

SCE's 2020 Planning for Public Safety Power Shutoffs

California Public Utilities Commission Briefing

Aug. 11, 2020

Executive Summary

- SCE does not take the decision to de-energize lightly. We recognize the hardships a de-energization event can create; this is why SCE is committed to informing and supporting the communities we serve
 - PSPS remains a vital tool in protecting public safety and mitigating wildfire risk
- SCE has refined its approach to PSPS based on lessons learned from 2019, Commission guidance, and feedback from customers, communities and stakeholders
- With the grid improvements SCE has made since last year, under the same weather conditions as 2019, we expect to see a **30 percent reduction** in the number of customers affected by future PSPS events
 - Approximately half of these customers are not expected to experience PSPS at all in 2020
- SCE continues to make modifications ahead of the 2020 fire season focusing on:
 - SCE's preparedness and decision-making tools during PSPS
 - Community information, engagement and outreach
 - Stakeholder collaboration for emergency preparedness and response
 - Customer care during PSPS
- SCE is implementing changes to its PSPS approach during the COVID-19 pandemic
 - Recognizing greater impact of de-energizations for customers working, learning and caring for loved ones at home
 - Balancing assistance to customers while following CDC guidance and state and local orders

Recap of 2019 PSPS Events & Lessons Learned

2019 PSPS Events

- SCE conducted 16 events (9 led to de-energizations) with approx. 122,000 unique customers de-energized in 2019 with an average duration of 27 hours
- Largest de-energization event was Oct. 27-Nov. 3, 2019 and affected approx. 101,000 unique customers
- During post-patrols found multiple instances of equipment damage and tree branches contacting power lines that could have ignited a fire

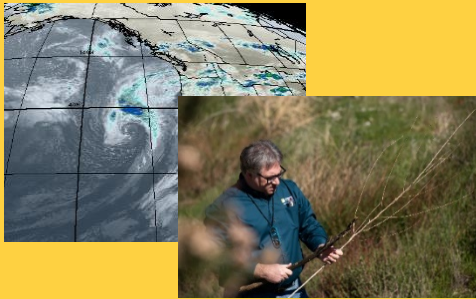
Major PSPS Lessons Learned

1. System hardening, especially circuit sectionalization, continues to be useful in reducing the scope and frequency of PSPS de-energizations
2. The key role played by a dedicated PSPS Incident Management Team and improved analytics in supporting PSPS decision-making and operations
3. Find opportunities to improve communication, engagement, and response to customers during PSPS events
4. It's important to maintain and add customer care programs
5. Modifying protocols to reduce the scope, frequency and impacts of PSPS to customers is important, especially during COVID-19 pandemic
6. Provide additional information about decision-making in post-event reporting



PSPS Decision Points

Decision points include, but are not limited to:



- **Watches and Warnings issued** by the National Weather Service
- SCE meteorologists' forecast of **strong wind** conditions in the service area
- SCE fire scientists' assessment of **fire potential** using weather data, fuel conditions, and vegetation moisture content



- **Circuit health** as determined by inspection findings, recent upgrades, and any observed damage
- Real-time field observations from qualified electrical workers monitoring for **hazardous conditions**



- Guidance from **emergency management officials** and first responder agencies (e.g., Cal OES, CAL FIRE, county/city emergency management entities, tribal governments)
- Impact to **critical infrastructure** as determined by community characteristics and information

PSPS-Related Enhancements

SCE expects to reduce the scope, duration, and impact of PSPS; however, PSPS will continue to remain a viable solution for extreme conditions

