# 2020 Public Safety Power Shutoff (PSPS) Post Event Report Review Southern California Edison (SCE)

#### **Introduction and Recommendations:**

In 2020, SCE initiated a total of 16 PSPS events. In some cases, SCE combined more than one PSPS event into a single post event report. As a result, SCE submitted 12 post event reports to California Public Utilities Commission (CPUC). The CPUC's Safety and Enforcement Division (SED) reviewed the submitted reports to evaluate SCE's compliance with the reporting requirements under Resolution ESRB-8, Decision (D.)19-05-042 and D.20-05-051. The findings in this Post Event Report Review are based on the information presented in the post event reports and the public comments.

Table 1 below summarizes the impact of SCE's 2020 PSPS events on various customer categories. The table represents revised data in response to SED's data requests.

Table 1 - SCE 2020 PSPS Summary

Report #	Dates	Total Customers Notified	Total Customers De- energized	Medical Baseline Customers De- energized	Number of Counties De- energized	Number of Tribes De- energized
1	May 27 – May 30	3,366	0	0	0	0
2	June 25 – June 28	13,444	0	0	0	0
3	July 31 – Aug. 4	368	17	0	1	0
4	Sep. 5 – Sep. 11	76,751	252	10	2	0
5	Oct. 16 – Oct. 16	78	86	1	2	0
6	Oct. 23 – Oct. 28	128,543	36,290	1,208	6	0
7	Nov. 3 – Nov. 7	5,682	1,335	18	3	0
8	Nov. 14 – Nov. 18	10,402	509	16	4	0
9	Nov. 24 – Nov. 28	84,151	20,687	766	6	0
10	Nov. 29 – Dec. 4	197,301	64,348	2,089	6	0
11	Dec. 4 – Dec. 14	185,229	79,154	2,528	7	5
12	Dec. 16 – Dec. 24	140,950	27,519	786	7	2

data source: SCE 2020 PSPS post event reports and SCE's responses to SED's data requests.

SED has found numerous issues and concerns. In particular, SCE revised data in its PSPS summaries in response to data requests from SED, resulting in significant differences from what were initially reported in the PSPS post event reports. SCE claimed the data revision was due to a validation process. SCE shall take immediate corrective actions to comply with the guideline requirements and ensure data integrity, reporting accuracy, consistency, and completeness.

## **Compliance Review:**

The results of the review are presented below in the order the existing guidelines were published. (The attachment to SCE's post event report is not page numbered. For easier reference, SED refers to the specific page in attachment as "PDF file page #". Any other page number refers to the report page #).

#### I. Resolution ESRB-8:

- 1. A notification to the Director of SED provided no later than 12 hours after the power shut-off.
  - For all of the events, SCE notified SED within 12 hours after the power shut-off.
- 2. IOUs shall submit a report to the Director of SED within 10 business days after each de-energization event, as well as after high-threat events where the IOU provided notifications to local government, agencies, and customers of possible de-energization though no de-energization occurred.
  - 1) For the November 29 December 4 event, the post event report was submitted to the Director of SED on December 21, 2020. The event concluded on December 4 and the due date for filing the post event report was December 18. SCE did not meet the reporting deadline of 10 business days after the event ended. SCE sent a notification to CPUC on December 18 stating it recognized December 18 was the due date and it would submit the report on December 21. However, this notification was a statement, not a request for an extension of the due date.
  - 2) For the December 4 December 14 report, SCE covered three PSPS events. SCE combined the three events into one reporting without prior approval from SED. SCE did not meet the report deadline for three of the events. See Table 2 below:

Table 2

Period of	Event	Report due	SCE's filing	Days
Concern	concluded	dates	dates	overdue
Dec. 7 –	Dec. 9	Dec. 23	Dec. 29	6
Dec. 8	Dec. 9	Dec. 23	Dec. 29	U
Dec. 10 –	Dec. 11	Dec. 28	Dec. 29	1
Dec.11	Dec. 11	Dec. 28	Dec. 29	1
Dec. 12 –	Dec. 13	Dec. 28	Dec. 29	1
Dec. 13	Dec. 13	Dec. 28	Dec. 29	1

In addition, for the December 12 – December 13 event, SCE's post event report stated the event concluded on December 14. This contradicts the email sent to the CPUC on December 13, at 4:23 pm which stated the December 12 - December 13 event concluded.

