Thank you for joining us this evening.

This meeting is being recorded.

Please note, your camera, microphone, and reactions are disabled for this meeting.

To add closed captioning, please click the three dots found at the top right of the tool bar. In the dropdown menu, select turn on live captions.

To submit a question, use the Q&A window throughout the session.

Please only submit questions that are relevant to the presentation and topics being presented.
Our Commitment to California
Keeping our communities safe from wildfires
HOW TO SUBMIT A QUESTION

You can submit a question using the Q&A window throughout the session.

Please only submit questions that are relevant to the presentation and topics being presented.
PRESENTERS

Gabriel De La Cerda
Emergency Management Specialist
Fresno County OES

Brian Thoburn
Government Relations Manager
Local Public Affairs

Greg Ferree
Vice President Vegetation Inspections & Operational Services

Cameron McPherson
Senior Manager Wildfire Operations

Carolyn Sims
Senior Manager Community & Climate Equity
AGENDA

• 2021 Wildfire Season
• SCE’s Wildfire Mitigation Activities
• Public Safety Power Shutoffs
• Reducing the Need for PSPS
• PSPS Communications
• Customer Programs & Resources
• Q&A
An emergency can happen at any time.

Have a Plan & Make a Kit
You can help your family be prepared for any emergency situation with a safety preparedness plan, an emergency kit with some basic supplies and advance planning. Whether a storm, an earthquake, a wildfire or a flood comes our way, preparedness will help everyone cope better and stay safer. Learn more at sce.com/beprepared.

Wildfire Preparedness Tips:
CAL FIRE (readyforwildfire.org)
California experienced another year of extreme wildfire activity, exacerbated by intensifying drought. Dry vegetation and strong winds continue to threaten our communities during year-round fire season.

2021 WILDFIRE SEASON

6 OF THE 7 LARGEST CALIFORNIA WILDFIRES HAVE HAPPENED SINCE 2020*

*Source: https://www.fire.ca.gov/media/4jandlhh/top20_acres.pdf
REDUCING WILDFIRE RISK IN OUR COMMUNITIES

- **Situational awareness, weather modeling and fire spread modeling**
- **Public Safety Power Shutoff criteria:** Fire weather and PSPS conditions include strong winds, very dry vegetation and low humidity
- **Aerial Fire Suppression**
- **Undergrounding**
- **Vegetation Management**
  - Pole Brushing
  - Line Clearing
- **Hazard Tree Management Program**
- **Emergency Operations Center**
- **Substation**
- **Wildfire Stations**
- **Wildfire Cameras**
- **Customer Resources and Support**
- **Critical Care Back-up Battery program and rebates on portable power stations, generators and battery storage**
- **Equipment Inspections**
- **System hardening and advanced technologies:** covered conductor, fire-resistant poles and cross arms, fast-acting fuses, sectionalizing devices and new technologies such as Rapid Earth Fault Current Limiter (REFCL)
- **Covered Conductor**
- **Microgrids**
Covered conductor is a very valuable tool to expeditiously and cost-effectively reduce wildfire risk specific to SCE.

Undergrounding considered for certain locations based on risk profile

**Geography**
Contact from vegetation and other objects is a key risk factor in much of SCE’s area. Covered conductor is very effective in mitigating these risks.

**Cost to Implement**
Covered conductor installation costs significantly lower than undergrounding.
Undergrounding costs vary depending on construction methods, locational, and operational factors.

- Cost per mile $ in Millions:
  - Underground: ~5.5
  - Covered Conductor: ~0.6
  - Insulated wire: ~0.6
  - Insulated wire ~65–90% lower

- Actual installed miles of covered conductor vs. hypothetical undergrounded miles:
  - ~A few hundred
  - ~3,260

**Execution Speed**
Dovered conductor can be deployed within 16–24+ months, and sometimes faster.
Undergrounding generally takes 25–48+ months.

**Unique Factors**
Undergrounding is considered where there is:
- High burn frequency
- Limited egress
- Wind speeds exceeding covered conductor PSPS thresholds
- Exceptionally high potential consequence (>10,000 acres)

**Vegetation Type**
- Evergreen Forest
- Deciduous Forest
- Broadleafed Forest
- Chaparral
- Grassland
- Desert Scrub

*Click to view larger image*

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1. Based on data provided in SCE’s 2022 WMP Update
2. Through March 31, 2022
3. Undergrounded miles is a hypothetical approximation of underground lines that could have been constructed through March 31, 2022, based on SCE’s assumptions and experience with planning and executing undergrounding projects.
SCE estimates its wildfire mitigation and PSPS measures have reduced the risk of damage from catastrophic wildfires by **65% to 70%**, relative to pre-2018 levels.

