

## 2020 Public Safety Power Shutoff (PSPS) Post Event Report Review PacifiCorp

### Introduction and Recommendations:

In 2020, PacifiCorp initiated a total of three PSPS events. In one case, PacifiCorp combined two events into a single post event report. As a result, PacifiCorp submitted two post event reports to the California Public Utilities Commission (CPUC). The CPUC’s Safety and Enforcement Division (SED) reviewed the submitted reports to evaluate PacifiCorp’s compliance with the reporting requirements under Resolution ESRB-8, Decision 19-05-042 and Decision 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 - PacifiCorp 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	Sep. 13-17	3,159	2,559	6	1	0
2	Oct. 25	848	0	0	0	0

*data source: PacifiCorp 2020 PSPS post event reports and PacifiCorp’s responses to SED’s data requests.*

SED has found several issues and concerns and recommends that PacifiCorp take immediate corrective actions to comply with the guideline requirements.

### Compliance Review:

The results of the review are presented below in the order the existing guidelines were published.

#### I. ESRB – 8 Requirements:

1. *A notification to the Director of SED provided no later than 12 hours after the power shut-off.*

For the September 13, 2020, de-energization event, PacifiCorp notified SED within 12 hours after the power shut-off. For the September 17, 2020 and October 25, 2020 events, no customers were de-energized and no notifications were needed.

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.*

The PSPS post event report was submitted on October 1, 2020 and covered two events that ended on September 13 and September 17, respectively, and submitted the October 25, 2020 post event report on November 6, 2020. PacifiCorp met the reporting deadline of 10 business days on the September 17 and October 25 events. However, PacifiCorp did not meet the 10 days reporting deadline on the September 13 PSPS event. See details below:

**Table 2**

Dates	Event concluded	Report due dates	PacifiCorp's filing dates	Days overdue
Sep. 11-13	Sep. 13	Sep. 25	Oct. 1	6
Sep. 17	Sep. 17	Oct. 1	Oct. 1	On Time
Oct. 25	Oct. 25	Nov. 6	Nov. 6	On Time

3. *90The report should include:*

- a. *an explanation of the decision to shut off power;*

PacifiCorp explained its decision making process, as summarized below:

Based on weather forecast, PacifiCorp assessed whether the threshold values were to be exceeded. If the exceedance occurred and the coincidence warranted further advancement of a possible PSPS, PacifiCorp then reviewed current fire suppression and public safety partner resources and incorporated those into its decision-making process. To the extent that micro-sectionalization could occur, further time and place details were prepared including switching plans.

For SED's evaluation, see 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;*

PacifiCorp reported that it considered the following factors:

- Keetch Byram Drought Index (fuel moisture)
- Fosberg Fire Weather Index: averaged over 6 hours (temp/humidity)
- Wind gusts
- Vapor pressure deficit (recent drying)
- Red flag warnings
- Availability of fire suppression resources
- Input received about need for electric supply to support key public safety partner locations
- Observer input regarding weather impacts to electrical equipment and positioned at key risk locations
- Inputs regarding any observed precipitation (or other meteorological input) that could indicate limits to spread risks

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

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

PacifiCorp provided the time, place, and duration of the only shut-off event that ended with a power shutoff.

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

In the report on the September 13 – September 17 events, PacifiCorp’s breakdown of affected customers included a category called “medically sensitive,” “Medically sensitive” is not a required category. PacifiCorp must clearly report the number of affected customers by the required category.

*e. any wind-related damage to IOU’s overhead power-line facilities in the areas where power is shut off;*

PacifiCorp reported there was no equipment damage.

*f. a description of the notice to customers and any other mitigation provided by IOU;*

PacifiCorp reported it notified customers via individual phone calls, automated outbound calls, emails, and text messages, followed by updates to the company website and a media release.

For SED's evaluation of PacifiCorp's notification practice, see Section II. 2. b and Section II. 2. c. (evaluation of D.19-05-042 – Phase I Guidelines).

PacifiCorp described the patrolling process and vegetation inspection as mitigation measures to decrease fire risk. Given the location and speed of forecasted wind gusts on September 13, in addition to the recent fires in the area, PacifiCorp decided not to micro-sectionalize the two circuits located in the Weed PSPS area during the September 13 event.