3) The December 16 – December 24 event covered two PSPS events. SCE combined the two events into one report without prior approval from SED. SCE did not meet the report deadline for one of the events. See Table 3 below:

Table 3

Period of	Event	Report due	SCE's filing	Days
Concern	Concluded	dates	dates	overdue
Dec. 18 –	Dec. 20	Jan. 5	Jan. 11	6
Dec. 20	Dec. 20	Jan. J	Jan. 11	U
Dec. 22 –	Dec. 25	Jan. 11	Jan. 11	On Time
Dec. 25	Dec. 23	Jan. 11	Jan. 11	On Time

- 4) There was another PSPS event with Period of Concern from December 15 December 16. SCE notified SED it was cancelled on December 14 and that SCE was notifying public safety partners and customers. However, SCE did not include this event in any of the post event reports.
- *The report should include:* 
  - a. an explanation of the decision to shut off power;

SCE provided an explanation of the decision to shut too off power. The explanation was similar in each report. SCE described they watched the weather, then decided if needed to turn off the power based on the weather conditions.

For SED's evaluation, refer to Section II. 2. a. (evaluation of D.19-05-042 – Phase I Guidelines).

b. all factors considered in the decision to shut off power, including wind speed, temperature, humidity, and moisture in the vicinity of the de-energized circuits;

See SED's further evaluation under Section II.2.a. (evaluation of D.19-05-042 – Phase I Guidelines).

c. the time, place, and duration of the shut-off event;

SCE reported the time, place, and duration of the shut-off events.

d. the number of affected customers, broken down by residential, medical baseline, commercial/industrial, and other;

SCE referred to Attachment B - Customer Communication Notification Tracking Sheet as the responses to this reporting requirement. However, Attachment B varies by event. Upon the review of Attachment B, SED noted the following issues:

- 1) For the following events, SCE only reported the breakdown for the potentially affected customers, not for the de-energized customers:
  - July 31 August 4
  - September 5 September 11
  - October 16 October 16
  - October 23 October 28
  - November 3 November 7
  - November 14 November 18
  - November 24 November 28
  - November 29 December 4

- 2) For the following events, SCE did not report the category breakdown at all, not even the potentially affected customers:
  - December 4 December 14
  - December 16 December 24
- 3) When reporting the affected customer breakdown, SCE did not have the category of "commercial/industrial" per the guideline requirement, instead, it had "major" and "essential use" categories. SCE did not define those two categories. SED therefore finds that SCE's customer categorization did not comply with the reporting requirement.
- e. any wind-related damage to IOU's overhead power-line facilities in the areas where power is shut off;

Among the 12 post event reports, SCE reported wind damages in the following six events:

- July 31 August 4
- October 23 October 28
- November 24 November 28
- November 29 December 4
- December 4 December 14
- December 16 December 24
- f. a description of the notice to customers and any other mitigation provided by IOU;

SCE described how they notified customers, acknowledged notification failures and provided explanations. For SED's evaluation, see Section II. 2. b & Section II. 2. c. (evaluation of D.19-05-042 – Phase I Guidelines).

SCE reported it used different types of sectionalizing devices including Remote Automatic Recloser (RAR), Remote Controlled Switch (RCS), Pole Switch (PS), Gas Switch (GS), Padmount Enclosure (PME), and Circuit Breaker (CB) to isolate and deenergize only the necessary portions of circuits as mitigation.

g. any other matters that IOU believes are relevant to the Commission's assessment of the reasonableness of IOU's decision to shut off power.

SCE did not report any other matters.

h. The local communities' representatives the IOU contacted prior to de-energization, the date on which they were contacted, and whether the areas affected by the de-energization are classified as Zone 1, Tier 2, or Tier 3 as per the definition in General Order 95, Rule 21.2-D.

