuits in HFRA
- IN-4: Infrared Inspection, Corona Scanning, and High Definition imagery of 1,000 transmission circuit miles in HFRA
- IN-5: Inspect 200 generation assets
- IN-6: Aerial Inspections
  - IN-6.1: Inspect 165,000 distribution structures in HFRA
  - IN-6.2: Inspect 33,500 transmission structures in HFRA
- IN-7: Failure Modes and Effects Analysis (FMEA)

* The Change Report filed in September 2020 describes that SCE has ended its statewide campaign (DEP-3) and that SCE plans to inspect (IN-1) ~165,000 distribution and ~33,500 transmission structures in HFRA in 2020.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

PSPS Activities

Public Safety Agencies and Local Govt

De-Energization Notifications (PSPS-1.1)

Program Target: Notify applicable public safety agencies and local governments of possible de-energization

Status Update: Through the end of September the PSPS Incident Management Team (IMT) was remotely activated for four events. Notifications were sent out to appropriate stakeholders in a timely manner during each event.

Cal OES

De-Energization Notifications (PSPS-1.2)

Program Target: Notify Cal OES through the State Warning Center of possible de-energization

Status Update: Through the end of September the PSPS Incident Management Team (IMT) was remotely activated for four events. Notifications were sent out to appropriate stakeholders in a timely manner during each event.

CPUC

De-Energization Notifications (PSPS-1.3)

Program Target: Notify the CPUC of possible de-energization

Status Update: Through the end of September the PSPS Incident Management Team (IMT) was remotely activated for four events. Notifications were sent out to appropriate stakeholders in a timely manner during each event.

Enhance EONS

Enhance Emergency Outage Notification System (PSPS-1.4)

Program Target: Enhance Emergency Outage Notification System (EONS) to include Zip Code level alerting to include in-language notifications to align with its existing notification abilities for SCE customers

Status Update: Zip code level and in-language notification enhancements (in Spanish, Mandarin, Cantonese, Vietnamese, Korean, Tagalog) have been implemented and have been used during PSPS events in 2020.

Community Resource Centers

213%
confirmed

Community Resource Centers (PSPS-2)

Program Target: Have 23 sites available across SCE service territory for customers impacted by a PSPS

Status Update: 49 CRCs have been contracted across 9 counties. Of these 49, 39 can operate with extended hours (8am to 10pm) per PSPS Phase 2 D.20-05-051. Through the end of September, 11 CRC sites have been activated.

Customer Resiliency Equipment

Customer Resiliency Equipment Incentives (PSPS-3)

Program Target: 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.

Status Update: The pilot program has been completed and the chosen location, a local high school, now has the ability to island itself from the grid and maintain emergency services during a power outage.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

PSPS Activities

IQCC Customer Battery Backup

Critical Care Battery Backup Program (CCBB)* (PSPS-4)

Program Target: Outreach to eligible customers (low income, critical care, Tier 2/3) to provide portable battery back-up solution. SCE has identified approximately 2,500 customers that it will target for the program in 2020, with efforts to begin in the second quarter.

Status Update: The program launched on July 7th and as of the end of September ~2,400 customers are eligible. Batteries started to be delivered to enrolled customers in Q3 and delivery will continue throughout Q4.

MICOP Partnership

MICOP Partnership (PSPS-5)

Program Target: Enable communications with indigenous populations and measure the number of customers contacted

Status Update: The Mixteco/Indigena Community Organization Project (MICOP) has exceeded annual outreach and follow up targets by conducting outreach to ~1,800 people and follow ups with ~140 by the end of September.

Independent Living Center Partnerships

Independent Living Centers Partnership (PSPS-6)

Program Target: Conduct outreach activities and workshops/trainings to provide preparedness education and assistance in applying for the Medical Baseline Program and measure the number of customers contacted

Status Update: 26 workshops have been held YTD, exceeding the target of 10. Total outreach has been conducted to ~13,000 customers.

Community Outreach

Community Outreach (PSPS-7)

Program Target: Minimum of five Community Crew Vehicles (CCVs) ready to be deployed during times when weather and fuel conditions are at critical levels. Communicate with customers in a local targeted way using a variety of channels to ensure timely delivery of notifications.

Status Update: A minimum of five CCVs have been ready for deployment during each of SCE's PSPS activations year to date. The CCV locator tool has featured on sce.com and been promoted during PSPS events. When deployed in-person CCVs have adhered to social distancing practices. A virtual CCV website went live in Q3 offering customers wildfire safety resources and support. *sce.com/wildfire/customer-resources-and-support*

Microgrid Assessment

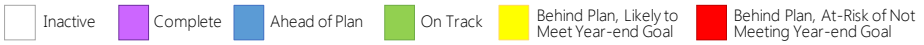
Microgrid Assessment (PSPS-8)

Program Target: 1) Execute requests for proposals (RFP) for six resiliency microgrid projects, 2) Depending on RFP results, implementation of up to 6 resiliency microgrid projects shown to be technically feasible and cost-effective.