**ONGOING WILDFIRE MITIGATION EFFORTS**

~34% of overhead wire in high fire risk areas replaced with covered conductor

**Suite of mitigations** include system hardening, annual equipment inspections, vegetation management and situational awareness measures

**IMPROVED PSPS EXECUTION & CUSTOMER SUPPORT**

73% reduction in PSPS outage time in 2021 on frequently impacted circuits

81,000 customers removed from scope from exceptions and switching protocols

64 Community Resource Centers available

**AERIAL FIRE SUPPRESSION SUPPORT**

Contributed $18 million for the creation of the quick reaction force of the world’s largest helitankers

Used on more than 50 fires in 2021, helping to suppress fires in its early stages

---

1. A wildfire directly causing one or more deaths, damaging or destroying more than 500 structures, or burning more than 140,000 acres of land
2. Though March 31, 2022
3. Based on 2021 weather and fuel conditions
PUBLIC SAFETY POWER SHUTOFFS

- A tool of last resort used during dangerous fire conditions (weather and fuels)
- De-energizing lines to prevent a spark from our equipment starting a significant wildfire
- Primarily impacts circuits in high fire risk areas
- Use of multiple methods to notify customers and partners in affected areas before, during and after a PSPS event
- In 2021, continued PSPS improvements and reduced frequency, scope and duration of PSPS
HOW TO SUBMIT A QUESTION

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### Covered Conductor

Replaced an additional **1,500** miles of bare wire with covered conductor; **700** miles of expedited grid hardening to raise PSPS threshold prior to peak wind season. Plan to replace **1,100** miles in 2022; **270** miles of expedited grid hardening.

### Segmentation

Installed **23** additional remote-controlled sectionalizing devices to segment and isolate circuits during PSPS. Plan to add **15** devices in 2022.

### Weather Stations

Installed **400** additional weather stations for improved forecasting and accuracy of PSPS operations. Plan to add **150** weather stations in 2022.

### Switching Protocols

Removed **81,000** customers from PSPS scope through exceptions and switching protocols.

### Operational Protocols

Utilized up-to-date information on ground conditions (e.g., lack of vegetation) to assess wildfire threat and the need for PSPS.

---

**REDUCING THE NEED FOR PSPS**

**2021 ACHIEVEMENTS AND 2022 PLANS**
### 2021 PSPS EVENTS

#### Service Area Compared to 2020

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Customers Interrupted</th>
<th>Circuit Interruptions</th>
<th>Customer Minutes of Interruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Fire Season</td>
<td>~348K</td>
<td>~584</td>
<td>~388M</td>
</tr>
<tr>
<td>2021 Fire Season</td>
<td>~85K</td>
<td>~124</td>
<td>~105M</td>
</tr>
<tr>
<td>Delta</td>
<td>↓76%</td>
<td>↓79%</td>
<td>↓73%</td>
</tr>
</tbody>
</table>

#### Fresno County Compared to 2020

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Customers Interrupted</th>
<th>Circuit Interruptions</th>
<th>Customer Minutes of Interruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Fire Season</td>
<td>~4</td>
<td>~1</td>
<td>~8K</td>
</tr>
<tr>
<td>2021 Fire Season</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Delta</td>
<td>↓100%</td>
<td>↓100%</td>
<td>↓100%</td>
</tr>
</tbody>
</table>

*100% REDUCTION IN CUSTOMER MINUTES OF INTERRUPTION IN FRESNO COUNTY*

*Madera, Tulare and Tuolumne Counties did not experience any PSPS events*
### Completed

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>SINCE 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTRIBUTION EQUIPMENT INSPECTIONS</td>
<td>765 inspections</td>
<td>7,568 inspections</td>
</tr>
<tr>
<td>TRANSMISSION EQUIPMENT INSPECTIONS</td>
<td>93 inspections</td>
<td>1,761 inspections</td>
</tr>
<tr>
<td>COVERED CONDUCTOR</td>
<td>1 circuit miles installed</td>
<td>18 circuit miles installed</td>
</tr>
<tr>
<td>FAST-ACTING FUSES</td>
<td>1 fuses installed or replaced</td>
<td>41 fuses installed or replaced</td>
</tr>
<tr>
<td>SECTIONALIZING DEVICES</td>
<td>0 devices installed</td>
<td>0 devices installed</td>
</tr>
<tr>
<td>HAZARD TREE MANAGEMENT</td>
<td>15,851 trees assessed</td>
<td>52,146 trees assessed</td>
</tr>
<tr>
<td>WEATHER STATIONS</td>
<td>4 weather stations installed</td>
<td>22 weather stations installed</td>
</tr>
<tr>
<td>HIGH-DEFINITION WILDFIRE CAMERAS</td>
<td>0 cameras installed</td>
<td>0 cameras installed</td>
</tr>
<tr>
<td>COMMUNITY RESOURCE CENTERS</td>
<td>0 sites available</td>
<td>0 sites available</td>
</tr>
<tr>
<td>COMMUNITY CREW VEHICLES</td>
<td>8 vehicles available throughout SCE's service area</td>
<td>8 vehicles available throughout SCE's service area</td>
</tr>
</tbody>
</table>

SCE tracks wildfire initiative progress by SCE districts and extrapolates to the county level as a reasonable approximation. There may be additional circuit miles of covered conductor installed due to fire restoration work.