SCE reported the areas affected by the 2020 de-energization events were classified as either Tier 2 or Tier 3. However, SCE only reported the jurisdiction, not the specific names of the organization or local communities, or the title of the contacted representatives contacted. SCE must provide the specific organization/jurisdiction names and the title of contacted representatives. Without the specific organizations identified, SED cannot determine which local communities that SCE had contacted.

i. If an IOU is not able to provide customers with notice at least 2 hours prior to the de-energization event, the IOU shall provide an explanation in its report.

Refer to SED's assessment under Section II. 2. c. (evaluation of D.19-05-042 – Phase I Guidelines).

j. The IOU shall summarize the number and nature of complaints received as the result of the de-energization event and include claims that are filed against the IOU because of de-energization.

SCE provided the numbers of complaints and claims in each report, as summarized in Table 4 below. Examples of the complaints were lack of information during PSPS, disagreement with use of PSPS, multiple PSPS, notification, long duration of PSPS and unfair impact on elderly. Most of the claims were for food loss.

Table 4

Dates	Number of	Number	Report page #	
	Complaints	of Claims	1 1 0	
May 27 –	0	0	Page 6	
May 30	Ŭ.		1.05	
June 25 –	1	0	In the report of July 31 –	
June 28	1	V	August 4, Page 7	
July 31 –	0	0	Page 6	
Aug. 4	U	V	1 age 0	
Sep. 5 –	0	0	Page 7	
Sep. 11	U	U	rage /	
Oct. 16 –	0	0	Dogo 5	
Oct. 16	U	U	Page 5	
Oct. 23 –	10	1 47	Page 11, and In the report of	
Oct. 28	10	147	Nov. 14 – Nov. 18, Page 7	
Nov. 3 –	2	0	In the report of Nov. 14 –	
Nov. 7	2	0	Nov. 18, page 7	
Nov. 14 –	2	0	Daga 9	
Nov. 18	2	U	Page 8	
Nov. 24 –	2	(0	Page 8, and in the report of	
Nov. 28	3	68	Dec. 16 – Dec. 24, page 10	
Nov. 29 –	10	1.60	Page 11, and in the report of	
Dec. 4	10	168	Dec. 16 – Dec. 24, p10	
Dec. 4 –	52	(	Page 12, and in the report of	
Dec. 14	53	6	Dec. 16 – Dec. 24, p10	
Dec. 16 –	27	4.5		
Dec. 24	37	45	Page 10	
Total	118	434		

Note: SCE provided contradictory information in its post event report for November 29 – December 4. See item 2) below. For statistic purpose, SED counted the complaints as for November 29 – December 4.

In addition, SCE also reported some community inquires and concerns regarding notifications, weather forecasting and vulnerable customers, etc.

While SCE reported a total of 118 complaints and 434 claims, SED noted the following issues:

- 1) Stakeholders state in their comments on the post-PSPS reports that their complaints were not captured in SCE's post event reports. SCE must ensure all the complaints from various sources are completely and properly reflected in the reports.
- 2) For the November 29 December 4 event, SCE reported "SCE Consumer Affairs did receive 9 complaints from representatives of affected cities through the CPUC's Consumer Affairs Branch" (page 11, item 4). However, the details indicated the complaints were for the prior event which was November 24, not related to this event.
- k. The IOU shall provide detailed description of the steps it took to restore power.
  - SCE reported the steps it took to restore power by briefly stating when dangerous conditions subside, circuits that are de-energized will be patrolled and inspected to ensure there is no damage before power can be safely restored. Any visual inspection of the power lines typically take place during daylight hours for safety and accuracy. Therefore, patrol and restoration operations may be limited or prolonged during overnight hour.
- 1. The IOU shall identify the address of each community assistance location during a de-energization event, describe the location (in a building, a trailer, etc.), describe the assistance available at each location, and give the days and hours that it was open.