Status Update: 2020 program target of issuing an RFP for six potential 2020 microgrid projects was completed. However, the RFP was unsuccessful in identifying cost-effective options for 2020. SCE continued to explore alternative microgrid sites that could be safely and more economically islanded, and issued a second microgrid RFP following a go/no-go decision. SCE received a much higher response rate than the RFP issued earlier this year and is proceeding with microgrid vendor evaluations through the rest of the year for a potential 2022 deployment.

*Formerly called the Income Qualified Critical Care (IQCC) Customer Battery Backup Incentive

WMP Activities Summary



Operational Practices and Risk Analysis Activities

OP: Operational Practices

Annual SOB 322 Review

Annual SOB 322 Review (OP-1)

Program Target: Review and update SOB 322 to reflect lessons learned from past elevated fire weather threats/PSPS events and integrate, where applicable, new and improved situational awareness data, improved threat indicators, and applicable regulatory requirements in an effort to reduce wildfire risk and the impact of outages on customers.

Status Update: Completed the annual SOB 322 bulletin, reflecting lessons learned from 2019, elevated threats, and PSPS events.

Wildfire Infrastructure Protection Staffing

Wildfire Infrastructure Protection Team Additional Staffing (OP-2)

Program Target: Hire additional resources including: a senior compliance manager, two compliance advisors, a project/program advisor, a data specialist and a fire-weather meteorologist. PSPS Operations will also be staffed to provide dedicated operational, project management, and compliance capabilities.

Status Update: SCE is on track to hire all positions by year-end. One compliance advisor position has been shifted to a fire management officer. PSPS Operations has started the hiring of permanent team members.

UAS Operations Training

Unmanned Aerial (UAS) Operations Training (OP-3)

Program Target: Increase the number of UAS operators by an additional 50 crews

Status Update: COVID-19 social distancing orders previously caused delays due to closure of FAA testing centers. There is no virtual training alternative for the FAA Part 107 Knowledge Test. Resources have since taken training courses and plan to take the FAA 107 exam in October and November.

RA: Risk Analysis

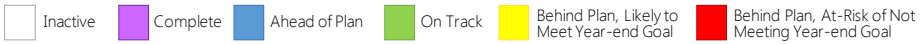
Expansion of Risk Analysis

Expansion of Risk Analysis (RA-1)

Program Target: Implement Wildfire Risk Reduction Model (WRRM) module of Technosylva (software platform)

Status Update: Technosylva delivered an initial version of asset-level wildfire consequence scores that were needed to derive updated wildfire risk scores. SCE evaluated these scores and provided feedback resulting in a second issuance of these data from Technosylva. SCE is now reviewing these latest data while simultaneously proceeding with developing and testing the WRRM software module. The re-issuance of the wildfire consequence scores has delayed the schedule by about one month, however, activity is still on track to complete by year end.

WMP Activities Summary



Vegetation Management Activities

HTMP
102%
trees assessed
97%
trees mitigated within 180 days

Hazard Tree Management Program (VM-1)

Program Target: Assess 75,000 trees for hazardous conditions and perform prescribed mitigations in accordance with program guidelines and schedules

Status Update: Assessed ~76,000 of 75,000 trees through Q3. Prescribed mitigations will continue to be performed through Q4, currently at 97% complete within 180 days of schedule. Expected to complete program target by year-end.

Expanded Pole Brushing
87%
poles cleared

Expanded Pole Brushing (VM-2)

Program Target: 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

Status Update: Cleared ~174,000 of 200,000 poles. SCE has continued to ramp up contractors throughout Q3 and saw increased quarterly production.

Expanded Clearances for Legacy Facilities

Expanded Clearances for Legacy Facilities (VM-3)

Program Target: Perform assessments of all identified facilities in HFRA. Establish enhanced buffers at 30% of identified facilities

Status Update: Q3 fire activity in SCE's service territory restricted crews' access to facilities to perform work. Work is ongoing in Q4 to meet Program Target.

DRI Inspections & Mitigations

Drought Relief Initiative (DRI) Inspections and Mitigations (VM-4)

Program Target: Perform DRI annual inspection scope and complete prescribed mitigations in accordance with internal DRI program guidelines

Status Update: DRI annual inspections are forecasted to be complete in Q4. DRI prescribed mitigations are currently behind plan due to Q3 fire activity in SCE's service territory restricting crews' access to inventory. At the end of Q3, ~89% of active inventory had been removed prior to 180 days. SCE's program requirements state 94% of active inventory should be removed within 180 days. DRI prescribed mitigations are forecast to be on track in Q4.

