

Safety Practices Related to Energized Lines

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Energy for What's Ahead®



Agenda

Goal: Share work practices to keep workers safe around electrical equipment and provide resources to dig deeper into relevant topical areas.

- Introduction
- SCE Public Safety Team
- Contact with Intact Equipment
 - Overhead
 - Underground
- Wire Down Events
- Other Public Safety Topics
- Resources
- Q&A

Introduction to SCE

Who We Are

- An Edison International company
- One of the nation's largest investor-owned electric utilities
- Regulated by the California Public Utilities Commission and Federal Energy Regulatory Commission
- ~12,000 employees
- More than 135 years of history



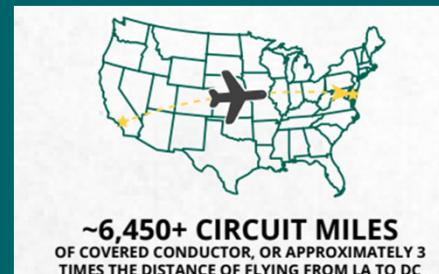
Who We Serve

- 50,000 square miles of SCE service area across Central, Coastal and Southern California
- 184 cities, 15 counties and 13 Native American tribes
- 15 million residents
- 5.2 million customer accounts



2023-2025 Wildfire Mitigation

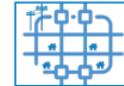
- Continue hardening the grid, including transmission lines
- Ramp up targeted undergrounding work in severe risk areas
- Continue reducing PSPS impacts, particularly with Access & Functional Needs customers
- Expanded to year-round aerial fire suppression funding



Countdown to 2045

- By 2045, 90% of vehicles and 95% of buildings will run on electricity
- Electricity demand will rise by 80%
- Requires urgent, fundamental changes in how the state's entire energy infrastructure is planned and operated

HOW WE GET THERE



System planning must be reimagined by state agencies and utilities for greater speed, efficiency, integration and flexibility



Emerging generation technology needs near-term investment to enable longer-term emission reductions



Transmission infrastructure development needs process and regulatory reforms to accelerate



Distribution grid evolution is required for utilities to serve electrification load and fully utilize local energy resources

About Me

- Lifelong Southern California resident
- B.S. Mechanical Engineering
- J.D. w/ Intellectual Property Certificate
- 2003-2015 – SCE's Technology Test Center
 - HVAC and commercial refrigeration
 - Supporting energy efficiency and demand response programs
- 2015-2017 – Energy efficiency program technical staff
- 2017-2025 – Audit Services Department
 - Operational audits
 - Wildfire-related initiatives
- 2025-present – Enterprise Risk Management
 - Wildfire and Public Safety



SCE Public Safety Team

Since January 2022, SCE's Public Safety function has been housed in Enterprise Risk Management (ERM)

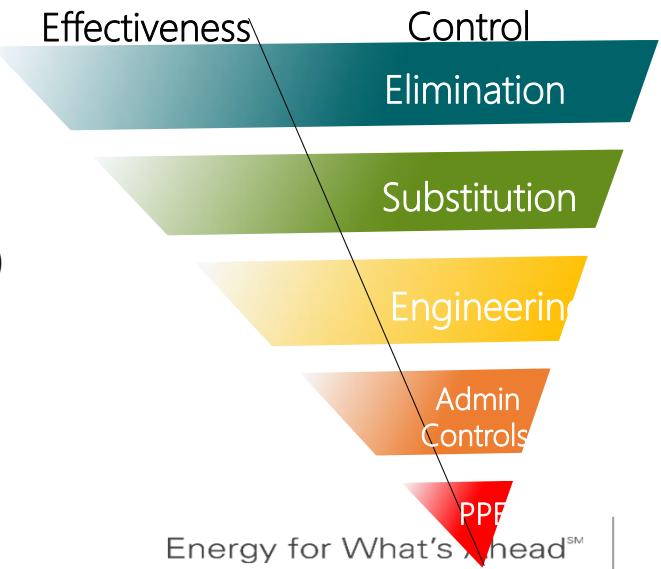
- Shift strategic thinking and use a data-based approach to understanding and mitigating Public Safety risks
- Understand the golden threads that tie our incidents together
- Broaden focus from traditional electric utility public safety risks to non-traditional risks

Traditional

- Contact with Energized Equipment
 - Intact overhead (tree trimming)
 - Downed wire
 - Dig ins

Non-traditional

- Vehicle Hit Pole (VHP)
- Vandalism
- Aircraft line strikes
- Building clearances



Contact with Intact Equipment

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Working Around Overhead Wires