While SCE reported the information about community assistance, SED noted the following issues:

- 1) For the June 25 June 28 event, SCE reported the Community Crew Vehicles' (CCVs) hours of operation, but did not report the days of operation.
- 2) For the November 29 December 4 event, a total of 16 Community Resource Centers (CRCs) and CCVs were opened, SCE reported the center names where the CRCs or CCVs were

- located but did not report the address. SCE must report the address of each CRC/CCV.
- 3) For the November 3 November 7 event, SCE did not describe the assistance available at each CRC location.
- 4. The IOU shall notify the Director of SED, as soon as practicable, once it decides to de-energize its facilities. If the notification was not prior to the de-energization event, the IOU shall explain why a pre-event notification was not possible. The notification shall include the area affected, an estimate of the number of customers affected, and an estimated restoration time. The IOU shall also notify the Director of SED of full restoration within 12 hours from the time the last service is restored.

## SED noted the following issues:

- 1) For all the events, although SCE's notifications to SED included Period of Concern, none of the notifications included an estimated restoration time.
- 2) SCE did not meet the 12-hour restoration notification requirement for the November 3 November 7 event. SCE fully restored service at 9:37am on November 8, but did not notify SED by email until November 8th at 11:04am that the remaining 12 customers had been re-energized the morning of November 7. This notification was made after more than 24 hours from the time service was fully restored at 9:37am November 7<sup>th</sup> (page 5).
- 3) For the December 16 December 24 event, on December 24 at 4:48 pm, SCE notified SED that all SCE customers had been restored and the event had concluded. However, one circuit shared by SCE and PG&E was not restored until December 25<sup>h</sup> at 11:03am. SCE 's final update email did not identify that these four customers had not been restored yet, and SCE did not send another email to the SED after December 25 notifying that all customers had been restored.

#### **II.** D.19-05-042 - Phase 1 Guidelines

1. In addition to submitting a report to the Director of the Commission's Safety and Enforcement Division within 10 business days of power restoration, electric investor-owned utilities must serve their deenergization report on the service lists of this proceeding and Rulemaking 18-10-007 or their successor proceedings. Service should include a link to

the report on the utility's website and contact information to submit comments to the Director of the Safety and Enforcement Division.

SCE served the reports to the service list in a timely manner with the following exceptions:

- 1) For the May 27 May 30 event, the report was not provided to the service list.
- 2) For the November 29 December 4 event, SCE served this report on the service list on December 21, 2020, which was 11 business days after power restoration.
- 3) For the December 4 December 14 and December 16 December 24 post event reports, SCE served the report on the service list on December 29, 2020 and January 11, 2021, respectively. As SCE combined multiple events into one report, SCE missed the deadline of serving the post event reports for the following events.

Table 5

Period of	Event	Report service	SCE's serving	Days
Concern	concluded	due dates	dates	overdue
Dec. 7 –	Dec. 9	Dec. 23	Dec. 29	6
Dec. 8	Dec. 9	Dec. 23	Dec. 29	O
Dec. 10 –	Dec. 11	Dec. 28	Dec. 29	1
Dec. 11	Dec. 11	Dec. 28	Dec. 29	1
Dec. 12 –	Dec. 13	Dec. 28	Dec. 29	1
Dec. 13	Dec. 13	Dec. 28	DCC. 29	1
Dec. 15 –	Dec. 14	Dec. 29	nono	Not
Dec. 16	Dec. 14	Dec. 29	none	filed
Dec. 18 –	Dec. 20	Jan. 5	Jan. 11	6
Dec. 20	Dec. 20	Jail. J	Jan. 11	U

In addition, while SCE included a link to the PSPS post event report on SCE's website and contact information to submit comments, the link was to SCE's wildfire webpage not to the specific report as required.