Vegetation Management Quality Control

Vegetation Management Quality Control (VM-5)

Program Target: Perform 3,000 risk-based HFRA circuit mile vegetation management Quality Control inspections

Status Update: Performed ~4,000 of 3,000 of risk-based HFRA circuit mile quality control inspections.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Situational Awareness Activities

Weather Stations

149%
installed

Weather Stations (SA-1)

Program Target: Install 375 Weather Stations. SCE will strive for installation of 475 Weather Stations subject to resource constraints and other execution risks

Status Update: ~560 of 375 weather stations installed. Exceeded WMP Program target and will continue installations striving for 575 installations.

Fire Potential Index Phase II

Fire Potential Index (FPI) Phase II (SA-2)

Program Target: Refine the current FPI by integrating historical weather and vegetation data into the index

Status Update: Completed development of fuel type map, acquired historical weather data and continued testing the new FPI. Plan to develop fuel loading map with FPI 2.0 inputs in early Q4.

HPCC Weather Modeling System

High-Performing Computer Cluster (HPCC) Weather Modeling System (SA-3)

Program Target: Complete installation of second HPCC

Status Update: Completed the installation of second HPCC weather modeling system and it is in operational use.

Asset Reliability & Risk Analysis

Asset Reliability & Risk Analytics Capability (SA-4)

Program Target: Implement FireCast and FireSim modules of Technosylva

Status Update: Completed implementation of FireCast and FireSim applications and fire scientist training. Began performing fire simulations with the applications in late Q3.

Fuel Sampling Program

Fuel Sampling Program (SA-5)

Program Target: Perform updated fuel sampling in HFRA in areas deemed appropriate once every two weeks (weather permitting)

Status Update: Initiated fuel sampling in all four regions specified in the WMP (Inland Empire, North LA County, Eastern Sierra, Western Sierra). As of late Q3 SCE was assessing impacts from recent fires to the fuel sampling sites.

Surface and Canopy Fuels Mapping

Surface and Canopy Fuels Mapping (SA-6)

Program Target: Initiate surface and canopy fuels mapping across HFRA

Status Update: Finalized purchase order with vendor to begin work in November. This initiative will refresh the fuels/surface canopy dataset in SCE territory and improve fire spread modeling capabilities and confidence levels.

Remote Sensing / Satellite Fuel Moisture

Remote Sensing / Satellite Fuel Moisture (SA-7)

Program Target: Initiate procurement process for remote sensing technology for future implementation

Status Update: Finalizing procurement process for remote sensing pilot starting in Q4. Exploring additional pilots with vendors in Q4.

Fire Science Enhancements

Fire Science Enhancements (SA-8)

Program Target: Implement enhanced forecasting capability and improved fuel modeling

Status Update: Program is working on multiple updates to forecasting capabilities. Ensemble forecasting was implemented in Q3 and will increase the frequency of modeling to receive a range of outputs and a greater confidence in forecast.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Emergency Preparedness Activities

Dear Neighbor Letter

Customer Education and Engagement – Dear Neighbor Letter (DEP-1.1)

Program Target: Send ~915,000 letters with information about PSPS, emergency preparedness, and SCE's wildfire mitigation plan to customer accounts in HFRA and ~3,200,000 letters to customer accounts in non-HFRA

Status Update: Mailings have been completed to all customers (both HFRA and non-HFRA). COVID-19 messaging was included in the newsletter along with contact information in 15 languages.

Community Meetings

Customer Education and Engagement – Community Meetings (DEP-1.2)

Program Target: 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

Status Update: Nine virtual Community Meetings were held by the end of Q2. No additional Community Meetings are planned in 2020.

Marketing Campaign

Customer Education and Engagement – Marketing Campaign (DEP-1.3)

Program Target: 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)

Status Update: The marketing campaign was launched in May and SCE will continue to track PSPS and emergency awareness throughout year-end. At the end of September awareness was ~50%.

SCE Emergency Response Training

SCE Emergency Response Training (DEP-2)

Program Target: Hold SCE IMT member training on de-energization protocols, determine additional staffing needs and train, exercise and qualify new staff

Status Update: Annual trainings were completed in Q2 and large team exercises were completed in Q3. Trainings and exercises were completed virtually as a result of COVID-19. SCE will continue to identify individuals to complete trainings and exercises, as well as, evaluate staffing needs on an on-going basis.

IOU Customer Engagement

IOU Customer Engagement (DEP-3)

Program Target: Participate in statewide multichannel and multi-lingual campaign using digital ads, social media ads, and radio ads to provide customers with important and consistent messaging about wildfire mitigation activities happening across the state

Status Update: SCE has determined there is no need for a separate statewide customer engagement campaign in addition to SCE's local market campaign and informed CalOES of this change in direction. SCE further described this change in its June 1, 2020 Off-Ramp and September 11th Change Report. SCE's local PSPS education campaign launched in May 2020 across digital channels and will continue throughout wildfire season.

