

Public Safety Power Shutoff

Lessons Learned



CA Public Utilities Commission Overview

- The CPUC regulates services and utilities, protects consumers, safeguards the environment, and assures Californians' access to safe and reliable utility infrastructure and services. The essential services regulated include electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies.
- The CPUC regulates investor-owned electric utilities operating in California. This includes 4 million electric poles, 300,000 miles of lines, and 2200 substations.
 - 70,305 sq miles in high fire threat areas (43% of total land in CA).
- The CPUC does not regulate electric POUs.

Evolution of PSPS Rulemaking

- What is PSPS? A preventative measure of last resort if the utility reasonably believes that there is an imminent and significant risk that strong winds may topple power lines or cause major vegetation-related issues leading to increased risk of fire.
- In 2012, the CPUC ruled that California Public Utilities Code Sections 451 and 399.2(a) give electric utilities authority to shut off electric power in order to protect public safety.
- In 2018, the CPUC adopted a resolution to strengthen customer notification requirements before de-energization events and required utilities to submit a report within 10 days after each de-energization event.
- In May 2019, the CPUC issued the first decision in the PSPS proceeding (Phase 1 Decision). Phase 1 focused on IOU notification and communication guidelines for Public Safety Partners/Local Governments and customers (including Access and Functional Needs).
- In June 2020, the CPUC issued the second decision in the PSPS proceeding (Phase 2 Decision). Phase 2 expanded on notification and communication guidelines and also working groups/advisory boards, PSPS exercises, Community Resource Centers (CRCs), Restoration, Transportation/Communications/Water system resilience, and Transparency.
- Tentatively in 2021 Phase 3 of the proceeding will be developed.

Current PSPS Overview

- PSPS forecasting, implementation/restoration, and review/assessment. Who makes these determinations?
 - IOU's are ultimately responsible to operate their systems safely and effectively (PUC Section 451).
 - Forecasting, communication, implementation, and restoration are an IOU's responsibility.
 - Ten days after the final restoration of a PSPS event the IOUs must submit a Post PSPS report to the CPUC. IOU PSPS 10 Day Post Event reports are posted to our website (www.cpuc.ca.gov/psps).
- What factors are weighed when forecasting and then choosing to implement a PSPS?
 - Each IOU has their own process and factors that are considered when forecasting a PSPS event. The two main general factors are wind speed and fire potential.
 - IOUs consider implementing a PSPS event when the combination of strong, gusty winds and critically low humidity lies over areas with severely dry vegetative fuel loads, creating a high risk that vegetation blown into a power line or a spark from a power line could cause an ignition that could lead to a catastrophic wildfire.
 - Fire Potential Index (FPI) utilizes weather data, fuel conditions, and vegetation moisture content to rate the daily fire potential across a region.

Current PSPS Overview

- How are decisions communicated to state agencies and customers/public?
 - The CPUC, California Department of Forestry and Fire Protection (CAL FIRE), and CAL Office of Emergency Services (Cal OES) have different reporting requirements for PSPS events.
 - The CPUC is notified via email and phone as soon as the IOU activates it's EOC or PSPS protocols and then daily after that.
 - All IOUs have daily State Executive Calls that the CPUC, CAL FIRE and Cal OES participate in.
 - Approximately 72hrs out the IOU will notify the CPUC and other state agencies along with Public Safety Partners based on their own forecasting procedures. 48hrs out customers receive their first notifications. Additional notifications are sent at 24hrs and 1-4hrs out. Notifications are sent when restoration safety patrols are initiated along with when power is restored.
 - IOUs use phone, text, email, social media and webpages to communicate information.

PSPS Factors to Consider

- How has communication improved over the last few years? What mistakes were made early on that have been learned from? What challenges have persisted?
 - Platforms: Social Media, Radio, Internet(<https://prepareforpowerdown.com/>), Utility websites
 - Languages (written and verbal)
 - Consider the geographic and cultural demographics
 - Loss of communications/cell phone towers
 - Long term actual de-energization event (cellphones dead). Average in CA is 2 days, longest was over 6 days
 - Long-term warning period (repetitive warnings but no actual de-energization), false positive
 - No notice de-energization, false negative
 - Tourists/Non-Residents
 - Family members who live out of the area
 - Primary notifier responsibility
 - Access and Functional Needs (AFN) notifications. Medical baseline base list (customers must self-identify). Power dependent customers (life support or mobility needs). Redundant notification means to ensure positive contact (call, text, knock (door hanger)).
 - Customers behind Master Meters (mobile home parks).
 - Areas outside of fire threat but on the impacted circuit(s)
 - Standardizing definitions (Warning levels (“extreme”), critical facilities, Public Safety Partner

PSPS Factors to Consider

- What have been the primary areas of focus in improving PSPS in CA? How have these improvements been achieved?
 - Education:
 - Statewide public education campaign
 - Communication
 - Strategy:
 - Continually reducing the scope and scale of PSPS events. Driving towards zero PSPS
 - Access and Functional Needs (AFN) population incl Medical Baseline, Critical Care, low-income customers, customers with limited English, disabled customers and the elderly
 - Community Resource Centers (CRC)
 - Mitigation:
 - System Hardening (covered conductors, sectionalizing, microgrids/temporary generation, islanding)
 - Vegetation management
 - Battery backups for critical needs customers (AFN/Medical Baseline power dependent)

Questions?





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