2. In addition to the reporting requirements in Resolution ESRB-8, the electric investor-owned utilities must provide the following information:

a. Decision criteria leading to de-energization, including an evaluation of alternatives to de-energization that were considered and mitigation measures used to decrease the risk of utility-caused wildfire in the deenergized area

While SCE considered various factors including Fire Potential Index (FPI) values and wind speed expected to either exceed National Weather Service (NWS) advisory levels of 31 mph sustained/46 mph gust or forecasted to exceed the top 1% of historic wind speeds, SED noted the following issues:

- 1) SCE did not establish the threshold or criteria of FPI.
- 2) While SCE used the sectionalization to reduce the impacts, SCE did not provide the alternatives it considered nor the evaluation of the alternatives. SCE simply stated it "only uses deenergization when no other alternatives will mitigate this fire risk and to the extent possible, minimizes the impact by limiting the de-energization to the smallest number of customers possible through segmentation of impacted circuits, where possible."
- b. A copy of all notifications, the timing of notifications, the methods of notifications and who made the notifications (the utility or local public safety partners).

Upon the review of the copies of notifications, notification scripts, PSPS notification tracking sheet and Everbridge PSPS Notification Audit Report, SED noted numerous notification deficiencies. Consequently, SCE must enhance its notification process. SED identified the following deficiencies

- 1) Timing of notifications
  - 1.1) For six out of the 12 reports submitted, there were instances that SCE did not send out any advance notifications to some customers prior to the de-energizations (see Table 6).

Table 6

Dates	Custo mer Counts	Explanation	Report Page #
Oct. 16	86 <u>1</u>	rapid onset of hazardous weather conditions	Page 4 & 8
Oct. 23 – Oct. 28	2,051	rapid onset of hazardous weather conditions	Page 7
Nov. 3 – Nov. 7	1,163	rapid onset of hazardous weather conditions	Page 5
Nov. 14 – Nov. 18	9	Not originally in the Period of Concern	Page 5 & 6
Nov. 29 – Dec. 4	253	rapidly escalating wind speeds and high Fire Potential Index ratings	Page 10 & 11
Dec. 4 – Dec. 14	21,471	rapidly escalating wind speeds and elevated Fire Potential Index ratings	Page 10 & 11
Dec. 16 – Dec. 24	540	rapidly escalating wind speeds and elevated Fire Potential Index ratings	Page 8 & 9
Total	25,573		

- 1.2) For nine out of the 12 reports submitted, SCE did not comply with the required minimum notification timeline (see Table 7). These included:
  - Initial notifications did not meet the timeline.
  - No imminent notifications or imminent notifications were less than one hour. The imminent notifications should be 1-4 hours in advance
  - No power shutoff initiation notifications.

<sup>&</sup>lt;sup>1</sup> In response to SED's data request, on February 24, 2021, SCE revised the total customers notified from the initially reported of 0 to 78 as reflected in Table 1 For the review of notification timing, SED took the initially reporting that none of the 86 de-energized customers were provided advance notification.

Table 7

	Non-compliance	SCE Explanation
	Initial notifications	To weigh potential de-
	were not delivered at	energization against the
	the requisite 72-, 48	risk to public safety and
	and 24-hour	prevent false notification
	timeframes.	of a PSPS event due to the
		rapidly shifting weather
		patterns.
1 25		
June 25 -	Customer	Human error.
June 28	notifications were	
	disseminated on June	
	28, 2020 at	
	approximately 11:30	
	am. 3 circuits did not	
	receive initial	
	notifications until	
	5:30 pm.	
	Some contacts in Los	Technical issue with the
	Angeles and Kern	Everbridge Notification
	counties were	System SCE uses for local
	inadvertently left off	government and
July 31 –	the initial	municipal Public Safety
Aug. 4	notification. These	Partner notifications.
	contacts were	
	manually contacted	
	by Local Public	
	Affairs the next day.	
	For Sand Canyon	Sand Canyon Circuit was
	circuit, only	not in scope.
	imminent notification	
Sep. 5 –	was sent out at 3:38	
Sep. 11	am, Sep. 9 and de-	
	energized at 3:54 am,	
	less than one hour	
	before the power shut	
	off.	