SCE’s service area covers about 14% of Fresno County. About 2,790 customer accounts are served by circuits in high fire risk areas.
Wildfire Mitigation Activities
TULARE COUNTY

2021 Year-End Progress Report
Data as of 12/31/21

SCE tracks wildfire initiative progress by SCE districts and extrapolates to the county level as a reasonable approximation. There may be additional circuit miles of covered conductor installed due to fire restoration work.

SCE's service area covers about 84% of Tulare County. About 16,500 customer accounts are served by circuits in high fire risk areas.

<table>
<thead>
<tr>
<th>Completed</th>
<th>2021</th>
<th>SINCE 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTRIBUTION EQUIPMENT INSPECTIONS</td>
<td>6,935 inspections</td>
<td>29,858 inspections</td>
</tr>
<tr>
<td>TRANSMISSION EQUIPMENT INSPECTIONS</td>
<td>1,102 inspections</td>
<td>3,798 inspections</td>
</tr>
<tr>
<td>COVERED CONDUCTOR</td>
<td>83 circuit miles installed</td>
<td>179 circuit miles installed</td>
</tr>
<tr>
<td>FAST-ACTING FUSES</td>
<td>6 fuses installed or replaced</td>
<td>561 fuses installed or replaced</td>
</tr>
<tr>
<td>SECTIONALIZING DEVICES</td>
<td>0 devices installed</td>
<td>0 devices installed</td>
</tr>
<tr>
<td>HAZARD TREE MANAGEMENT</td>
<td>7,942 trees assessed</td>
<td>20,888 trees assessed</td>
</tr>
<tr>
<td>WEATHER STATIONS</td>
<td>13 weather stations installed</td>
<td>44 weather stations installed</td>
</tr>
<tr>
<td>HIGH-DEFINITION WILDFIRE CAMERAS</td>
<td>8 cameras installed</td>
<td>8 cameras installed</td>
</tr>
<tr>
<td>COMMUNITY RESOURCE CENTERS</td>
<td>4 sites available</td>
<td>4 sites available</td>
</tr>
<tr>
<td>COMMUNITY CREW VEHICLES</td>
<td>8 vehicles available throughout SCE's service area</td>
<td>8 vehicles available throughout SCE's service area</td>
</tr>
</tbody>
</table>

Map 1. High Fire Risk Areas
- Tier 2 – Elevated Fire Threat
- Tier 3 – Extreme Fire Threat
- SCE Service Area
- County Lines

About 16,500 customer accounts are served by circuits in high fire risk areas.
Notifications
• SCE provides PSPS notifications through various communication channels
  • SCE Account Holders (email, text, and voice call)
  • Address Level Alerts
• Sign up to stay informed before, during and after a PSPS event

SCE Outage Map
• Consolidated outage map that incorporates PSPS outages at sce.com/outagemap
SCE CUSTOMER PROGRAMS & RESOURCES

CUSTOMER RESOURCE CENTERS & COMMUNITY CREW VEHICLES

• Services offered: information, charging of mobile devices, assistive technology/medical devices, PSPS outage alert enrollment support, access to water, light snacks, ice and ice vouchers, restrooms, and small insulated bags to keep medication cool

• Translations services for over 120 languages including American Sign Language (ASL)

CUSTOMER PROGRAMS

• Partnered with 211 to help customers with Access and Functional Needs (AFN) develop a resiliency plan and enroll in eligible assistance programs

• 211 provides specialized referrals for customers with AFN experiencing PSPS. Services include connecting customers to shelf-stable food, hot meal delivery, transportation and/or temporary shelter

• SCE will improve communication methods, including videos utilizing ASL for marketing and PSPS notifications

CUSTOMER RESILIENCY EQUIPMENT

• Critical Care Backup Battery program and the In-Event Battery Loan pilot provide eligible customers with a portable backup battery to power assistive technology/medical devices during a PSPS event

• Rebates on portable batteries and generators for customers residing in high fire risk areas on marketplace.sce.com
Website: sce.com/wildfire
Energized by Edison Stories & Videos: edison.com/wildfire-safety

