



2023-2025 WILDFIRE MITIGATION PLAN FACT SHEET

Southern California Edison's 2023-25 Wildfire Mitigation Plan builds upon our accomplishments and lessons learned from the 2020-22 Wildfire Mitigation Plan to maintain the wildfire risk reduction the company has achieved to date. The plan intends to further reduce the significant wildfire risk and Public Safety Power Shutoff (PSPS) impacts that remain in high fire risk areas. We continue to make progress in installing covered conductor, undergrounding overhead power lines in severe risk areas and implementing cutting-edge technologies to help predict the wildfire threat. Our grid hardening work has helped to reduce PSPS, particularly in frequently impacted communities.

IN 2023, WE ARE BUILDING ON THE WORK ALREADY ACCOMPLISHED WHILE FOCUSING ON THESE KEY AREAS:

- Continue hardening the grid, including transmission lines
- Ramp up targeted undergrounding work in severe risk areas
- Continue reducing PSPS impacts, particularly with Access & Functional Needs customers
- Expand aerial fire suppression funding to year-round in 2023
- Further technological advancements

SCE HAS REDUCED THE PROBABILITY OF CATASTROPHIC WILDFIRES ASSOCIATED WITH ITS EQUIPMENT BY ABOUT 75%-80% SINCE 2018



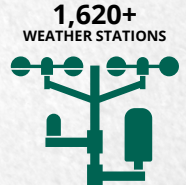
~4,400 MILES
OF COVERED CONDUCTOR



1.9 MILLION+
TRIMS AND REMOVALS



1 MILLION+
HFRA INSPECTIONS



180+
HD CAMERAS

1,620+
WEATHER STATIONS

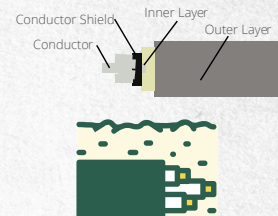
SINCE 2018 THROUGH END OF 2022

GRID DESIGN & SYSTEM HARDENING

We continue to make enhancements to our electrical system to make the grid more resilient in high fire risk areas, improving reliability and reducing wildfire risk.

COVERED CONDUCTOR AND UNDERGROUNDING

- Covered conductor, also referred to as coated electrical wire, significantly reduces the possibility of a power line arcing or sparking if contact occurs with an object like a tree branch or metallic balloon.
- More than 2,850 additional miles of covered conductor will be installed between 2023-25. By the end of 2025, SCE expects to have replaced more than 7,200 miles, or about 75%, of overhead distribution power lines in high fire risk areas with covered conductor.
- We plan to complete about 100 miles of undergrounding by 2025 to address the high risk presented by limited exit and entry points to communities, extreme potential consequences and other factors.



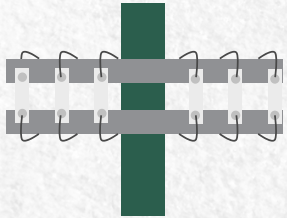
FIRE-RESISTANT POLES

- Fire-resistant poles can withstand fire and maintain system resiliency while minimizing service restoration time. They can also reduce ignitions from equipment atop the pole.
- We continue installing a mix of composite poles and wooden poles with a fire-resistant wrap, which reduces the risk of damage. Reducing the risk of pole damage allows us to restore power safely and more quickly to customers during an emergency.



GRID DESIGN & SYSTEM HARDENING CONTINUED

PROTECTIVE DEVICES & SETTINGS



- **Fast-acting fuses** interrupt electrical current quickly and reduce the risk of ignitions when there is an electrical fault, such as when a tree falls on a power line during high winds. We will install or replace fuses at more than 500 locations in 2023.
- We will also continue installing remote-controlled **sectionalizing devices** to segment or isolate portions of circuits during PSPS events to minimize the number of customers impacted.
- Since 2018, we've been using faster grid protection settings, also known as **fast-curve settings**, on more than 900 circuits in high fire risk areas during elevated fire conditions for a quicker reduction in fault energy, which decreases the ignition risk.
- The company will upgrade relay hardware to expand the number of circuits with these protection settings.
- We will continue to refine our approach to balance the wildfire risk reduction benefits and potential customer outage impacts.

