



**Agenda Item A.1
PRESENTATION
Meeting Date: August 21, 2018**

TO: Mayor and Councilmembers
FROM: Michelle Greene, City Manager
SUBJECT: Southern California Edison's Public Safety Power Shut Off

RECOMMENDATION:

Receive a presentation by Rondi Guthrie from Southern California Edison (SCE) on their Public Safety Power Shutoff (PSPS) Plan.

BACKGROUND:

The purpose of this presentation is for the City Council to hear a presentation from SCE on their PSPS Plan. The presentation will include SCE's reasons for creating the plan, what wildfire mitigation measures SCE is undertaking, what the PSPS plan entails, how SCE will communicate to the City and the community in advance of a shutoff, and what impacts the plan may have on Goleta.

Reviewed By:

Carmen Nichols
Deputy City Manager

Approved By:

Michelle Greene
City Manager

ATTACHMENTS:

1. Southern California Edison Wildfire Mitigation, Safety & Grid Resiliency dated August 21, 2018, Powerpoint Presentation

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Southern California Edison Wildfire Mitigation, Safety & Grid Resiliency dated
August 21, 2018, Powerpoint Presentation

SOUTHERN CALIFORNIA EDISON

Wildfire Mitigation, Safety & Grid Resiliency

Goleta City Council Meeting

August 21, 2018

Presenters: Rondi Guthrie and Robert Stiens



Energy for What's Ahead®

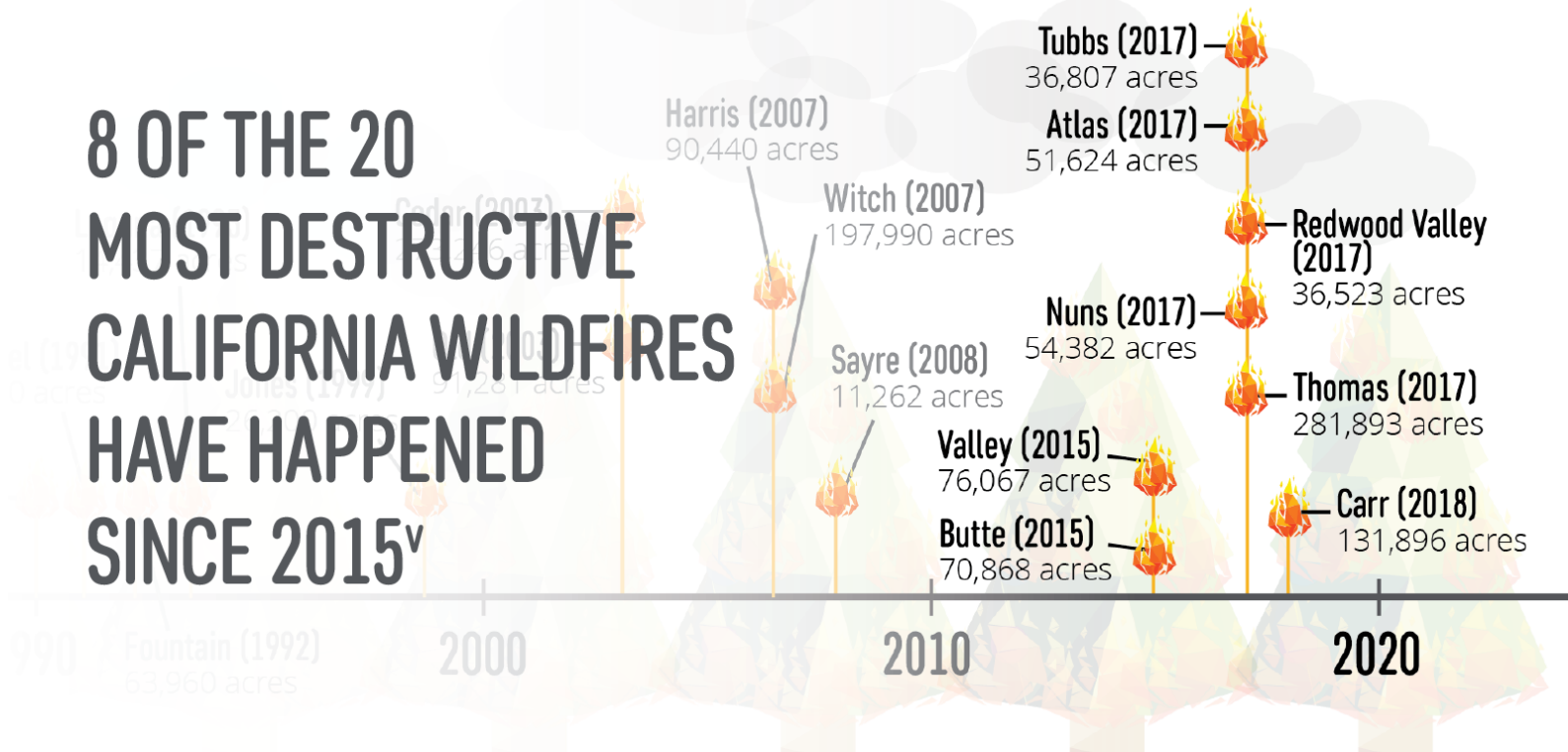


CALIFORNIA'S WILDFIRE RISK

Year-Round Fire Season: Changes to California's climate means that the traditional notion of a fire "season" no longer exists

Hazardous fuel is building up: 9M acres of land contain ready-to-burn kindling from nearly 129M trees that have been killed or weakened by drought and bark beetle infestation