Customer Research and Education

Customer Research and Education (DEP-4)

Program Target: 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

Status Update: Research activities summarizing findings from Community Meetings have been completed. Other activities such as the PSPS Tracking Survey are in progress.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

System Hardening Activities

Covered Conductor

79%
Circuit Miles Installed

Covered Conductor (SH-1)

Program Target: Install 700 circuit miles of covered conductor in HFRA. While 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.

Status Update: ~550 of 700 circuit miles installed.

Undergrounding Overhead Conductor

Undergrounding Overhead Conductor (SH-2)

Program Target: Refine evaluation methodology for targeted undergrounding as a wildfire mitigation activity

Status Update: Review of existing methodology was completed in Q2 and 2022 undergrounding scope was submitted in Q3. Revised criteria and methodology for undergrounding that will influence the 2023 scope is planned to be completed in Q4.

Fire Resistant Poles

87%
Poles Installed

Fire Resistant Poles (SH-3)

Program Target: Replace 5,200 poles with fire resistant poles in HFRA. SCE will strive to replace 11,700 poles with fire resistant poles in HFRA subject to pole loading assessment results, resource constraints and other execution risks

Status Update: ~4,500 of 5,200 poles installed.

Branch Line Protection Strategy

100%
Locations

Branch Line Protection Strategy (SH-4)

Program Target: Install/replace fuses at 3,025 locations

Status Update: 3,025 of 3,025 locations installed/replaced fuses.

Install RAR/RCS

80%
RARs/RCSs Installed

Installation of System Automation Equipment – RAR/RCS (SH-5)

Program Target: Install 45 RARs/RCSs

Status Update: 36 of 45 RARs/RCSs installed and operationalized.

Circuit Breaker Relay Hardware for Fast Curve

93%
Installed

Circuit Breaker Relay Hardware for Fast Curve (SH-6)

Program Target: 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.

Status Update: 51 of 55 fast curve relay setting installed and placed into service.

PSPS-Driven Grid Hardening Work

PSPS-Driven Grid Hardening Work (SH-7)

Program Target: Review 50% of all distribution circuits within HFRA to determine if modifications may improve sectionalizing capability within HFRA

Status Update: Review of 468 of the 550 circuits (85%) is complete. Reviews of the remaining 82 circuits will continue through Q4 and is optimistically expected to finish before December.

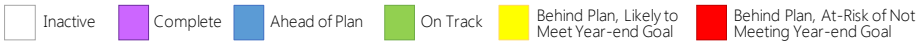
Transmission Open Phase Detection

Transmission Open Phase Detection (SH-8)

Program Target: Continue deployment of transmission open phase detection on six additional transmission/subtransmission circuits

Status Update: All six circuits are in service and are under observation.

WMP Activities Summary



System Hardening Activities

Transmission Overhead Standards

Transmission Overhead Standards (TOH) Review (SH-9)

Program Target: Review transmission standards to determine if there are any changes that can be made to help reduce wildfire threats, especially during extreme wind events

Status Update: Completed review of historical transmission faults/ignitions and identified recommendations for TOH standards updates with stakeholder concurrence. SCE will finalize standards language and documentation for proposed updates through the end of the year.

Tree Attachment Remediation

14%
Remediated

Tree Attachment Remediation (SH-10)

Program Target: Remediate 325 tree attachments. SCE will strive to complete 481 tree attachment remediations subject to resource constraints and other execution risks

Status Update: Program initiated in June. ~44 of 325 remediations completed. Fires, US Forest Service work stoppages, slower environmental permitting, and poor air quality in fire-affected areas impacted recent work progress. Fire damage assessments being conducted. Ability to meet goal is dependent on ability to access fire affected areas.

Legacy Facilities

Legacy Facilities (SH-11)

Program Target: Evaluate risk, scope, and alternatives for identified circuits; evaluation of additional system hardening mitigation for wildlife fault protection and grounding/lightning arresters

Status Update: Q3 fire activity in SCEs service territory impacted risk evaluation for hydro control circuits. Risk evaluation work is on track at low voltage sites and for grounding/lighting arresters. Wildlife risk evaluation has been completed for identified circuits.

Remediation – Distribution

Remediations - Distribution (SH-12.1)*

Program Target: Remediate 100% of notifications with ignition risk in accordance with CPUC requirements, non-inclusive of notifications which meet the criteria of a valid exception

Status Update: Timely remediation has been impacted in Q3 due to unforeseen constraints from catastrophic fires and COVID related restrictions on outages. Due to these additional restoration efforts and other precautions taken due to record dry fuel conditions, resource constraints put this goal at risk for year-end.

Remediations – Transmission

Remediations - Transmission (SH-12.2)*

Program Target: Remediate 100% of notifications with ignition risk in accordance with CPUC requirements, non-inclusive of notifications which meet the criteria of a valid exception

Status Update: Timely remediation has been impacted in Q3 due to unforeseen constraints from catastrophic fires and COVID related restrictions on outages. Due to these additional restoration efforts and other precautions taken due to record dry fuel conditions, resource constraints put this goal at risk for year-end.

