Wildfire Mitigation Plan Overview: POUs

Wildfire Advisory Board Meeting
April 15, 2020

Introductions and Presentation Overview

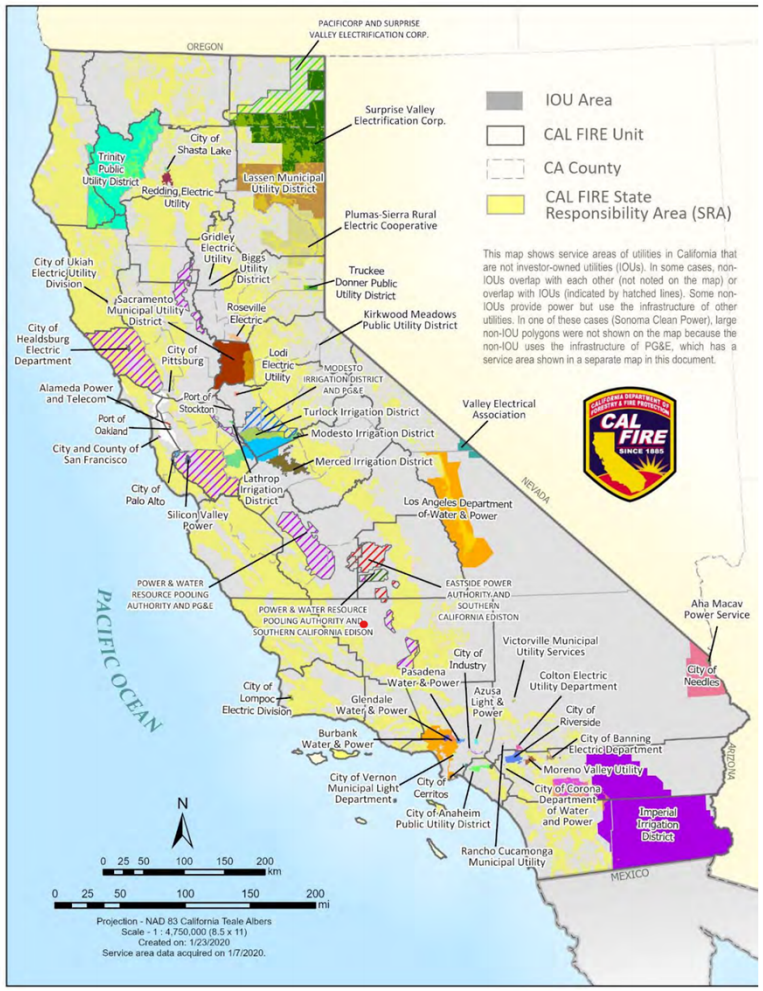


- Presenters
  - Scott Tomashefsky – Northern California Power Agency
  - Brian Wilbur – Los Angeles Dept of Water & Power (SCPPA Member)

- Presentation Objectives
  - Provide POU Overview and Describe WMP Obligations and Objective
  - Understand the Important Relationship Between POUs and the Local Communities
  - Offer Observations About the Range of POU Wildfire Mitigation Plans
  - Will address: 1) Vegetation Management, 2) De-energization Actions, 3) System Hardening, 4) Use of Innovative Technologies, and 5) Lessons Learned

POU Overview

- 40+ POUs throughout California
- Cover about 25% of state load
  - LADWP and SMUD account for approximately half of POU load
- WMPs are reviewed/approved by their local governing boards, and assessed by qualified independent evaluators
- Close relationships with communities, local government, fire officials, and other agencies within their respective jurisdictions
- Located in a variety of climate zones and fire risk zones
- Most are smaller distribution utilities
- Some are transmission dependent utilities of IOUs



Source: California Power Line Fire Field Guide, 2020 Draft

POU Obligations Under AB 1054

- POUs were required to have Wildfire Mitigation Plans in place by January 1, 2020

- POUs are required to do **annual updates** to the plans **and "comprehensive revisions" at least once every 3 years.**

- Plans must be **independently evaluated**
  - Legislation does not identify a specific time-frame/deadline for the evaluation
  - POUs have hired consultants to provide this evaluation





POU Wildfire Mitigation Plans
General Observations

- WMPs have a common goal: reduce risk of catastrophic wildfire ignition
- Geography, system design and community circumstance influence mitigation strategies
- Key Considerations
  - POUs deploy diverse range of technologies to mitigate a utility's specific risk profile (traditional and emerging)
  - POUs adopt system hardening measures where appropriate
  - POUs deploy a variety of de-energization approaches to engage communities and address public safety, including wildfire prevention
    - Some are impacted by IOU PSPS events as transmission dependent utilities





POU Wildfire Mitigation Plans

Key Consideration – Vegetation Management

- POU practices incorporate new clearance standards and often go beyond minimum requirements
  - Widened right of ways and clearances
  - Aggressive pruning
  - Regular evaluations of all trees, all T&D lines
  - Extra mid-cycle inspections in high fire threat districts
  - Removal of dead trees which pose increased risk
  - Use of clearance activities to support fire breaks
- Piloting new technologies and data analytics
- Employ qualified workers
- Actively pursuing additional funding to further accelerate vegetation management activities