Multipronged approach to reduce scope, duration, and impacts of PSPS

Switching Playbooks

Targeted Grid Hardening

Engineering & System Evaluation

Microgrids & Resiliency Zones

Customer Care

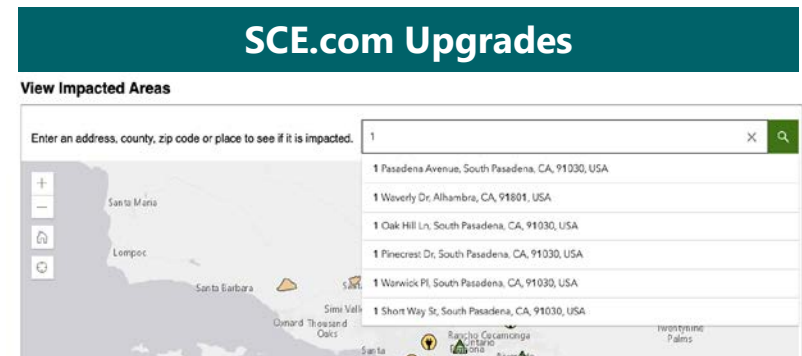
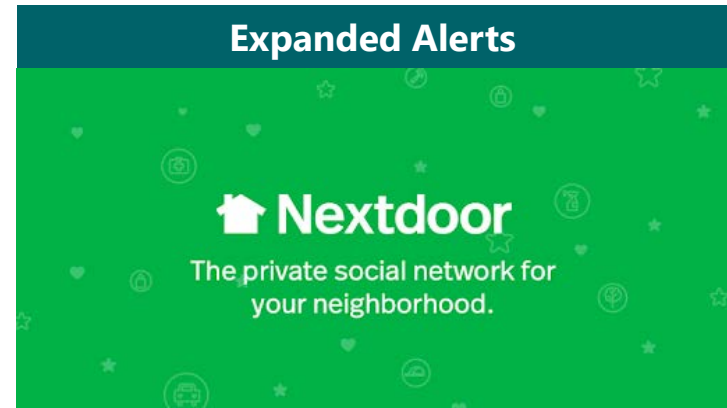
Rapidly developing circuit-specific plans to reduce the impacts observed in 2019 by:

- ❖ Leveraging existing isolation equipment
- ❖ Targeting remediations
- ❖ Identifying small upgrades to reduce the number of customers impacted by PSPS
- ❖ Deploying more weather stations
- ❖ Pursuing microgrid opportunities when technologically and economically feasible with safety operations in mind
- ❖ Establishing Community Resource Centers
- ❖ Deploying Community Crew Vehicles
- ❖ Providing potable water
- ❖ Addressing food spoilage claims
- ❖ Conducting community outreach

Expanded Customer Communications

SCE has expanded communications to make it easier for customers to receive updates in their preferred language

- **Expanded alerts** based on zip code to include non-SCE account holders via the “Nextdoor” communications platform
- **SCE.com** has been upgraded to provide customer-friendly outage information, including enhanced interactive mapping that enables street-level zoom capabilities
- **SCE.com performance** has also been upgraded to handle more traffic (5M views over an hour now vs 200k in 2019)
- Customers can sign up to receive notifications in their **preferred language** (English, Spanish, Mandarin, Cantonese, Korean, and Tagalog)



Providing Valued Programs & Services

SCE is offering a variety of new programs and services to our customers, especially for most vulnerable populations

- **Back-up generation** will be offered to customers that have a range of varying needs
 - Our most vulnerable income-qualified, critical care customers can receive a fully subsidized back up battery with solar for up to 24 hours of resiliency
 - Customers reliant on well water pumping can receive a rebate of up to \$500
 - Customers that need a portable power battery can receive a \$50 rebate
- **Goods and services** are provided via SCE's Community Resource Centers and Community Crew Vehicles to customers in impacted communities including device charging, restrooms, ice, water, PPEs, and ability to enroll in outage alerts.
- **Resiliency zones** are in development to augment certain vulnerable rural communities in which back-up power will be provided to essential services within those areas
- **Circuit-level customer care plans** provide a summary overview of all programs and services available for each circuit area (137 completed to-date with a goal of 1,100)
- **Deploy temporary backup generation** on underground portions of selected de-energized circuits that have experienced PSPS events
- **Preparedness and resiliency planning** support for critical infrastructure providers

