



CAL FIRE

Office of the State Fire Marshal

Community Wildfire Preparedness and Mitigation Webinar Series



May 22, 2023

Featuring:

- **Powerline Hazards**
- **Powerline Fire Prevention**
- **Pole and Conductor Clearance Requirements**



Welcome!

- ▶ The purpose of this webinar series is to host a live and interactive platform to discuss and educate on Community Wildfire Preparedness and Mitigation (CWPM) topics directly from our Office of the State Fire Marshal CWPM Staff.
- ▶ More information on the webinar series can be found any time at:
 - osfm.fire.ca.gov/wildfire-public-education/
 - If you experience technical difficulties during this presentation, please contact Kara Garrett at (916) 201-5539 or Kara.Garrett@fire.ca.gov.



Utility Wildfire Mitigation Program

Speaker Introduction

Jeff Fuentes

Division Chief

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Resources can be found at:

<https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/utility-wildfire-mitigation/>



Electrical Power Ignitions

On average 10% of Wildland Fires in State Responsibility Area's are Electrical Power Caused*



Account for:

- 6 of the Top 20 most destructive California Wildfires
- 3 of the Top 20 largest California Wildfires
- 3 of the top 20 deadliest California Wildfires

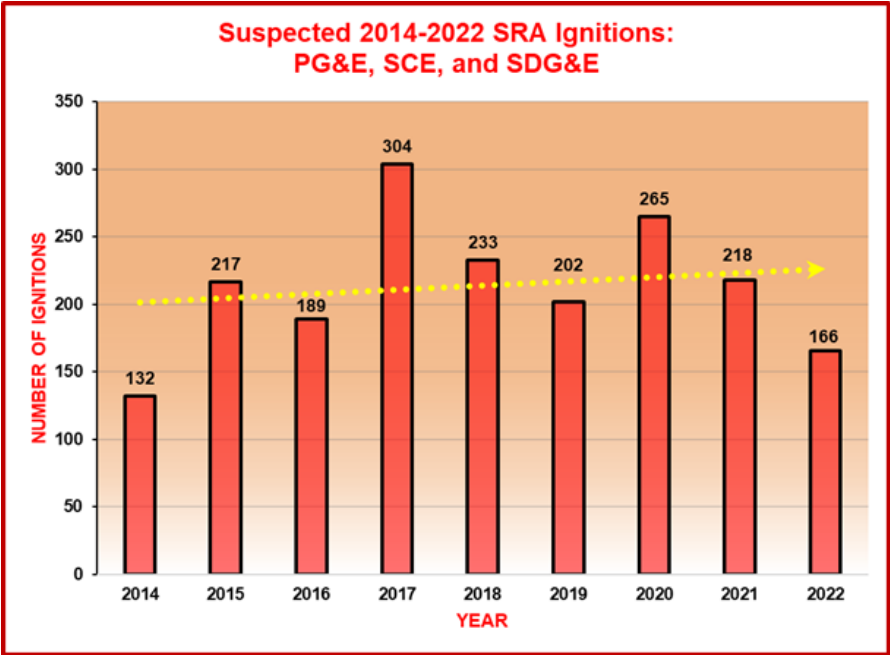
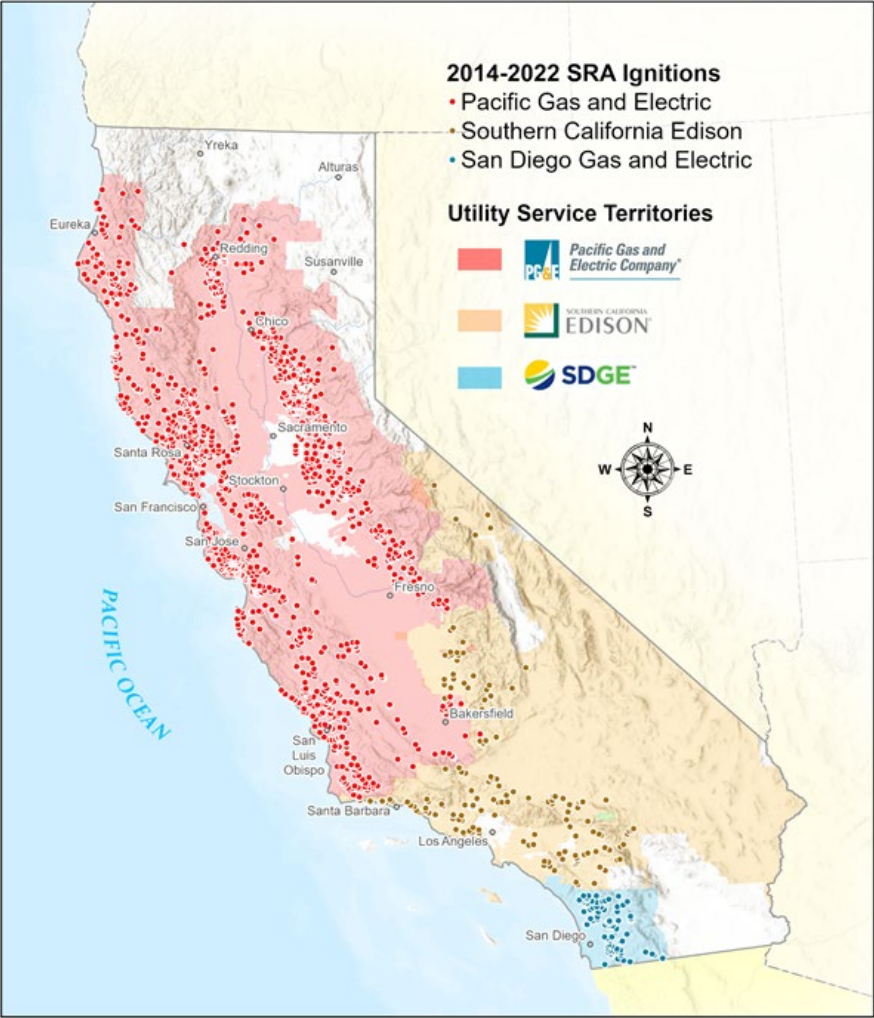