4) 10 circuits did not receive notice of re-energization.  5) Three circuits did not receive any prior notifications  1) SCE provided imminent notices approximately 23 minutes prior to de-energization.  2) A portion of one circuit did not receive any imminent notifications.  2) A portion of one circuit did not receive any imminent notifications.  3) Three circuits did not receive any prior notifications.  A portion of the Twin Lakes circuit only received imminent notification.  Nov. 24 – Nov. 28 Some imminent notification.  Nov. 29 – Some imminent  1) & 2) rapidly escalating wind speeds.  3) rapid onset of hazardous weather conditions.  Observed fire weather conditions from rapidly escalating wind speeds.	Oct. 23 – Oct. 28	<ol> <li>51 circuits did not receive imminent notifications.</li> <li>20 circuits did not receive notification at time of deenergization.</li> <li>10 circuits did not receive notice in advance of reenergization.</li> </ol>	For 1) – 4), SCE did not provide explanations.  For 5), rapid onset of hazardous weather conditions.
not receive any prior notifications  1) SCE provided imminent notices approximately 23 minutes prior to de-energization.  2) A portion of one circuit did not receive any imminent notifications.  3) Three circuits did not receive any prior notifications.  3) Three circuits did not receive any prior notifications.  A portion of the Twin Lakes circuit only received imminent notification.  Nov. 24 – Nov. 28  Nov. 29 – Some imminent  1) & 2) rapidly escalating wind speeds.  3) rapid onset of hazardous weather conditions.  Observed fire weather conditions from rapidly escalating wind speeds.		4) 10 circuits did not receive notice of	
imminent notices approximately 23 minutes prior to de-energization.  2) A portion of one circuit did not receive any imminent notifications.  3) Three circuits did not receive any prior notifications.  A portion of the Twin Lakes circuit only received imminent notification.  Nov. 24 – Nov. 28  A portion of the Twin Lakes circuit only received imminent notification.  Nov. 29 – Some imminent  1) Communication errors		not receive any	
Nov. 14 – Nov. 18  2) A portion of one circuit did not receive any imminent notifications.  3) Three circuits did not receive any prior notifications.  A portion of the Twin Lakes circuit only received imminent notification.  Nov. 24 – Nov. 28  Some imminent 1) Communication errors		imminent notices approximately 23 minutes prior to	wind speeds.  3) rapid onset of hazardous weather
not receive any prior notifications.  A portion of the Twin Nov. 24 – Lakes circuit only received imminent notification.  Nov. 29 – Some imminent 1) Communication errors		circuit did not receive any imminent	
Nov. 24 – Lakes circuit only Nov. 28 received imminent notification.  Nov. 29 – Some imminent 1) Communication errors		not receive any prior	
Nov. 28 received imminent escalating wind speeds.  Nov. 29 – Some imminent 1) Communication errors		_	
notification.  Nov. 29 – Some imminent 1) Communication errors		1	
Nov. 29 – Some imminent 1) Communication errors	Nov. 28		escalating wind speeds.
1) Communication errors	Nov. 29 –		1) Communication errors
			between grid

Page 14 of 21

	begin until after de-		operations and
			customer service.
	energization	2)	
	occurred.	\ \( \( \sigma \)	Rapidly escalating wind speeds.
Dec. 4 – Dec. 14	1) SCE did not provide imminent notifications to all customers before deenergization. 2) 24 circuits did not receive any advance notifications prior to the power shut off.		The large number of circuits that required de-energization and the internal issues coordinating imminent notifications between grid operations, responsible for managing de-energizations, and customer service, responsible for providing notices Rapidly escalating wind speeds and elevated Fire Potential
			Index ratings.
Dec. 16 – Dec. 24	Not all customers received imminent notification of deenergization.		Internal issues coordinating imminent notifications between grid operations, responsible for managing de- energizations, and customer service, responsible for providing notices Rapidly escalating wind speeds and high Fire Potential Index ratings.

Following the minimum notification timeline is imperative, especially to Access and Functional Needs (AFN) customers who rely on the notifications at different time intervals to plan, adjust

and arrange the resources for power outages.