Community Engagement & Expanded Partnership

SCE is committed to keeping its customers and key stakeholders informed of WMP activities, PSPS protocols, and general emergency preparedness

- Held nine virtual community meetings and 15 resiliency workshops beginning in May to share information about PSPS, emergency preparedness, and SCE's wildfire mitigation plan
- Increased partnerships, including giving grants, with organizations supporting Access & Functional Needs customers
- Expanded pool of Community Resource Centers and adjusted protocols for social distancing due to COVID-19

Community Meetings & Livestreams



Community Crew Vehicle




In closing, SCE has made significant progress in 2020 (through Q2) to reduce wildfire risks and mitigate PSPS



Community Meetings


Conducted **9 community meetings**



Covered Conductor

Installed **~330 circuit miles of covered conductor**

Total of over 850 circuit miles installed since 2018



Composite Poles

Installed **~1,870 Fire-Resistant Poles**

Total of over 3,000 Fire-Resistant Poles installed since 2018



Enhanced Veg Mgmt


~10,000 Hazard Trees mitigated

Total of over 15,900 Hazard Trees mitigated since 2018



Customer Resiliency


Launched Critical Care Backup Battery Program



Install Sectionalizing Devices

Installed and commissioned 29 additional sectionalizing devices

Total of over 80 additional devices installed since 2018



Branch Line Protection


~1,440 Current Limiting Fuse locations installed

Total of over 11,400 fuse locations installed since 2018



High Fire Risk Inspections


100% of high-risk structures ground inspected for Distribution & Transmission in high fire risk area