History

- ▶ Senate Bill 901
 - ▶ Wildfire Prevention Package
- ▶ PUC 8386.3
 - ▶ Wildfire Mitigation Plans
 - ▶ Investor-Owned Utilities (IOUs)
 - ▶ Provide consultation in the review



Investor-Owned Utility Ignitions 2014-2022



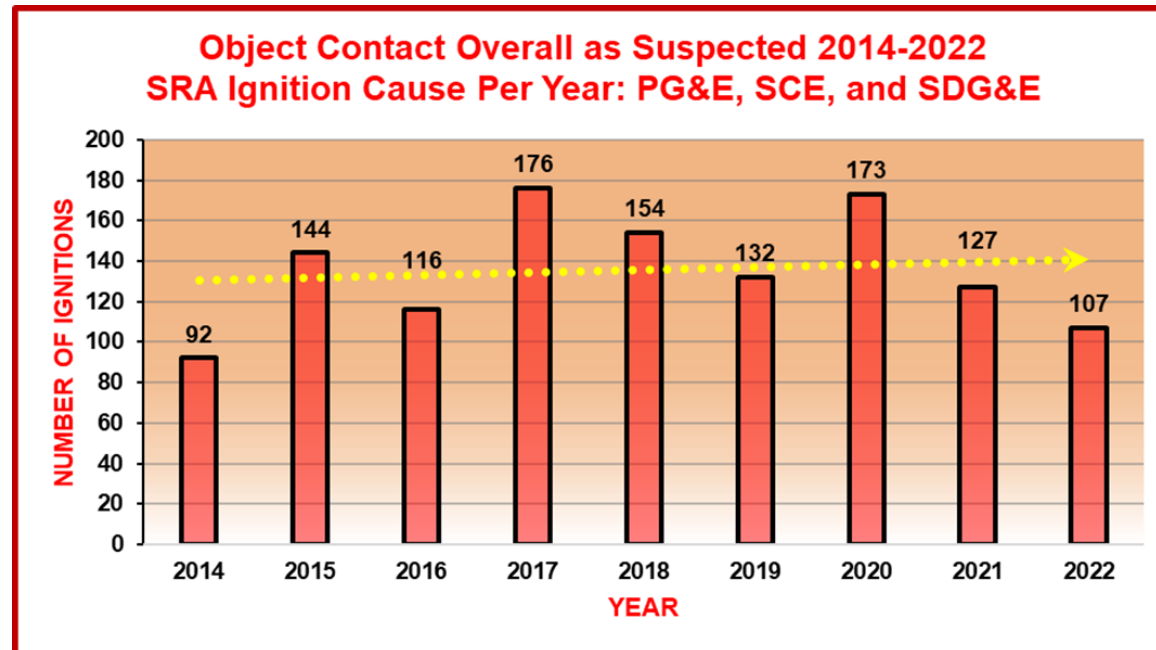
Ignition data based on annual CPUC Reportable Ignitions from 2014-2022 in the State responsibility Area (SRA)



Contact from Object

63% of utility-related ignitions are attributed to Contact from Object:

- Vegetation: 36%
- Animal: 13%
- Vehicle: 9%
- Balloon: 3%



Based on annual CPUC Reportable Ignitions from 2014-2022 in the State responsibility Area (SRA)



Vegetation Contact

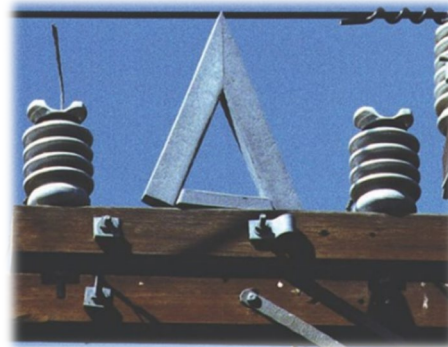
Tree hazards to powerlines or other electrical equipment



Animal Contact

Animal Protection

- Anti-Perch Guards
- Squirrel Guards
- Raptor Perchs
- Conductor Coverings



Balloon Contact

Mylar balloons cause ignitions and thousands of outages each year.