8 OF THE 20
MOST DESTRUCTIVE
CALIFORNIA WILDFIRES
HAVE HAPPENED
SINCE 2015^v



SCE'S WILDFIRE MITIGATION STRATEGY

We have long taken substantial steps to reduce the risk of wildfires, and we continue to proactively enhance our operational practices and infrastructure through our comprehensive wildfire mitigation strategy

Long-Standing Operational Practices

- Special procedures during Red Flag Warning
- Automated Recloser Blocking
- Restricted Work Practices
- Operation Santa Ana (joint patrol with fire agencies prior to fire season)

Investing in System Hardening of Electric Grid

- Fire-resistant Poles
- Covered Conductor
- Current Limiting Fuses
- Next-Gen Engineering Technology

Bolstering Situational Awareness Capabilities

- Fire and Severe Weather Monitoring
- Rapidly Advancing Analytics to Improve Weather Prediction

Enhancing Operational Practices

- Extra-Sensitive Relay Settings
- Public Safety Power Shutoff & Community Engagement
- Vegetation Management

SYSTEM HARDENING ELEMENTS

Hardened System



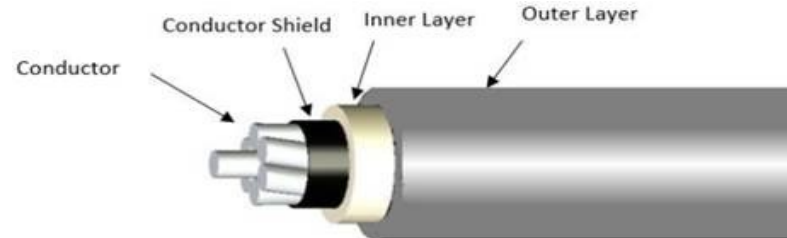
Fire-resistant poles,
crossarms and insulators

Covered conductors/
insulated wire wrap

Fast-acting fuses and
advanced lightning
arrestors



Cross Section of Covered Conductor



SCE crews are installing \approx **4,000** circuit miles of covered conductor planned in a multi-year **Grid Resiliency Program** across the high fire risk areas in advance of CPUC application filing.

Current Limiting Fuses



**Fault
Tamer**



X-Limiter CLF

VEGETATION MANAGEMENT

- **20+** in-house certified arborists
- **800+** pruning contractors with **60** more crews added June/July 2018
- **≈ 900,000** trees inspected annually
- **≈ 700,000** pruned per year; **400,000** trees in high fire risk areas
- Dead, dying, diseased tree removal; total drought and bark beetle trees removed in 2017 was **39,000**
- Expanding use of Light Detection and Ranging (LiDAR) technology, an advanced laser surveying method, to enhance vegetation management in remote areas of our service territory
- Joint patrols with fire agencies

FIRE AND SEVERE WEATHER MONITORING



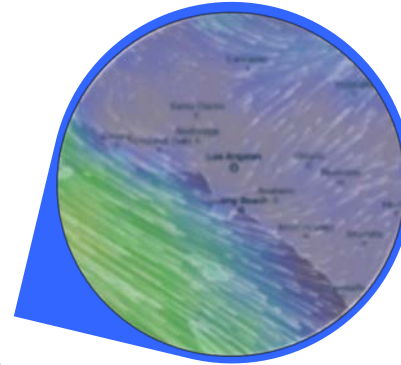
Weather Stations

- Collects hi-resolution local weather data
- Enables more accurate forecasting



Situational Awareness Center

- 24/7 weather and situational awareness monitoring
- Co-located with SCE's Emergency Operations Center and Watch Office
- SCE meteorologists on-site



High-Resolution Weather Data Visualization

- Visualization of weather conditions at circuit level
- Alerts when conditions reach thresholds



Fire Monitoring Cameras

- High-Definition
- Remote-controlled pan-tilt zoom

PRACTICE OF LAST RESORT: PUBLIC SAFETY POWER SHUTOFF

In alignment with its operational safety practices, SCE may proactively shut off power in high fire risk areas when extreme fire conditions present a clear and imminent danger to public safety

- Operational practice of last resort that may reduce fire risk in limited, high fire risk areas
- SCE is committed to service reliability: de-energizing customers is not something we take lightly and is only sparingly used in the most extreme conditions.
- In light of increased wildfire risk and public safety, SCE is evaluating more frequent use of this measure
- SCE will make every effort to notify local governments and customers ahead of time – especially critical care and medical baseline customers
- Power restoration begins after local conditions have improved and safety checks have been performed

PUBLIC SAFETY POWER SHUTOFF - CONSIDERATIONS

We consider many factors before making the decision to turn power off. Factors include but are not limited to, the following:

- Real time information from trained personnel positioned locally in high fire risk areas
 - Input from SCE Fire Management experts
- Information from technologies like weather stations and high resolution weather data
- Input from local and state fire authorities and Emergency Management Personnel
 - Awareness of mandatory or voluntary evacuation orders in place
 - Expected impact of service interruption on essential services
 - Location of evacuation centers
 - Other emergency operations



PUBLIC SAFETY POWER SHUTOFF: MONITORING

Last resort public safety measure to mitigate wildfire risk



4-7 DAYS AHEAD

3 DAYS AHEAD

2 DAYS AHEAD

1 DAY AHEAD

POWER SHUTOFF

POWER
RESTORATION

PLANNING AND MONITORING

OUTAGE

Thank You