- 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.*

PacifiCorp 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.*

PacifiCorp provided a list of local communities' representatives it contacted prior to the de-energization including the date of contact. The areas affected were classified as Tier 2 or Tier 3.

- 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.*

For SED's evaluation of PacifiCorp's notification practice, see Section II. 2. b. and 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.*

PacifiCorp reported it did not receive any customer complaints or claims related to these events.

- k. *The IOU shall provide detailed description of the steps it took to restore power.*

PacifiCorp reported that “[u]pon wind abatement, section by section patrols were undertaken, generally working from the substation out to the next sectionalizing device (be it line fuse, switch, recloser or jumper). When the patrols for that section were completed and confirmed, switching operations took place energizing that patrolled section. This process was conducted in parallel with multiple field teams to ensure rapid restoration of all segments. Thereafter, reclosers and substation relays were put back into normal protective settings modes.”

- l. *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.*

PacifiCorp stated that it did not activate its Community Resource Centers for any of the PSPS events, including the only de-energized September 13 event. PacifiCorp reported that the decision to not active the Community Resource Centers for the September 13 event was due to the short duration of the power shutoff, which was from 10:01am to 5:50 pm, and because it had been informed that the Governor’s Office of Emergency Services (CalOES) made alternate arrangements for the 70 evacuees from Happy Camp in the area.

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.*

PacifiCorp properly and timely notified the Director of SED. The notifications included the location, estimated number of customers affected, estimated starting time and end time, and estimated restoration time. PacifiCorp notified the Director of SED within 12 hours after power was fully restored.

## **II. D.19-05-042 (R.18-12-005 - 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 de-energization 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.*

PacifiCorp did not timely and properly serve the report for the September 13 – September 17 PSPS events. PacifiCorp served a report covering both events on October 1, 2020. Thus, PacifiCorp missed the deadline for the September 13 event. See details under Section I. 2. In addition, for both of the submitted reports covering September 13 -17 events and October 25 event, the emails to the service list did not include a link to the reports on PacifiCorp's website nor the contact information to submit comments to the Director of SED.

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 de-energized area*

PacifiCorp reported it utilizes quantitative and qualitative data to determine whether it is appropriate to employ PSPS. Inputs included: 1) long-term drying (which would prime the fuel to be highly favorable to fire spread), using Keetch Byram Drought Index (KBDI), 2) fire weather conditions, using a 6 hour Fosberg Fire Weather Index (FFWI6), and 3) winds exceeding sustained or gust threshold levels. Key threshold values for these inputs are:

- Keetch Byram Drought Index in excess of threshold value: 622.2
- Fosberg Fire Weather Index (averaged over 6 hours) in excess of threshold value: 30
- Wind gusts in excess of threshold value: 31 mph
- Vapor pressure deficit at or above 97% historical fire season levels

SED found the following issues:

- 1) For the September 13 – September 17 events, PacifiCorp did not provide the specific alternatives it considered nor the evaluation of the alternatives. Instead, PacifiCorp only stated that as fire weather metrics materialized, there were limited alternatives to PSPS. PacifiCorp further stated that minimization of the footprint and limiting the PSPS time was the most reasonable alternative available to limit community risks concurrent with limiting fire risk.
- 2) For the October 25 event, PacifiCorp reported the alternatives included patrols, modification of system protective settings (to non-reclosing) and reducing the footprint of the PSPS impacted area and the event’s duration. However, PacifiCorp did not evaluate each of the alternatives and how it applied in the decision-making process. .

- 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 notification description and the communication details, SED found the following deficiencies:

- 1) PacifiCorp did not meet the 48-72 hours advance public safety partner notification requirement for all the events. For the report on the September. 13 – 17 events, a total of 26 public safety partners, critical facilities and medically sensitive customers received delayed notifications. (p.47). For the October 25 event, a total of 28 public safety officials and critical customers received delayed notifications. (p.15-16)
- 2) PacifiCorp did not provide the public safety partner notification scripts. SED can not determine whether the notifications to public safety partners include the estimated power shutoff time, event duration, estimated time of restoration or the number of medical based line customers in the impacted areas.