- 2) Incomplete notifications
  - 2.1) In SCE's public safety partner notification scripts, it stated the Period of Concern (POC) is attached. However, the POC does not represent the estimated time of deenergization and restoration. The notifications to public safety partners were deemed incomplete. SCE must clearly state in the notifications the estimated time of deenergization and restoration.
  - 2.2) None of the customer notifications included the estimated length of the event, nor the estimated time to power restoration
- c. If the utility fails to provide advanced notification or notification according to the minimum timelines set forth in these Guidelines, an explanation of the circumstances that resulted in such failure;
  - As mentioned in Section II. 2. b. 1) above, except for the May 27 May 30 report, SCE failed to provide advanced notifications according to the minimum timelines for 11 out of 12 reports. SCE acknowledged these notification failures and provided explanations. For de-energization without any prior notifications, SCE stated it was due to rapid changing weather. For notifications not meeting minimum timelines, SCE stated it was due to either weather or internal coordination issues between grid operations and customer services. See Table 6 under Section II.2.b.1.2) for details.
- d. A description and evaluation of engagement with local and state public safety partners in providing advanced education and outreach and notification during the de-energization event:
  - SCE only briefly described the engagement with local and state public safety partners, SCE did not evaluate how effective the engagement was.
- e. For those customers where positive or affirmative notification was attempted, an accounting of the customers (which tariff and/or access

and functional needs population designation), the number of notification attempts made, the timing of attempts, who made the notification attempt (utility or public safety partner) and the number of customers for whom positive notification was achieved;

SCE reported it only tracks critical care customers for positive or affirmative receipt of notification attempts. For each event, SCE reported the number of critical care customers requiring secondary verification and SCE stated it made positive contact with all of them. SED noted several issues:

- 1) SCE did not provide the number of critical care customer notification attempts made. Without this required information, SED cannot determine the effectiveness of SCE's positive notification strategy.
- 2) SCE did not describe the timing of communication with these customers.
- f. A description of how sectionalization, i.e. separating loads within a circuit, was considered and implemented and the extent to which it impacted the size and scope of the de-energization event.
  - SCE described how it used sectionalization to reduce the impact of PSPS event. See more details under Section I.3.f.
- g. An explanation of how the utility determined that the benefit of deenergization outweighed potential public safety risks.

SCE provided an explanation for each event that the benefit of deenergization outweighed potential public safety risks. SCE stated "it sets thresholds based on SCE's risk-informed assessment of the potential for a catastrophic wildfire should an ignition occur under the conditions presented. Under such conditions, the harm to life and property resulting from a catastrophic wildfire vastly outweighs the impacts of the deenergization necessary to eliminate the potential of ignition. Additionally, SCE states that it only uses deenergization when no other alternatives will mitigate this fire risk and, to the extent possible, minimizes the impact by limiting the de-energization to the smallest number of customers possible through segmentation of impacted circuits

h. The timeline for power restoration (re-energization,) in addition to the steps taken to restore power as required in Resolution ESRB-8.

SCE reported the timeline for power restoration. The topics under the restoration timeline varied. Some reports covered the time of patrol initiated and re-energization time for each circuit (for example, November 24 – November 28 event). Other reports covered the time of Incident Commander authorized imminent notifications sent and re-energization time by circuits (for example, December 4 – December 14 event). Some contain general timeline without the patrol time or imminent notification time by circuit (for example, October 23 – October 28 event).

i. Lessons learned from the de-energization event.

SCE did not report lessons learned for each event. For the November 3 – November 7 and December 16 – December 24 events, SCE did not identify any specific lessons learned, but states that it was evaluating lessons from all events and considering improvements. SCE should consider each PSPS event as an opportunity to learn and improve and should conduct after action reviews, including stakeholder/customer input, after each event.

- j. Any recommended updates to the guidelines adopted in Resolution ESRB-8 and this decision.
  - 1) SCE states that it is not clear if any and all notifications of potential PSPS would be considered to be a false positive, or if this would be limited to instances when a customer receives notification that PSPS is imminent but is not actually deenergized. It also seeks clarification on false negative communications, i.e. de-energizations without 1-4-hour notice. SCE recommends that only (1) imminent de-energization notices (1-4 hours) when de-energization does not take place; (2) imminent re-energization notices when no re-energization took place within the period of time indicated in the notice; or (3) deenergization without any notice be considered in the context of reporting false positive and false negative notifications.