Vehicle Contact



Vehicles contacting Power poles cause ignitions

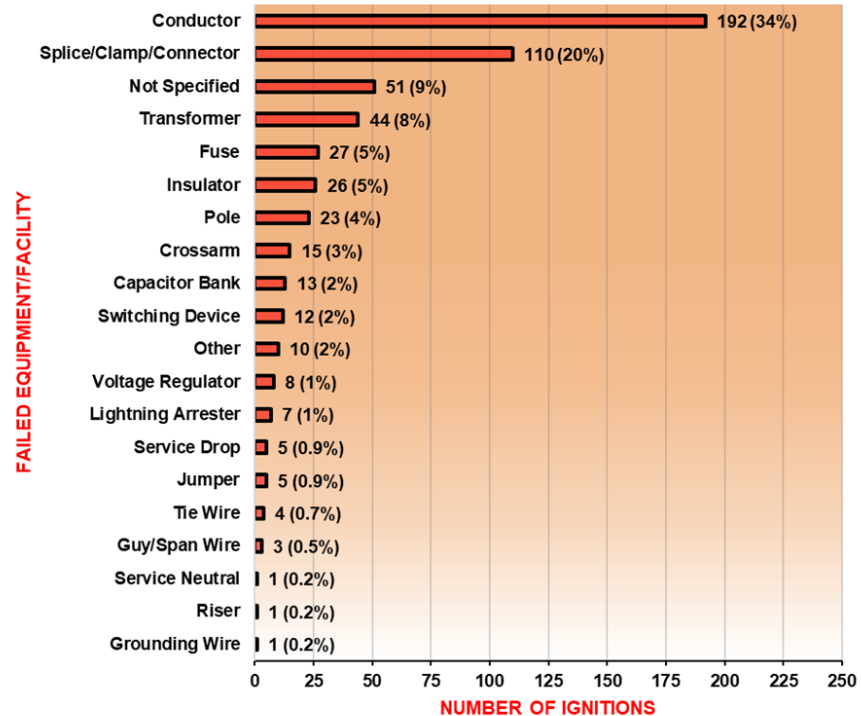


Powerline Equipment

29% of Utility-Related Ignitions are Powerline Equipment related



Suspected 2014-2022 SRA Equipment/Facility Failure Ignition Causes: PG&E, SCE, and SDG&E



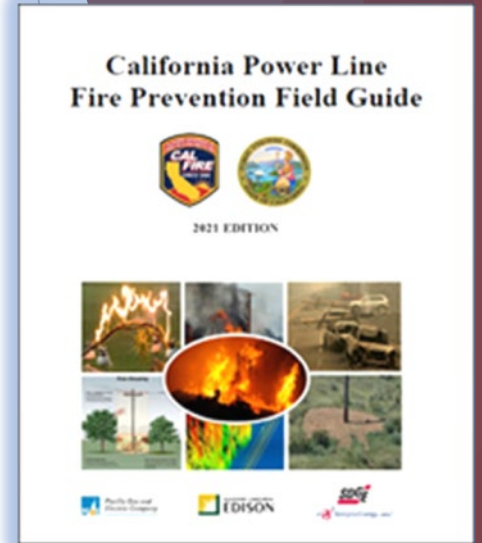
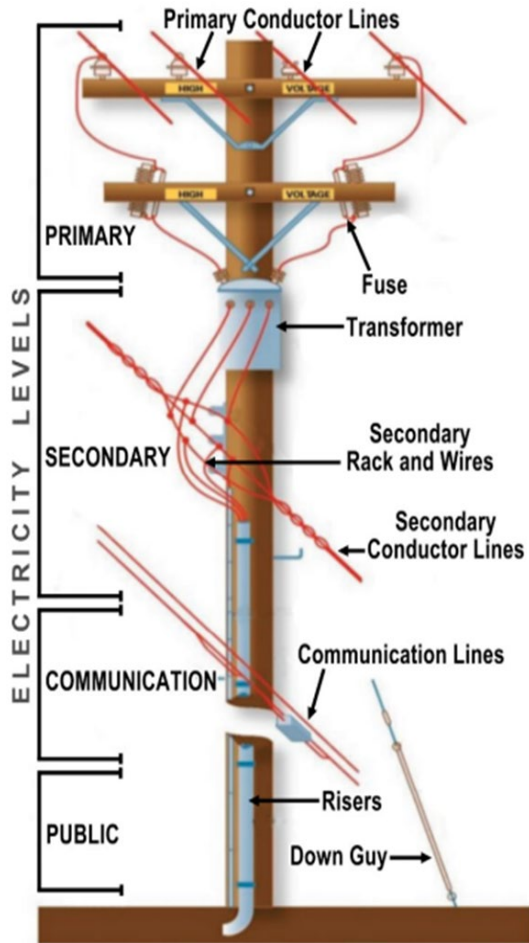
Powerline Fire Prevention Field Guide

Collaborative Document

- CAL FIRE
- USFS
- BLM
- CPUC
- Energy Safety
- Utilities

Includes:

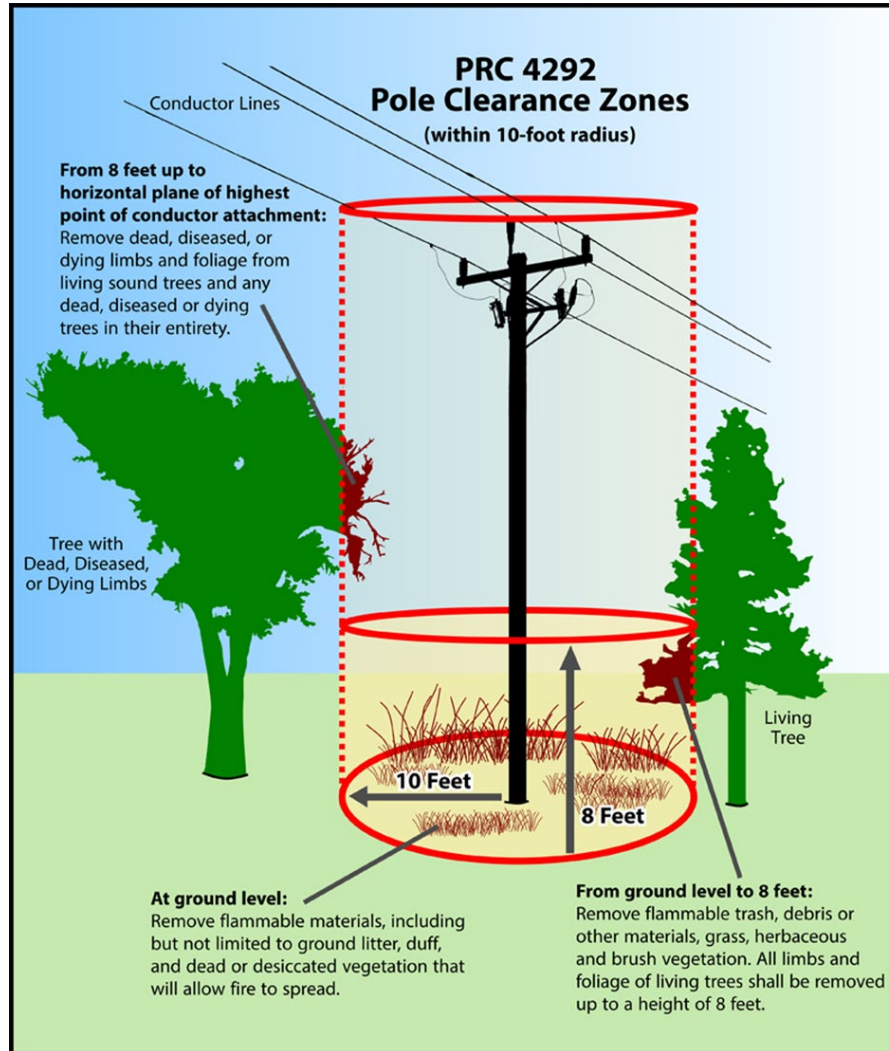
- Basic Power Systems, Levels of Power
- Codes, Rules, Regs, PRC4292/4293
- Practices to reduce utility-related ignitions.
- Practices for identifying and inspecting hazard trees
- Powerline Equip Identification