Weather Stations

Installed **~390 weather stations**

Total of over 850 weather stations installed since 2018

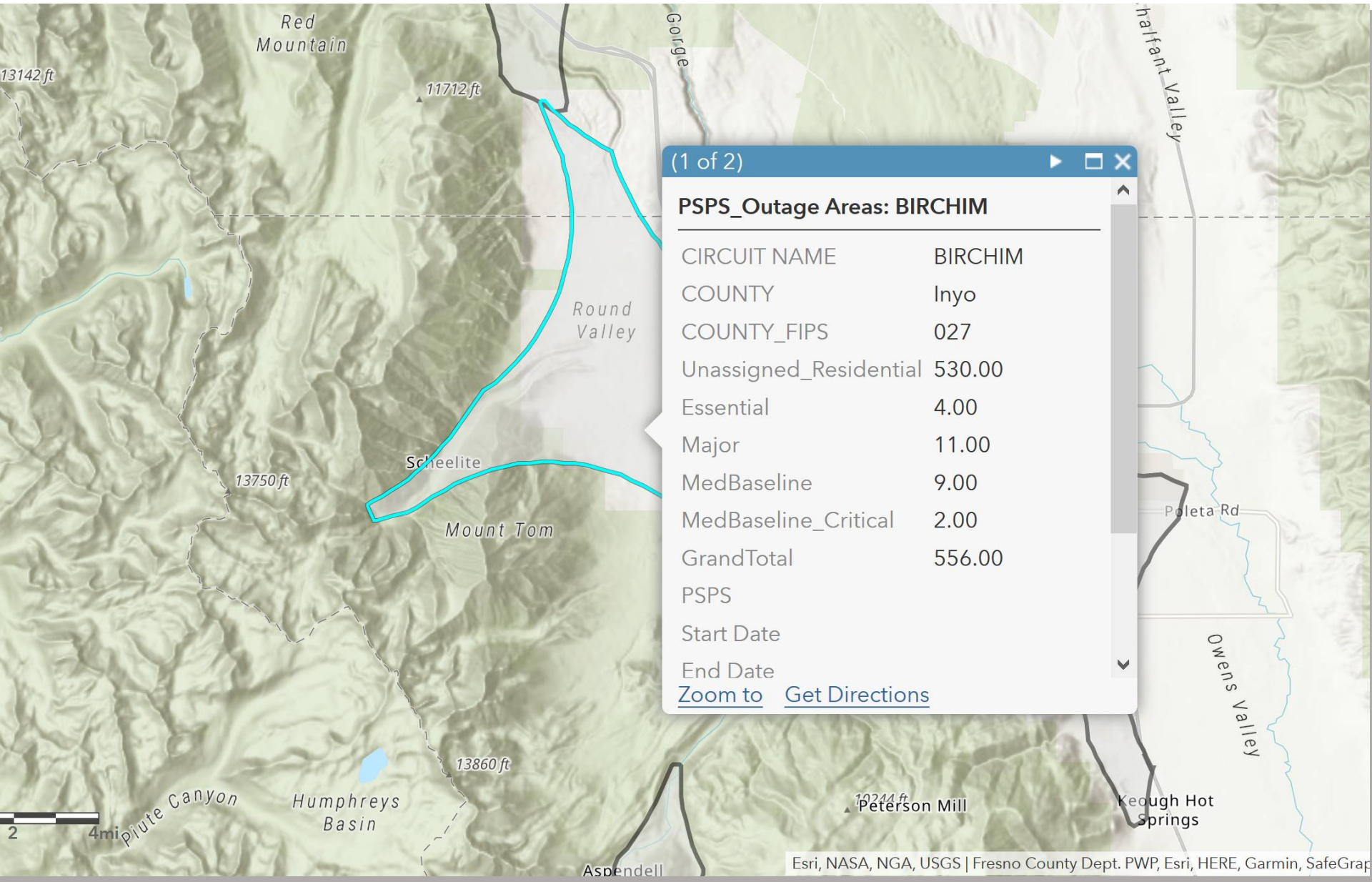


Pole Brushing

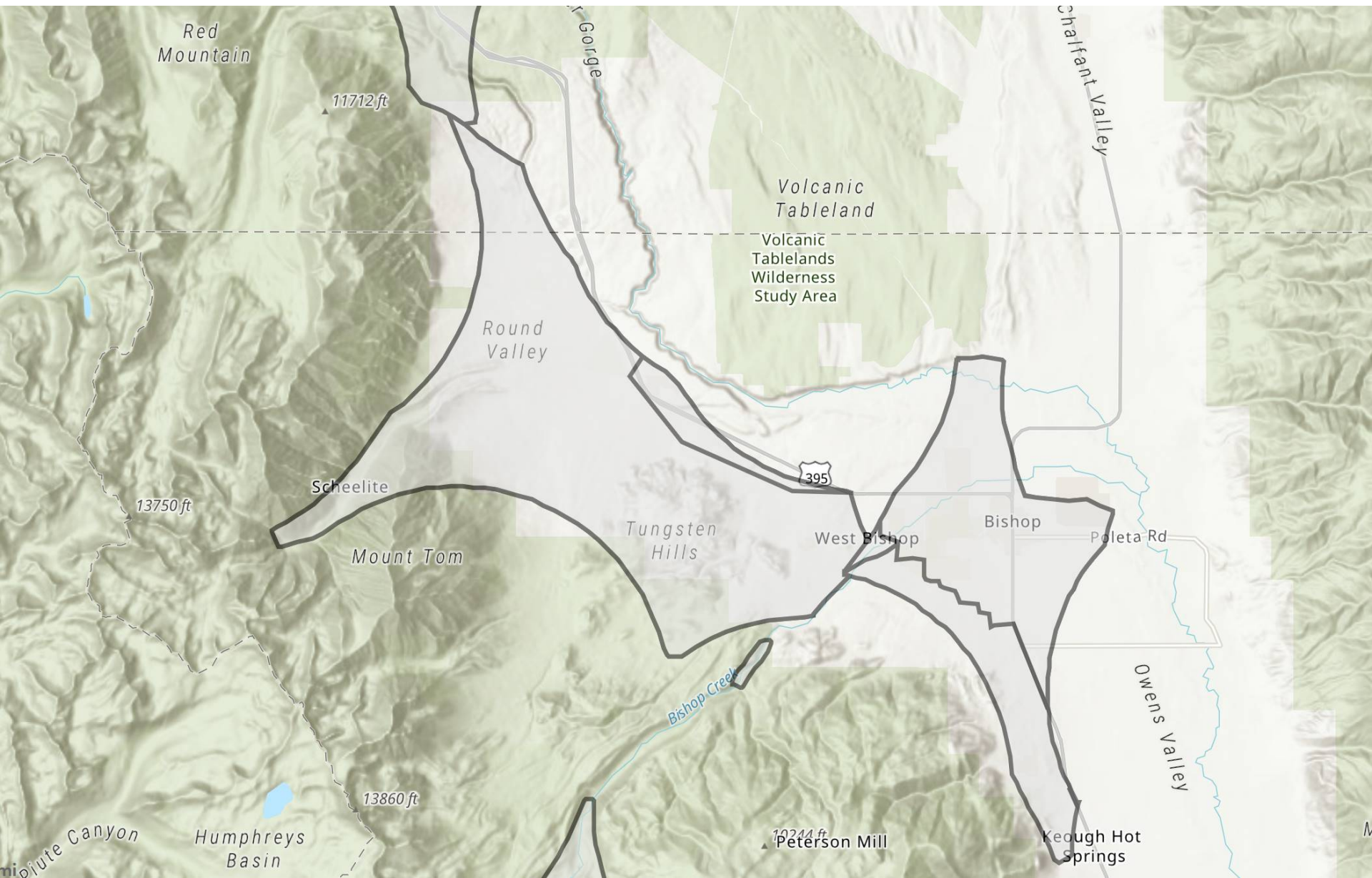
Inspected and cleared brush around **~98,500 poles**