Remediations – Generation

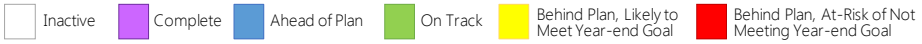
Remediations - Generation (SH-12.3)

Program Target: Remediate 100% of notifications with ignition risk in accordance with CPUC requirements, non-inclusive of notifications which meet the criteria of a valid exception

Status Update: Based on current production and pending notifications SCE is on target to meet year-end goal.

* As of the end of Q3, both Distribution (SH-12.1) and Transmission (SH-12.2) had completed more notifications than their YTD plans, putting them "ahead of plan" for the year. However due to unforeseen constraints from catastrophic fires and COVID related restrictions on outages both remain at-risk for year-end.

WMP Activities Summary



Alternative Technologies Activities

MADEC

Alternative Technology Pilots - Meter Alarming for Downed Energized Conductor (MADEC) (AT-1)

Program Target: Evaluating algorithm improvements specific to the detection of downed energized covered conductor, which may behave differently than bare conductor

Status Update: SCE is collecting and analyzing field data to build an event database to update the MADEC algorithm effectively. To date, too few datapoints to enhance algorithm for covered conductor.

Distribution Fault Anticipation

Distribution Fault Anticipation (DFA) (AT-2.1)

Program Target: Evaluate technology performance on fault anticipation technology and future deployment

Status Update: Distribution Fault Anticipation (DFA) assessment documentation is under peer review. SCE will continue to monitor the performance of its 60 field-installed DFA units through the end of October. Team is also making progress on developing its 2021 deployment plan and process for continuous monitoring.

Advanced UAS Study

Advanced Unmanned Aerial Systems Study (AT-2.2)

Program Target: Conduct additional Extended Visual Line of Sight (EVLOS) demonstration UAS flights using lessons learned from 2019 study and validate aerial patrol findings via truck, foot, or helicopter

Status Update: SCE successfully completed 5 advanced UAS vendor technical and safety (T&S) qualifications and obtained Beyond Visual Line of Sight (BVLOS) waivers from FAA for these simulated PSPS events. T&S qualifications effectively proved that aerial patrols via BVLOS missions are a viable means to conduct a circuit patrol. A subset of vendors will be advanced for second round of PSPS simulated events in Q4.

Ground Fault Neutralizer

Alternative Technology Evaluations: Rapid Earth Fault Current Limiter – Ground Fault Neutralizer (GFN) (AT-3.1)

Program Target: Initiate engineering design and order equipment for a GFN field installation

Status Update: GFN equipment was received two months ahead of schedule and is being customized on-site at one of SCE's substations. Vendor selection for capacity balancing units (CBUs), a type of GFN support equipment, was completed and those units are in the process of being tested.

Resonant Grounding

Alternative Technology Evaluations: Rapid Earth Fault Current Limiter – Resonant Grounding with Arc Suppression Coil (AT-3.2)

Program Target: Initiate engineering design to convert a typical substation to resonant grounding

Status Update: Cyber security review and controller order were finalized in late Q3. The vendor equipment build is in progress and factory acceptance tests are scheduled for early Q4. The proposed design is going through internal reviews for approval.

Isolation Transformer

Alternative Technology Evaluations: Rapid Earth Fault Current Limiter – Isolation Transformer (AT-3.3)

Program Target: Install one Rapid Earth Fault Current Limiter - Isolation Transformer

Status Update: Installation and commissioning criteria for the isolation transformers were finalized in Q3. Ability to take an outage to cutover isolation transformer equipment for in-servicing is impacted by elevated fire risk weather conditions but not expected to prevent completion by year end.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Alternative Technologies Activities

Distribution Open Phase Detection

Alternative Technology Evaluations – Distribution Open Phase Detection (AT-3.4)

Program Target: Complete pilot installation for five circuit locations

Status Update: Distribution open phase detection logic has been deployed at five pilot locations as of mid-Q3. These locations have been in-serviced and are now in observation mode for alarming to validate and test the logic.

Partial Discharge Assessment

Assessment of Partial Discharge for Transmission Facilities (AT-6)

Program Target: Evaluate use of a Partial Discharge assessment technology to assess the health of in-service transmission assets

Status Update: Team explored possibility for doing a pilot for Transmission Partial Discharge assessment. Following internal reviews, team was directed to assess the technology using benchmarking data and, from there, develop recommendations for a potential 2021 pilot. Team is in the process of collecting benchmarking data through early Q4.