Email: wildfireoutreach@sce.com
Social Media: @SCE on Twitter & Facebook
SCE Customer Support: 1-800-655-4555

**LEARN MORE**
- Visit our website to learn more about our wildfire safety efforts and Public Safety Power Shutoffs (PSPS)
- Provide feedback through the survey

**SIGN UP**
- PSPS alerts
- SCE's Medical Baseline program
- SCE programs and rebates

**BE PREPARED**
- Be prepared with a safety preparedness plan, some basic supplies and advance planning
- Power outage tips
HOW TO SUBMIT A QUESTION

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THANK YOU

Website: sce.com/wildfire
Energized by Edison Stories & Videos: edison.com/wildfire-safety
Email: wildfireoutreach@sce.com
Social Media: @SCE on Twitter & Facebook
SCE Customer Support: 1-800-655-4555
Wildfire Mitigation Activities
SERVICE AREA

2021 Year-End Progress Report
Data as of 12/31/21

Distribution Equipment Inspections
- 2021 Completed/Target: 179,600/163,000 inspections
- 110% completed

Transmission Equipment Inspections
- 2021 Completed/Target: 20,800/16,800 inspections
- 124% completed

Insulated Wire (Covered Conductor)
- 2021 Completed/Target: 1,500/1,000 circuit miles installed
- 150% completed

Fast-Acting Fuses
- 2021 Completed/Target: 350/330 fuses installed or replaced
- 106% completed

Hazard Tree Management
- 2021 Completed/Target: 131,400/120,000 trees assessed
- 110% completed

Wildfire Mitigation Activities
SERVICE AREA

Weather Stations
- 2021 Completed/Target: 400/375 weather stations installed
- 107% completed

High-Definition Wildfire Cameras
- Cameras currently provide visibility to about 90% of our high fire risk areas (HFRA) and the planned additional cameras as in 2022 and beyond will increase coverage to nearly all of HFRA
- Completed Since 2018
- 166 cameras installed

Aerial Fire Suppression Resources
- SCE contributed $18 million to support the creation of a quick reaction force of aerial firefighting assets across counties in SCE’s service area to coordinate and reach wildfires in their early stages. These unique water and fire retardant dropping helicopters have the capability to operate day and night.
- Completed Since 2018

Critical Care Backup Battery
- 2021 Completed
- 167% completed

Community Resource Centers
- 64 sites available

Community Crew Vehicles
- 8 vehicles available

Data as of 9/30/21
Map 2. Situational Awareness

- Weather Stations
- Tier 2 – Elevated Fire Threat
- Tier 3 – Extreme Fire Threat
- SCE Service Area
- County Lines

Weather Stations:
22 weather stations installed.
Visit sce.com/weatherstations for real-time weather data.
Wildfire Mitigation Activities
TULARE COUNTY

2021 Year-End Progress Report
Data as of 12/31/21

Features depicted herein are intended for informational purposes only. Distances and locations may be distorted and icons may be overlapping at this scale.

**Weather Stations:**
44 weather stations installed. Visit sce.com/weatherstations for real-time weather data.

**HD Wildfire Cameras:**
8 high-definition wildfire cameras installed. Visit alertwildfire.org to view the live camera feeds.
HELPFUL INFORMATION & RESOURCES

SCE Notifications
• Sign up for PSPS alerts – sce.com/pspsalerts
• Sign up for the Energized by Edison Wildfire Mitigation Newsletter – energized.edison.com/newsletter

Situational Awareness
PSPS maps and information – sce.com/psps
• PSPS decision making – sce.com/pspsdecisionmaking
• Role of weather in PSPS – sce.com/fireweather
• CPUC wildfire maps – ia.cpuc.ca.gov/firemap/
• Wildfire cameras – alertwildfire.org
• Weather stations – sce.com/weatherstations

Preparedness
• SCE emergency preparedness – sce.com/beprepared
• CAL FIRE preparedness – readyforwildfire.org

Vegetation Management
• Vegetation Management – sce.com/safety/power-lines; contact 1-800-655-4555 or safetrees@sce.com

Customer Programs & Rebates
• SCE Customer Programs & Resources – sce.com/customerresources
• SCE Marketplace (rebates and programs) – marketplace.sce.com
• SCE Medical Baseline Program – sce.com/medicalbaseline
• Self Generation Incentive Program (SGIP) – sce.com/sgip or selfgenca.com
• SCE Customer Support: 1-800-655-4555

Community Meetings
• Join SCE’s wildfire safety community meetings – sce.com/wildfiresafetymeetings

Energized by Edison
• Stories and videos on SCE’s wildfire mitigation efforts and PSPS – edison.com/wildfire-safety
VIDEO: INSTALLING COVERED CONDUCTOR AERIALLY