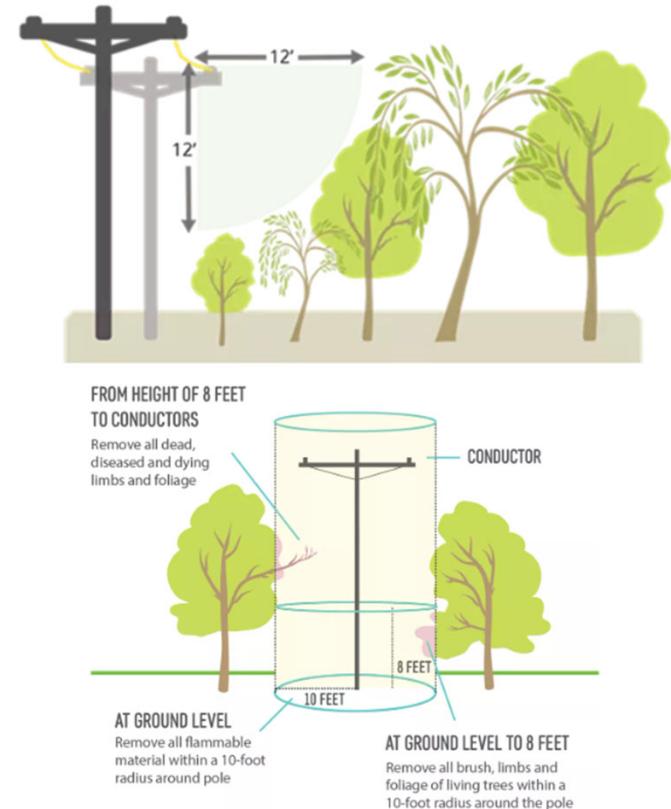
When working outdoors, remember to look up and look out for power lines. Any contact with a power line can seriously hurt, or even kill you.

- Situational awareness
 - Pre-work briefing to identify hazards
 - Elevated positions
 - Building proximity to conductors
 - Impaired visibility
- Stay at least 10 ft away
 - People and equipment
 - Mark boundaries
 - Use spotters
 - Scaffolding, boat masts, antennas, satellite dishes, ladders, long-handled tools

Working Around Overhead Wires – Vegetation / Agriculture

SCE is required to maintain vegetation clearance around energized conductors.

- Only qualified workers are permitted to work near energized lines. Call SCE if you see trees encroaching
- Recognize the risks
 - Direct and indirect contact risks
- Review the job site
- Respect minimum approach distance rules
 - Use the right tools and properly maintain them
 - Ladders, poles, bucket trucks
- Orchard / agriculture
- Right Tree, Right Place



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Working Around Underground Equipment

When work requires digging, dangerous conditions could be hidden. Any contact with a power line can seriously hurt, or even kill you.

- Call 811 or submit online at least 48 hours before you plan to dig
 - They will mark all utility lines – electric, gas, communications, water, and sewer
 - Make sure contractors do too
- Situational awareness – pre-work briefing
- Trenching practices
 - Safely expose buried lines – 2 feet on either side using hand tools
 - Assume all conduit has energized wires
 - Use non-conductive tools around electricity
- Trenchless installations
 - Dig potholes and monitor progress
 - Keep safe distance from marked utilities
 - Calibrate equipment
- Report any damage that occurs

Wire Down

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Wire Down Events

Always consider downed lines to be "live"; never approach them.

- Stay 100 ft away in a safe place.
- Call 911 – tell them it is an electrical emergency
- Warn others to stay away
- Wet ground, puddles, or wet grass can become electrified
- Don't approach or touch anyone or anything in contact with a downed power line
- Do not attempt to extinguish a fire near a downed line

Wire Down Involving a Vehicle

If wires end up on or near a vehicle following a crash, special precautions apply.

- Do not drive over a downed wire
- Remain in the vehicle, and stay inside until told to exit by utility workers
- Call 911 – tell them it is an electrical emergency
- Warn others to stay away
- Wet ground, puddles, or wet grass can become electrified
- If you must exit due to fire, smoke, or other hazard, use a door free of anything touching the ground.
 - Cross arms and jump clear
 - Land with feet clear and shuffle away, keeping feet close together and always touching the ground
 - Do not touch the vehicle or any wires on ground or overhead

[PSE Video - \[https://youtu.be/fLVzvMTgGDY?si=YJ_qIOLJA-dew27d\]\(https://youtu.be/fLVzvMTgGDY?si=YJ_qIOLJA-dew27d\)](https://youtu.be/fLVzvMTgGDY?si=YJ_qIOLJA-dew27d)

If Contact Happens....

Being prepared and knowing what to do can greatly influence the outcome.

- What does contact look like?
- Assess the scene for hazards
- Don't touch anything or anyone that has been in contact with energized equipment
- Warn others to stay away
- Call 911 – tell them it is an electrical emergency
- If free from the electrical source administer first aid, including CPR if needed
- Seek medical attention immediately – electrical burns may not be visible

Other Public Safety Topics

Additional public safety focus areas and evolving topics:

- Contact from objects – metallic balloons, awnings, drones
- Aircraft wire strikes
- Vandalism
- Battery energy storage
- Slips, trips, and falls
- Wildfires
- Public Safety Power Shutoffs (PSPS)

Resources

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Safety Resources

- [SCE Outages & Safety](#)
 - [Working Around Electricity](#)
 - [Bilingual training materials](#) can be ordered: Contractor, Agriculture Workers, Tree Workers
 - First Responder [video](#) and [materials](#)
 - [Right Tree, Right Place](#)
- [Utility Arborist Association](#)
- [Safety | PG&E](#)

Q&A