Vibration Dampers

Alternative Technology Implementation – Vibration Dampers (AT-4)

Program Target: Evaluate damper technologies for both small and large diameter covered conductor applications and develop standards for small and large diameter covered conductors

Status Update: SCE successfully worked with vendor to remotely configure vibration damper equipment to overcome COVID-19 travel restrictions that prevented the vendor from traveling to SCE. Large diameter sensors were successfully installed for data gathering and have since been removed for data analysis. Analysis validated that dampers help prevent conductor strain. Team is developing standards to use dampers with both small and large covered conductor

Early Fault Detection Evaluation

Early Fault Detection (EFD) Evaluation (AT-7)

Program Target: Develop installation standards, install, and commission at least 10 EFD sensors. Gather data to determine requirements to support the potential for larger system deployments. SCE will strive to complete an additional 90 sensors for evaluation subject to resource constraints and other execution risks

Status Update: Team developed installation standards and completed field installation of all 10 early fault detection (EFD) units, effectively completing their WMP goal. Locations have been identified for all remaining 2020 installations. Material for additional 45 EFDs was received in mid-Q3. As of the end of Q3, 17 EFDs had been field installed.

Asset Defect Detection Using

Asset Defect Detection Using Machine Learning Object Detection (AT-5)

Program Target: Begin standardization of data collection for Machine Learning (ML) by cataloging and tagging inspection imagery metadata for ML. Investigate SCE use cases and evaluate feasibility of ML to support objective evaluation of assets

Status Update: Over 50,000 images have been catalogued and tagged to help feed machine learning (ML) models. Team explored ways to integrate ML capabilities into inspection / remediation processes but determined additional advancement is preferred before ML is ready for full scale use.

High Impedance Relay Evaluations

High Impedance Relay Evaluations (AT-8)

Program Target: Investigate and deploy two controllers/relays with a High Impedance (Hi-Z) element in HFRA

Status Update: SCE installed high impedance elements at two Distribution pilot locations a month ahead of schedule. Team will be monitoring these installations in "alarm" mode for the rest of 2020 to validate that they alarm as expected.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Inspections Activities

Distribution HFRII in HFRA

159%
structures inspected

Distribution High Fire Risk Informed Inspections (HFRII) in HFRA (IN-1.1)*

Program Target: Inspect 105,000 structures in HFRA

Status Update: ~167,200 of 105,000 structures inspected in HFRA.

Distribution Infrared Inspections

Infrared Inspection of Energized Overhead Distribution Facilities and Equipment (IN-3)

Program Target: Inspect 50% of distribution circuits in HFRA

Status Update: Inspected ~42% of distribution circuit miles in HFRA. Expected to complete program target by year-end.

Transmission HFRII in HFRA

150%
structures inspected

Transmission High Fire Risk Informed Inspections (HFRII) in HFRA (IN-1.2)*

Program Target: Inspect 22,500 structures in HFRA

Status Update: ~33,800 of 22,500 structures inspected in HFRA.

Transmission Infrared Inspections

Infrared Inspection, Corona Scanning, and High Definition Imagery of Energized Overhead Transmission facilities and Equipment (IN-4)

Program Target: Inspect 1,000 transmission circuit miles in HFRA

Status Update: ~570 circuit miles inspected in HFRA. Fires causing poor visibility and fire restoration efforts causing resource diversion have resulted in program delays, however, SCE is expected to meet year-end goal.

Quality Oversight / Quality Control

111%
structures inspected

Quality Oversight / Quality Control (IN-2)

Program Target: Perform quality control and oversight of inspections of 15,000 transmission, distribution, and generation structures in HFRA

Status Update: Performed quality control on ~16,500 of 15,000 structures in HFRA.

Generation HFRII in HFRA

Generation High Fire Risk Informed Inspections in HFRA (IN-5)

Program Target: Perform inspection of 200 generation-related assets

Status Update: ~268 of 200 structures inspected in HFRA.

* The Change Report filed in September 2020 describes that SCE plans to inspect ~165,000 distribution and ~33,500 transmission structures in HFRA in 2020.

WMP Activities Summary

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Inspections Activities

Aerial Inspections – Distribution

Aerial Inspections - Distribution (IN-6.1)

Program Target: Inspect 165,000 structures in HFRA

Status Update: ~138,800 of 165,000 structures inspected in HFRA. 2020 aerial inspections was previously delayed due to COVID-19 restrictions preventing aerial inspectors from accessing the on-site inspection room. Restarted inspections in Q2. Helicopter vendors have completed first pass and have moved to clean up work, and drone vendors are working through scope areas with more than 90% completion. Recent fires and environmental factors (visibility, winds, heat) caused vendors to slow or stand down, helping inspectors catch up with image processing.

Aerial Inspections – Transmission

Aerial Inspections - Transmission (IN-6.2)

Program Target: Inspect 33,500 structures in HFRA

Status Update: ~22,300 of 33,500 structures inspected in HFRA. 2020 aerial inspections was previously delayed due to COVID-19 restrictions preventing aerial inspectors from accessing the on-site inspection room. Restarted inspections in Q2. Increased pace in Q3 by increasing resources and aligning with vendors on scheduled inspections.