- 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;*

PacifiCorp did not provide an explanation for the deviations from the

requirement as noted in section b above. PacifiCorp must provide its failures to provide notification and the related explanations in the post event report.

- 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;*

SED finds the following deficiencies:

- 1) PacifiCorp referred to its notification efforts to public safety partners and critical facilities as the responses to this requirement. Notification is only part of the IOU's engagement with local and state public safety partners. PacifiCorp must report the advanced education and outreach engagement.
- 2) PacifiCorp did not provide an evaluation its the engagement with local and state public safety partners.

- 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;*

SED noted the following issues:

- 3) For the September 13 – September 17 events, PacifiCorp only reported it notified medically sensitive customer, however, it did not disclose the number of notification attempts made and the number of successful notifications. In addition, PacifiCorp did not clearly state under which tariff and/or access and functional needs population designation the medically sensitive customers were included.
- 4) For the October 25 event, PacifiCorp provided statistics on positive notifications to non-critical customers. However, PacifiCorp did not clearly state under which tariff and/or access and functional needs population designation the non-critical customers were included.

- 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;*

PacifiCorp decided not to micro-sectionalize the two circuits located in the



Weed PSPS area due to the speed of forecasted wind gust for the September 13 event.

During the September 17 event and the October 25 event , micro-sectionalization was considered by PacifiCorp to limit the impact of potential de-energization although no customers were de-energized.

- g. *An explanation of how the utility determined that the benefit of de-energization outweighed potential public safety risks;*

Only the September 13 event resulted in actual de-energization. PacifiCorp stated that it “was concerned that weather and climatic conditions posed a risk of ignition that would quickly be spread beyond control, particularly due to the depletion of local fire suppression resources that were currently supporting fire response efforts elsewhere. During this time in northern California a number of fires were being fought, while in Oregon extremely large fires were being fought. Local public safety partners expressed concern for their ability to lend rapid support, should ignition occur. Communication with these partners, in addition to feedback provided by Cal OES, CalFIRE and community leaders indicated limited local safety risks, once relocation of Slater Fire evacuees was accommodated. PacifiCorp is cognizant of the stresses that de-energization imposes on communities and does not take the action to de-energize lightly. It uses the best information it has available and weighs the consequences of ignition against impacts of de-energization to ensure it is properly serving its customers and communities.”

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

For the only event where was de-energization, September 13, power was restored at 5:50 pm on the same day of shut off.

- i. *Lessons learned from the de-energization event;*

PacifiCorp reported the following lessons from its PSPS events.

- PacifiCorp needs to be more familiar with certain notification protocols that have been set up by other utilities and their public safety partners.
- PacifiCorp has identified the need for streamlining the records regarding outbound notifications.

- PacifiCorp is continuing to develop and update processes around notification and documentation of events, in an effort to create and increase cohesive communication and documentation between various departments involved in PSPS events.
  - Based on feedback from prior PSPS events, PacifiCorp learned that access to GIS data through shape files was not easily available. During the October 25 event, PacifiCorp advised its public safety partners of the opportunity and provided such files upon request
- j. *Any recommended updates to the guidelines adopted in Resolution ESRB-8 and this decision.*

PacifiCorp had no recommendations related to the guideline at this time.

### **III. R.18-12-005 Phase 2 Guidelines**

1. *CRCs shall be operable at least 8 AM-10 PM during an active de-energization 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.*

N/A. PacifiCorp did not open a CRC during the only de-energized event on September 13. See detail in Section I.3.1.

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.*

PacifiCorp was able to restore each impacted circuit within 24 hours from the conclusion of the event.

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.*

For the September 13-17 events, PacifiCorp did not enumerate nor explain the cause of any false communications in the report. For the October 25 event which ended up no power shutoff, PacifiCorp reported the number of positive notifications and number of unsuccessful notifications in satisfying this guideline requirement. Inaccurate communications are false communications. Unsuccessful notifications are not false communications

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 de-energization event (including information regarding why the de-energization event was a last resort option) and a specification of the factors that led to the conclusion of the de-energization event.*

For the October 25 event, PacifiCorp provided a table, comparing the predetermined threshold with forecast value and with the actual value for the quantitative attributes in the PSPS decision-making process. However, PacifiCorp did not provide a similar comparison table for the September 13-17 report.