HIGH FIRE RISK-INFORMED INSPECTIONS



We annually inspect overhead transmission, distribution and generation equipment in high fire risk areas to identify potential safety hazards. We prioritize the highest-risk structures identified by our advanced wildfire risk model and equipment in targeted areas based on emergent fire weather conditions, such as dry fuels.

- Ground inspections by field crews and aerial inspections using drones and helicopters are conducted to obtain a 360-degree view of our equipment, where possible, for any needed maintenance, repair or replacement.
- We plan to complete more than 187,000 distribution inspections and more than 28,000 transmission inspections annually in 2023-25.

VEGETATION MANAGEMENT



We continue our efforts to inspect, trim and remove trees to prevent vegetation from coming into contact with electrical equipment and potentially sparking a fire. Tall trees that could potentially fall into power lines beyond our standard pruning zones are also assessed and mitigated.

- SCE inspects 1.6 million trees across the service area annually and typically mitigates approximately 850,000 of those trees. More than half are in high fire risk areas.
- In 2023, SCE plans to inspect over 130,000 trees that pose a threat of falling into SCE's electrical equipment in the highest-risk locations.

SITUATIONAL AWARENESS

The size of our service area in high fire risk areas and its diverse terrain requires a network of weather stations and wildfire cameras to monitor location-specific, real-time conditions that help inform operational decision-making.

WEATHER STATIONS AND FIRE SPREAD MODELING TECHNOLOGY

- Weather stations provide wind speed, humidity and temperature data, among other variables, that is updated every 10 minutes. The data allows more targeted de-energizations during PSPS events and is accessible to the public at sce.com/weatherstations.
- We plan to install at least an additional 180 weather stations between 2023-25, including on transmission lines, for a total of more than 1,800 weather stations by the end of 2025.
- We will continue to add machine learning capabilities to more weather station locations, more than 700 through 2024, which will help improve wind speed forecasts.
- We have increased our computing power to model the atmosphere at a higher resolution to produce more granular weather forecasts for more informed PSPS decisions.
- We plan to implement fire spread modeling technology since it will help determine the impacts wildfires will have on our customers and the communities we serve.



WILDFIRE CAMERAS/SATELLITE WILDFIRE DETECTION

- We continue to use artificial intelligence technology to confirm wildfires. It uses satellite imagery in conjunction with SCE's high-definition camera system at [ALERTCalifornia](#) and can notify fire agencies about possible ignitions.
- More than 20 additional cameras will be installed through 2024. The cameras pan, tilt, zoom and perform 360-degree sweeps approximately every minute.



AERIAL FIRE SUPPRESSION

QUICK REACTION FORCE

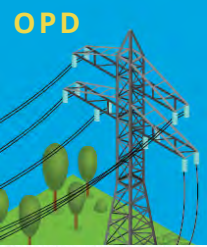
- We continue to partner with the LA County Fire Department, Orange County Fire Authority and Ventura County Fire Department to expand their firefighting capabilities.
- We expanded to year-round aerial fire suppression from the Quick Reaction Force, made up of the world's largest fire-suppression helicopters. The QRF consists of three Coulson-Unical CH-47 helitankers and a Sikorsky-76 command-and-control helicopter.



OTHER TECHNOLOGIES

SCE is continuously developing new approaches and collaborating with other utilities, academia and the energy sector to make our communities safer. Below are some other technologies that we will continue to study, develop or advance to complement our existing suite of wildfire mitigations.

OPD



OPEN PHASE DETECTION (OPD)

can sense when a power line breaks or separates and turns off the power before it even falls to the ground to prevent potential ignitions.

HIGH IMPEDANCE RELAYS

use protective elements to reduce the risk of relatively low-energy fault conditions that are typically undetectable by conventional protection schemes.