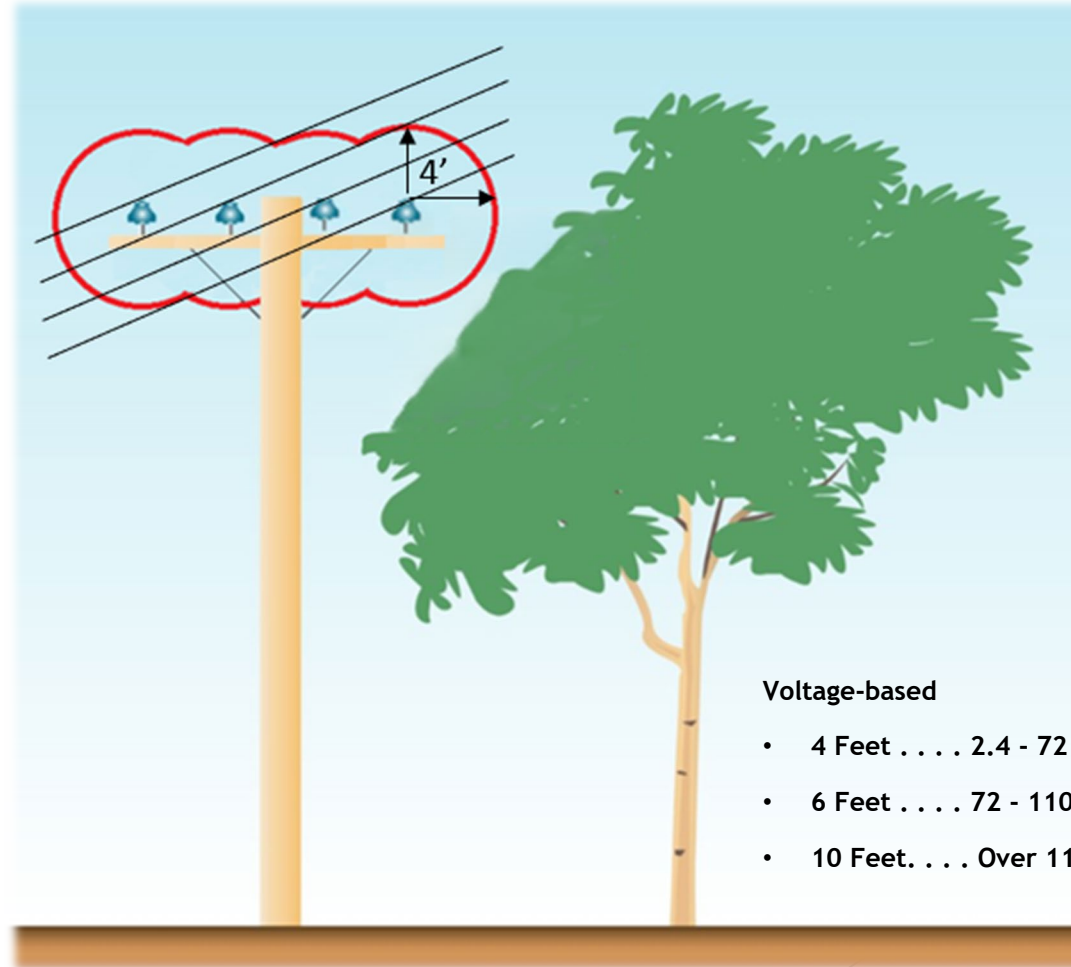
Vegetation Management

Public Resource Code (PRC) 4292 Pole Clearance



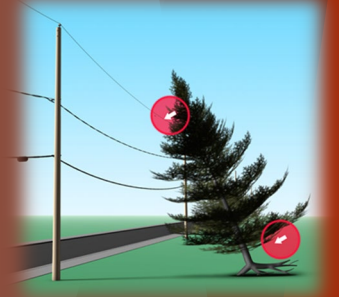
Vegetation Management

Public Resource Code (PRC) 4293
Minimum Conductor Clearances



Voltage-based

- 4 Feet 2.4 - 72 kV
- 6 Feet 72 - 110 kV
- 10 Feet. . . . Over 110 kV



Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard.



Grid Hardening

- Undergrounding Powerlines
- Utilizing Covered Conductor
- Installing Wildlife and Jumper Coverings.
- Composite Crossarms vs Wood Crossarms.
- Installing equipment that does not create arcs and sparks during normal operation.
- Fire resistive poles (Steel, Composite, Fire Resistant Wrapped Wood Poles).



Questions?

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Join us for our Next Webinar!

- ▶ Join us June 12th for a special presentation from the California Fire Safe Council!



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