POU Wildfire Mitigation Plans

Key Consideration - De-energization



- Patrol systems and use technology to identify equipment and infrastructure in need of maintenance or upgrades
- Disable automatic reclosing capabilities within high fire threat zones
- Coordinate with other local government agencies (fire, public works, emergency services, etc.) and with community members during events to share information more effectively throughout the entire jurisdiction
- Sectionalize circuits and have visibility to identify problems
- Observe developing weather, fuel status, and system conditions in real-time
- Design redundancies in residential systems to change feeder direction





POU Wildfire Mitigation Plans

Key Consideration - System Hardening

- Replace wood poles with ductile iron poles to withstand three-second wind gusts
- Replace bare wires with covered conductors in high fire threat zones
- Underground short spans where feasible and effective
- Install CalFire exempt equipment as appropriate
- Replace wood with fiberglass cross arms and wire spacers to reduce downed wires along with cutout and dead-end conductor and insulator covers, as appropriate



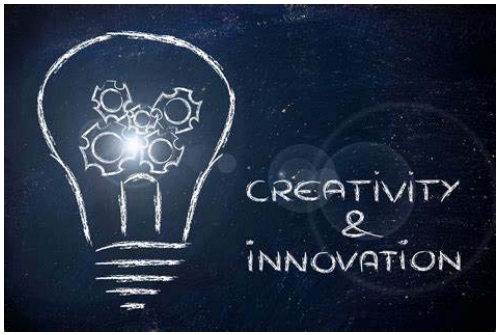


POU Wildfire Mitigation Plans

Key Consideration - Use of Innovative Technologies



- Utilize wildfire cameras to allow response teams to verify and confirm location of wildfires; and integrated responses with local fire departments
- Field-deployed fault interrupters minimize impacts to customers and expedite restoration
- Drones with infrared and regular camera capabilities help identify hotspots on circuits
- Identify line clearance and vegetation threats through the use of lidar and hyperspectral imaging
- Apply data analytics to improve situational awareness
- Use remote-controlled field reclosers with arc detection technology





POU Wildfire Mitigation Plans

Key Consideration - Lessons Learned

- Covered conductors and resilient materials can be critical in high fire threat areas – our vegetation management plans may not prevent all ignitions.
- Annual wildfire emergency trainings help ensure key staff are up to date on wildfire mitigation efforts and procedures to ensure efficiency during a wildfire event.
- Communication protocols for community education and preparation are important tools for wildfire safety.
- Even with technology, physical inspection of poles is critical to mitigating risk



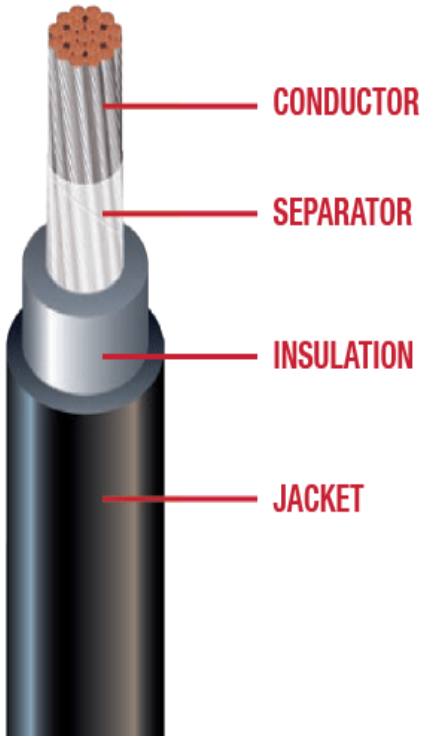


POU Wildfire Mitigation Plans

Best Practices – Example

- Installing covered/insulated “tree wire” in areas where there are no other mitigating measures to minimize the likelihood of sparking wildfires due to vegetation contacts, rogue animals, balloons, etc
- Installing “falling wire” protective devices on transmission lines that go over mountains that have heavy vegetation and could easily spark a wildfire if lines were to fall into the vegetation below

Covered Conductor



POU Wildfire Mitigation Plans
Final Thoughts

POU collaboration and sharing of best practices are critical to success of statewide wildfire mitigation effort.

- POU plans memorialize many of the best practices that have long been used to protect local communities
- Mitigation approaches that are appropriate for each utility may differ and metrics for measuring the success of these approaches in reducing individual utility risks must be tailored for each utility's risk profile
- Technology will play an increasingly important role in the ongoing effort to mitigate potential wildfire threats
- Circumstances unique to each POU service territory provide opportunities to support statewide efforts to reduce wildfire risk
- Utilities will continue to prioritize ignition prevention measures that address greatest wildfire risks

Questions or Comments?