EARLY FAULT DETECTION (EFD)

uses radio frequency sensors placed on power poles to “listen” for abnormal radio frequency signals on power lines that indicate potential problems, such as frayed power lines, to help prevent potential ignitions before the equipment fails.

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

using computer software to review high-quality images of our equipment captured during inspections to automatically identify equipment that may need maintenance, repair or replacement with more accuracy and speed.

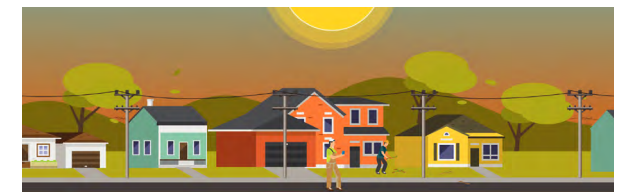
RAPID EARTH FAULT CURRENT LIMITER (REFCL)

detects when a single power line has fallen to the ground and almost instantly reduces the energy released. Along with covered conductor deployment, asset inspections and vegetation management activities, the combined risk reduction potential of REFCL can be close to that of undergrounding.

PUBLIC SAFETY POWER SHUTOFFS

The ongoing wildfire mitigation work has allowed SCE to significantly reduce PSPS in high fire risk areas and will further reduce the need in the future with continued grid hardening investments.

- While PSPS remains a tool of last resort to mitigate wildfire risk during dangerous fire weather conditions, we recognize that these outages are difficult for our customers. We continue to reduce the size, frequency and duration of PSPS events as more wildfire mitigations are implemented.
- After PSPS events, SCE crews have found equipment damage and tree branches contacting bare power lines without covered conductor, which could have ignited fires. This illustrates the importance of PSPS outages and installing covered conductor to continue reducing PSPS events.
- We are actively engaging customers, particularly the Access and Functional Needs community, so they are prepared for PSPS events and other outages. Community Resource Centers and Community Crew Vehicles are also available to support customers during PSPS events.
- We continue to offer rebates on portable backup battery solutions, hotel discounts and other programs to help customers during PSPS and emergencies. We will also provide no-cost backup batteries with solar charging capability to eligible Medical Baseline customers who rely on medical equipment and live in a high fire risk area.



**TO READ THE FULL
WILDFIRE
MITIGATION PLAN,
VISIT [SCE.COM/WMP](https://www.sce.com/wmp)**

ANATOMY OF A POWER POLE*

HARDENING THE GRID

COVERED CONDUCTOR is a wire with a protective layer that significantly reduces the possibility of power lines arcing or sparking if foreign objects make contact.

COMPOSITE CROSSARMS can prevent fires along the crossarm, and are more durable and resistant to the elements like rot and woodpeckers.

TRANSFORMER FILLED WITH BIODEGRADABLE FLUID helps insulate and cool transformers. The new FR3 biodegradable fluid has higher flash and fire points that help reduce the chance of equipment failure.

COMPOSITE POLE is made of fire-resistant fiberglass to reduce the risk of fire damage and allow for quicker and safer power restoration after an emergency.

REMOTE-CONTROLLED AUTOMATIC RECLOSERS can switch off power when issues such as faults occur, segmenting circuits to potentially minimize customer impact.

SURGE ARRESTERS are devices designed to allow the electrical system to operate without arcs or sparks.

CURRENT-LIMITING FUSES are fast-acting fuses that interrupt electricity if a fault is detected on the grid, and quickly lessens the energy output.

COVERS ON ALL CONNECTION POINTS help reduce the chance of faults from objects.

EARLY FAULT DETECTION SYSTEM uses radio frequency sensors placed on power poles to “listen” for abnormal radio frequency signals on power lines that indicate potential problems, such as frayed power lines.

**TO LEARN MORE ABOUT
WILDFIRE SAFETY AND PSPS, VISIT
[EDISON.COM/WILDFIRE-SAFETY](https://www.edison.com/wildfire-safety)**

* Illustrations are a representation and are not to scale



Wildfire Mitigation Activities PROGRESS UPDATE

2022 Fourth Quarter Progress Report

Data as of 12/31/22