Failure Modes and Effects Analysis

Failure Modes and Effects Analysis (IN-7)

Program Update: Complete FMEA study for substation assets in HFRA and prepare final report

Status Update: The working group began developing FMEA risk identification in Q2 and completed the FMEA risk assessment in Q3. Final report is on track for completion in Q4.

Appendix

Behind Plan Activities Details

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	OP-3: Unmanned Aerial (UAS) Operations Training **Increase the number of UAS operators (FAA certified drone pilot) by an additional 50 crews**	**Summary:** COVID-19 social distancing orders have caused delays due to closure of FAA contracted vendor testing centers through July and lack of a virtual training alternative. Held classroom training in September and October for resources to prepare for the FAA 107 exam **Progress:** • 12 resources passed the FAA exam but are awaiting aircraft training • 2 exam prep training courses were held in September with 15 attendees each. 1 more training course is scheduled for mid-October with about 15 attendees. • Currently in procurement process with vendor for acquire UAS aircrafts for operational training **Risks or Challenges:** • Ensuring resources prepare and pass the exam on the first pass; not passing will mean additional preparation time and re-scheduling the exam • Working to finalize documentation for hands-on technical training after attendees have passed written exam. **Actions to Improve Performance / Get Well Plan:** • Held small group classroom training options for resources in September and October • Contacting FAA contracted vendor testing centers on their plans to open • Working with T&D training and CRE to certify classrooms in Daggett for hands on training • Striving to have 50+ resources eligible for hands-on UAS technical training to allow for buffer in meeting WMP goal

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	RA-1: Expansion of Risk Analysis **Implement Wildfire Risk Reduction Model (WRRM) module of Technosylva**	**Summary:** Technosylva delivered initial HFRA wildfire consequence data ("consequence data") in August, which SCE reviewed and provided feedback on. Based on SCE's feedback, Technosylva delivered updated consequence data at the end of September. SCE is in the process of reviewing the new data, comparing the results to REAX, and presenting its findings to internal leadership. However, SCE expects the project timeline to push back as a result of needing to get updated consequence data and expects to meet the WMP goal in December rather than earlier as first planned. **Progress:** • SCE completed review of the initial consequence data and provided feedback in mid-September • Technosylva refreshed and delivered new consequence data at the end of September – SCE is now reviewing these data and presenting its findings to senior leadership • WRRM module development and testing are proceeding in parallel with data reviews to meet WMO goal by year end **Risks or Challenges:** • Technosylva is still experiencing conflicting demands from other clients, however, they were responsive to SCE's need to get refreshed consequence scores in September • Asset location information is in different systems making it more challenging to align asset information with asset location **Actions to Improve Performance / Get Well Plan** • Improve communications around business and technical requirements • Complete comparison between Technosylva's consequence scores and REAX scores to identify the differences between the two and present to senior leadership for approval • Accelerate project plan activities, such as testing, to help stay on plan while maintaining quality

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	VM-3: Expanded Clearances for Legacy Facilities **Perform assessments of all identified facilities in HFRA. Establish enhanced buffers at 30% of identified facilities.**	**Summary:** The activity is off track due to fires causing crews to stop work and re-locate on multiple occasions. SCE is currently working to assess which facilities were impacted by fire activity. Despite fire activity SCE expects to meet the year-end goal. **Progress:** • Assessments of identified facilities and field visits to those facilities have met or surpassed 2020 goals • YTD enhanced buffers have been completed at ~25 identified facilities **Risks or Challenges:** • Wildfires caused many issues in September causing the team to re-assign crews on multiple occasions. **Actions to Improve Performance / Get Well Plan:** • Several sites are in progress in October and the activity is likely to meet the year-end goal.

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	VM-4: Drought Relief Initiative (DRI) Inspection and Mitigations **Perform annual DRI inspection scope and compete mitigations according to guidelines**	**Summary:** Drought Relief Initiative (DRI) inspections are behind YTD plan. DRI mitigations are currently off track, with 89% of active inventory being removed prior to 180 days. SCE's program requirements state 94% of active inventory should be removed within 180 days. **Progress:** • Inspections: 1st and 2nd cycle inspections are 100% complete. 3rd and final cycle inspections are on track to finish by year end. • Mitigations: DRI active inventory is at ~1.3K trees (11% of trees >180 day old), with an additional ~350 trees in "hold" status pending agency approval. **Risks or Challenges:** • Loss of access to high volume of inventory due to wildfires • Loss of crews due to lack of available work since a large volume of trees are pending agency approval. **Actions to Improve Performance / Get Well Plan:** • Inspections: Onboarded additional staff to support the 3rd cycle inspection effort. • Mitigations: Monitor contractor prioritization of removal work to support the 180-day goal