Appendix

Sample Map in REST



Sample Map in REST



SCE.com PSPS Webpage Examples

Areas that are under consideration for de-energization and that are de-energized are displayed, including estimated dates and times for re-energization

View Impacted Areas

Enter an address, county, zip code or place to see if it is impacted. Enter an address, county, zip code or place to see if it is impacted.

Meniers Oaks
Ojai
Oak View

Esri, HERE, NPS

Powered by Esri

PSPS Areas **High Risk Fire Areas**

Power Shutoff Under PSPS consideration Community Crew Vehicles Community Resource Centers

Report an Outage

Monitoring for PSPS from: 3/4/2020 4:00 PM to: 3/5/2020 4:00 PM.

End date is estimated based on weather forecast

[Zoom to](#)

Power has been shut off in this area

Estimated restoration time: 3/6/2020 4:00 PM

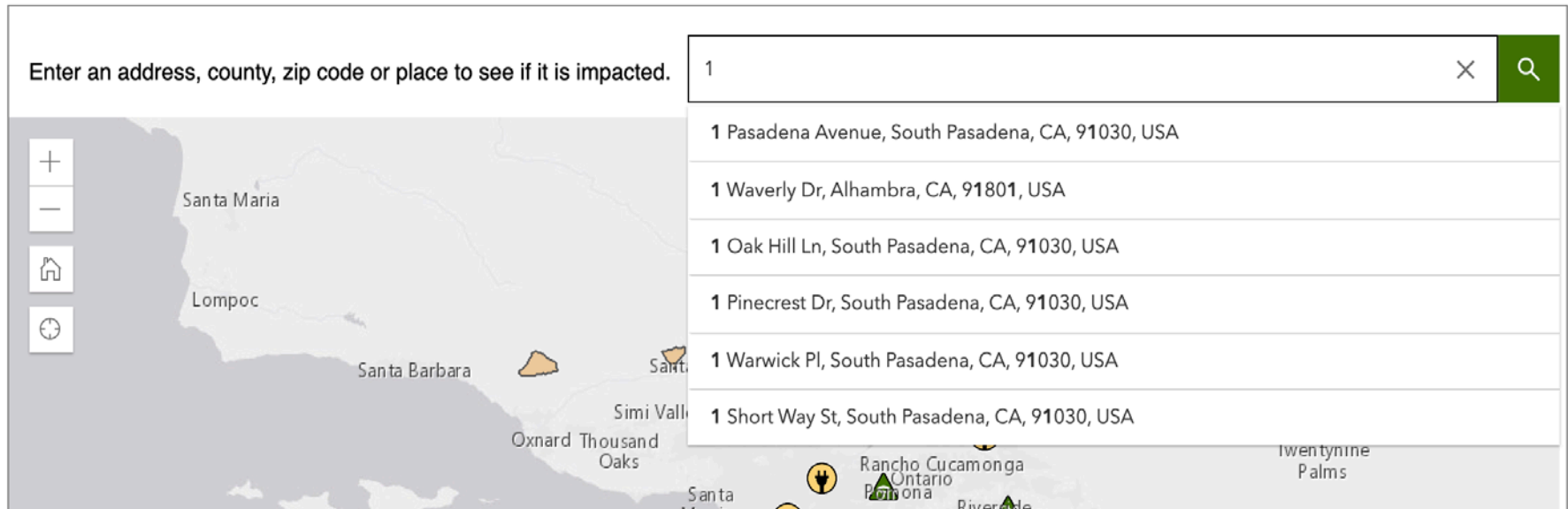
Estimates will be updated as weather conditions improve

[Zoom to](#)

SCE.com PSPS Webpage Examples (cont'd.)

Address search functionality identifies if a location is under consideration, de-energized, or not impacted by PSPS

View Impacted Areas



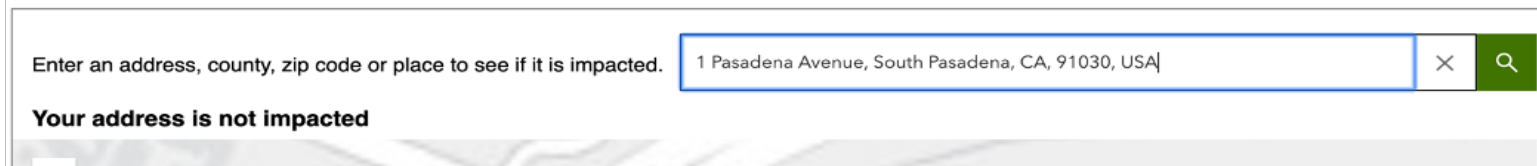
Enter an address, county, zip code or place to see if it is impacted.

1

- 1 Pasadena Avenue, South Pasadena, CA, 91030, USA
- 1 Waverly Dr, Alhambra, CA, 91801, USA
- 1 Oak Hill Ln, South Pasadena, CA, 91030, USA
- 1 Pinecrest Dr, South Pasadena, CA, 91030, USA
- 1 Warwick Pl, South Pasadena, CA, 91030, USA
- 1 Short Way St, South Pasadena, CA, 91030, USA

The screenshot shows a search interface with a map on the left and a search bar on the right. The search bar contains the number '1'. Below the search bar, a list of six addresses is displayed, all located in South Pasadena, CA, 91030, USA. The map shows the Santa Barbara area with various cities labeled, including Santa Maria, Lompoc, Santa Barbara, Simi Valley, Oxnard, Thousand Oaks, Rancho Cucamonga, Ontario, Palmdale, and Riverdale.

View Impacted Areas



Enter an address, county, zip code or place to see if it is impacted.