2) SCE also believes that the relevant timeframe for assessing the number of customers who received notification but did not get de-energized/re-energized or who were de-energized without notification should be limited to imminent notification made within 1-4 hours of a de-energization event or actual de-energization without notice. It states that weather conditions during PSPS events are dynamic and can change very quickly, and 1, 2, or 3-day advance notifications inherently have significant variability built in.

### **III.** D.20-05-051 - Phase 2 Guidelines

1. CRCs shall be operable at least 8 AM-10 PM during an active deenergization event, with actual hours of operation to be determined by the local government in cases in which early closure of a facility is required due to inability to access a facility until 10 PM

SED noted not all the CRCs or CCVs observed the required operation hours and SCE did not provide an explanation. For example:

- For the July 31 August 4 event, SCE deployed CCV on August 2 from 5 pm to 8:30 pm and August 3, 3 pm to 9 pm. According to the Event Summary and Executive Summary, power shut-off started on August 2, 2020, at approximately 2:15 pm, affecting a total of 17 customers. The CCV was not immediately available when the power was shut off at 2:15 pm. Further, the CCV was not open until 3 pm on August 3. SCE was in violation of the provision on CRCs operation hours between 8 am 10 pm.
- For the October 23 October 28 event, the report contains the CRC locations and available hours, which are stated as 9 am 10 pm on October 26 and 9 am 12 pm on October 27. However, a footnote states that "CRC/CCV operation coincided with the period of concern in each area, which resulted in actual hours of operation that are different from the CRC/CCV available hours". SCE did not report the actual hours of operation for each location nor stated why the CCVs and CRCs were not available at 8am.
- For the November 3 November 7 event, three CRC locations were open from 8 am to 10 pm on November 6, but one CCV was only in operation from 5 pm to 10 pm on that day. SCE did not state why that CCV was not in operation for the full hours.

- For the December 4 December 14 event, 14 CCVs were opened. For each of them, SCE reported the operation hours. Some of them were closed before 10 pm. SCE did not explain the reason.
- 2. Each electric investor-owned utility shall ensure that electric service to impacted service points is restored as soon as possible and within 24 hours from the termination of the de-energization event, unless it is unsafe to do so.

While SCE provided the explanation whenever it was unable to restore power within 24 hours, SED noted for the November 29 – December 4 event, different restoration dates and times were reported.

Table 8

Circuit name	Restoration time on p15	Restoration time per timeline on p13 & p14
Atento	5:30 pm, Dec. 10	6:30 pm, Dec. 4
Taiwan	3:09 pm, Dec. 11	6:30 pm, Dec. 4

SCE must improve its reporting accuracy and consistency.

3. Each electric investor-owned utility shall enumerate and explain the cause of any false communications in its post event reports by citing the sources of changing data.

SCE stated it was seeking CPUC's clarification on the definition of "false communications" and based its report on its understanding. However, false communications were not completely reported although SCE acknowledged the existence of false communications. For situations when customers were de-energized but did not receive any or timely prior notification, SCE stated some reasons and listed the customer counts by circuits; see details under Section II.2.b. 1.1) for situations when customers were notified of de-energization but ended up not having power shut off. SCE did not enumerate how many notified customers did not have power shut off nor explain the cause for the false communication.

4. Each electric investor-owned utility shall report on all potential or active de-energization events in its post event reports. These reports shall include

a thorough and detailed description of the quantitative and qualitative factors it considered in calling, sustaining, or curtailing each deenergization event (including information regarding why the deenergization event was a last resort option) and a specification of the factors that led to the conclusion of the deenergization event.

SCE reported some qualitative factors in calling a PSPS. For all the events, SCE did not provide thorough and detailed quantitative analysis in calling a PSPS and why the de-energization was the last resort.