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	SH-10: Tree Attachment Remediation **Remediate 325 tree attachments** **Strive to complete 481 tree attachment remediations subject to resource constraints and other execution risks**	**Summary:** 44 tree attachments (14% of WMP goal) had been remediated out of 199 planned through the end of September. Fires and US Forest Service temporary work stoppage in Q3 impeded work in affected areas. Snow at higher elevations earlier in the summer delayed work start. SCE is identifying tree attachments that have been damaged by fires. Team's ability to get back on track is dependent on its ability to access fire affected areas. **Progress:** • Over 250 tree attachments out of the 325 goal have been authorized to proceed by Environmental and Permitting, however, the majority have been affected by fire activity • As of the end of Q3, SCE started construction on remediating over 75 tree attachments but work was put on hold due to fires **Risks or Challenges:** • US Forest Service work stoppages affected Tree Attachment Remediation progress during the first half of September • Poor air quality in fire areas persists, limiting SCE's ability to remediate tree attachments • Late snowfall and snowpack prohibited construction start; early snowfall could potentially slow work in mid to late Q4 **Actions to Improve Performance / Get Well Plan:** • Fire restoration will remediate some of the tree attachments on circuits scoped for future years (2021 or later) • Fire damage assessment is in progress and restoration is being prioritized accordingly

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	SH-12.1: Distribution Remediations **Remediate 100% of notifications with ignition risk in accordance with CPUC requirements, non-inclusive of notifications which meet the criteria of a valid exception**	**Summary:** Q3 production below Q2 due to unforeseen constraints from catastrophic fires and COVID related restrictions on outages. Due to these additional restoration efforts and other precautions taken due to record dry fuel conditions, resource constraints put this goal at risk for year-end. **Progress**: • Focusing on executing minimally impactful items that do not require outages (no impact to customers and less risky work for our operators) **Risks or Challenges**: • Interruptions in planned work due to multiple large fires in the territory, air quality alerts halting work, heat storm response and recovery, and operating restrictions as a result of continued elevated weather threat conditions have caused a decrease in production across all regions • Reallocation of crews to address additional demand from fire restoration and challenging conditions from continued hot & dry weather conditions • COVID restrictions continue to delay, slow and disallow outages in many areas, impacting ability to safely perform work timely and maintain production **Actions to Improve or Sustain Performance:** • Focusing on executing work items that do not require outages (those with little/no outage to customers and those item that are less risky work for our crews) • Engage in deep dive reviews with impacted regions on remaining notifications, identify additional challenges (e.g. permitting, crew resources) and collaborate on the path forward

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	SH-12.2: Transmission Remediations **Remediate 100% of notifications with ignition risk in accordance with CPUC requirements, non-inclusive of notifications which meet the criteria of a valid exception**	**Summary:** Q3 production below expectations due to unforeseen outage constraints and work restrictions from catastrophic fires and COVID. Combined with high fire weather threat conditions slowing the pace of work in Q3 this goal is at risk for year-end. **Progress**: • Monthly production increased from Q2 to Q3 • Additional personnel have been used to perform brushing notifications and assist with environmental clearances • Improved planning, scheduling and ensuring notifications were closed in the system of record also helped increase production **Risks or Challenges**: • Fires, storms, and weather conditions have restricted crews from performing pending work as quickly as expected • COVID restrictions continue to delay, slow and disallow outages in many areas, impacting ability to safely perform work timely and maintain production **Actions to Improve or Sustain Performance:** • Working to identify high risk pending remediations and potential risk prioritization • Holding reviews with regions to identify and schedule remaining notifications

WMP Activities Details

Behind Plan Activities

Inactive | Complete | Ahead of Plan | On Track | Behind Plan, Likely to Meet Year-end Goal | Behind Plan, At-Risk of Not Meeting Year-end Goal

Status	Current Goal	Narrative
	IN-6: Aerial Inspections in Distribution and Transmission **IN-6.1: Inspect 165,000 structures in HFRA** **IN-6.2: Inspect 33,500 structures in HFRA**	**Summary**: 2020 aerial inspections began later than originally planned in Q2, but plan to be completed in Q4. **Progress**: • Refined 2020 approach to incorporate 2019 EOI lessons learned • By the end of Q3, ~4 image inspectors were supporting Distribution and ~65 were supporting Transmission via a remote work • Vast majority of initial capture work for Distribution is completed, with the second pass and cleanup work currently underway **Risks or Challenges**: • In March, COVID-19 safety concerns resulted in the release of aerial inspectors from on-site inspection room. Since then, the number of inspectors working remotely has increased. • Recent fires and environmental factors (visibility, winds, heat) caused vendors to slow or stand down, lowering the image queue for inspectors **Actions to Improve or Sustain Performance**: • The SCE aerial team is working with relevant internal and external parties to help ensure image capturing flights can continue safely in a COVID-19 environment. • Working closely with helicopter vendors to understand scheduling limitations based on current environmental factors