1 Pasadena Avenue, South Pasadena, CA, 91030, USA

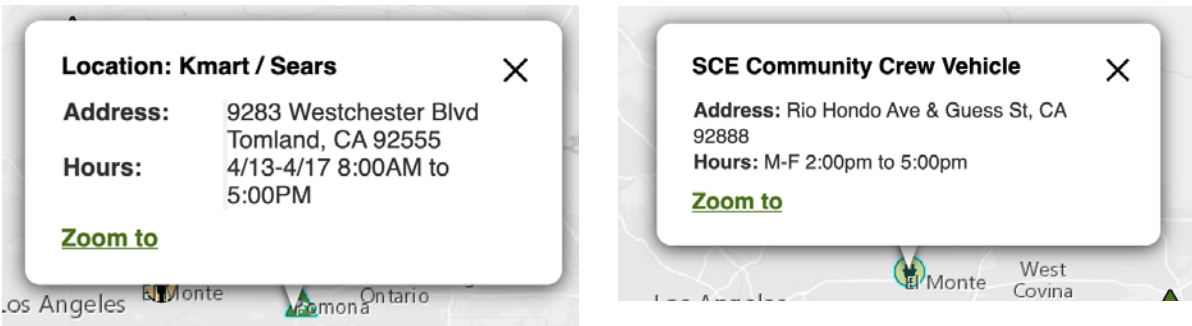
Your address is not impacted

The screenshot shows the same search interface as above, but with a specific address entered in the search bar: '1 Pasadena Avenue, South Pasadena, CA, 91030, USA'. Below the search bar, a message is displayed: 'Your address is not impacted'. The map is partially visible at the bottom of the screen.

SCE.com PSPS Webpage Examples (cont'd.)

Locations of CCVs and CRCs include dates and hours of operation

Map Pop-Up




List View

View Impacted Areas

Enter an address, county, zip code or place to see if it is impacted.


Your address is not impacted

Customer Resources During a PSPS

 **Community Crew Vehicles**

When a Public Safety Power Shutoff is called, Community Crew Vehicle(s) will be available for customers in the affected areas. These vehicles are equipped with backup power so customers can charge their personal mobile devices and continue to receive updates about the outage. Agents are also on-site to help customers update their account information and get assistance with questions. Snacks and water are also provided. See below for location(s) and times:

Los Angeles County	Los Angeles County	San Bernardino County	Ventura County
3458 West Chester Rd Roman, CA 92888	Rio Hondo Ave & Guess Blvd Tomland, CA 92888	9765 Central St Sweetland Highland, CA 92888	897 Ruden St Highview, CA 92888
<ul style="list-style-type: none"> 4/15-4/20 9:00AM - 3:00PM 	<ul style="list-style-type: none"> 4/15 - 4/20 9:00AM to 5:00PM 	<ul style="list-style-type: none"> 4/15-4/20 9:00AM to 5:00PM 	<ul style="list-style-type: none"> 4/14-4/20 9:00AM to 3:00PM

 **Community Resource Centers**

Community Resource Center(s) will be available for customers in affected areas when a Public Safety Power Shutoff is called. These centers will allow customers to power up their personal mobile devices and, where available, to have access to Wi-Fi. Customers will also have access to water and light snacks, a sitting area, restrooms, and updated information on the proactive power shutoff. See below for location(s) and times:

Los Angeles County	Mono County	San Bernardino County	Santa Barbara County
Kmart / Sears 9283 Westchester Blvd Tomland, CA 92888	Kmart / Sears 873 Candy Rd Sweetwater, CA 92888	Kmart / Sears 79 Green Av Blue Ridge, CA 92888	Kmart / Sears 345 Main St Santa Barbara, CA 92888
<ul style="list-style-type: none"> 4/13-4/17 8:00AM to 5:00PM 	<ul style="list-style-type: none"> 4/13-4/17 8:00AM to 5:00PM 	<ul style="list-style-type: none"> 4/13-4/17 8:00AM to 5:00PM 	<ul style="list-style-type: none"> 4/13-4/17 8:00AM to 5:00PM