

#### e-FILING REPORT COVER SHEET

# Send completed Cover Sheet and the Report in an email addressed to: <a href="PUC.FilingCenter@state.or.us">PUC.FilingCenter@state.or.us</a>

| REPORT NAME: Ma                               | ajor Event Report  |
|---|--|
| COMPANY NAME: Pa                              | cific Power  |
| DOES REPORT CONTA                             | AIN CONFIDENTIAL INFORMATION? No Yes   |
|   | mit only the cover letter electronically. Submit confidential information as directed in ne terms of an applicable protective order. |
| If known, please select d                     | esignation: RE (Electric) RG (Gas) RW (Water) RO (Other)   |
| Report is required by:                        | OAR 860-023-0161   |
|   | Statute  |
|   | ]Order   |
|   | ]Other   |
| Is this report associated v                   | with a specific docket/case?  No  Yes  |
| If yes, enter dock                            | et number: RE 107  |
| List applicable Key Wor<br>Major Event Report | ds for this report to facilitate electronic search:  |
|   | file with the PUC Filing Center: al Fee Statement form and payment remittance or   |



- OUS or RSPF Surcharge form or surcharge remittance or
- Any other Telecommunications Reporting or
- Any daily safety or safety incident reports or
- Accident reports required by ORS 654.715

Please file the above reports according to their individual instructions.



August 13, 2015

#### VIA ELECTRONIC FILING

Public Utility Commission of Oregon 201 High Street SE, Suite 100 Salem, OR 97301-1166

Attn: Filing Center

RE: PacifiCorp Major Event Report

In compliance with OAR 860-023-0161, PacifiCorp d/b/a Pacific Power (PacifiCorp or Company) submits the enclosed report describing a major event that occurred July 7-9, 2015, in the Company's *Southern Oregon* reliability reporting region.

The Company requests to exclude the outage information for this event from both its network performance reporting and customer guarantee failure payments.

If you require further information regarding this report, please contact Heide Caswell, Director, Engineering and Environmental, at (503) 813-6216.

Sincerely,

R. Bryce Dalley

Vice President, Regulation

Enclosure

cc: Lori Koho/Administrator, Safety, Reliability, and Security Division

## Report to the Public Utility Commission of Oregon

## **Electric Service Reliability - Major Event Report**

Event Date: July 7, 2015 7:57pm – July 9, 2015

12:00am

Date Submitted: August 13, 2015

Primary Affected Locations: Southern Oregon (Medford)

Primary Cause: Weather

Exclude from Reporting Status: Yes

Report Prepared by: April Brewer

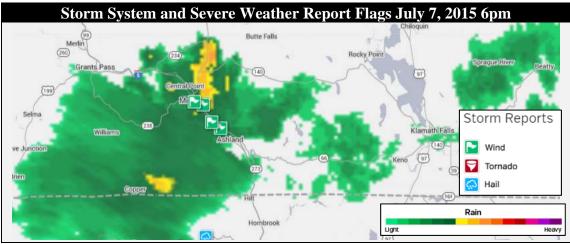
Report Approved by: Heide Caswell / Larry Young / Kevin

Putnam

### **Event Description**

At approximately 8 p.m. on Tuesday, July 7, 2015, a severe thunderstorm impacted the Medford, Oregon service area. The storm brought lightning, heavy rain, and strong winds reported between 55-60 mph. At the peak of the storm, 7,465 customers were without power. During the event 77 percent of customer outages were tree related and 21 percent were wind related. The longest outage of the event lasted 34 hours and affected a total of 23 customers. The following graphics display the weather radar at the storm's initial impact, severe weather reports made during the event, July 7, 2015, wind speed and gust, and hourly history and observation on July 7, 2015.

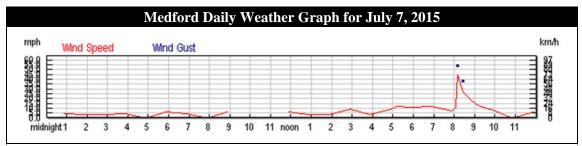
| Event Outage Sum                       | mary              |
|--|-------------------|
| # Interruptions (sustained)            | 124               |
| Total Customer Interrupted (sustained) | 7,755             |
| Total Customer Minutes Lost            | 2,805,891         |
| State Event SAIDI Impact               | 4.62 Minutes      |
| CAIDI                                  | 362               |
| Major Event Start                      | 7/7/15 7:57PM     |
| Major Event End                        | 7/9/15<br>12:00AM |



http://www.wunderground.com/wundermap

|       |                  | Severe We | ather R | eports for July 7, 2015  |
|-------|------------------|-----------|---------|--|
| Time  | Location         | County    | State   | Comments   |
| 22:50 | 2 ESE<br>TALENT  | JACKSON   | OR      | Broadcast met reported gusts of 50-60mph in Ashland (mfr).   |
| 23:00 | 1 NW<br>TALENT   | JACKSON   | OR      | Wind gusts knocked down power lines (mfr).   |
| 23:10 | 2 SSE<br>MEDFORD | JACKSON   | OR      | Trees down at church of Jesus Christ of latter-day saints (mfr).   |
| 23:30 | 2 SW<br>MEDFORD  | JACKSON   | OR      | Numerous reports throughout Medford of trees and power lines down. Also investigating a few reports of fires due to lightning (mfr). |

http://www.spc.noaa.gov/exper/archive/event.php?date=20150707



http://www.wunderground.com/history

|          | Ju         | ıly 7, 201           | 15 Medfo             | ord Hourly We          | eather History & Ob | servations                   |
|----------|------------|----------------------|----------------------|------------------------|---------------------|------------------------------|
| Time     | Temp.<br>F | Wind<br>Speed<br>MPH | Gust<br>Speed<br>MPH | Precipitation (Inches) | Events              | Conditions                   |
| 7:53 PM  | 88         | 6.9                  | -                    | N/A                    |                     | Scattered Clouds             |
| 8:04 PM  | 87.1       | 10.4                 | 19.6                 | N/A                    | Thunderstorm        | Mostly Cloudy                |
| 8:11 PM  | 78.1       | 44.9                 | 54.1                 | N/A                    | Thunderstorm        | Unknown                      |
| 8:25 PM  | 73.9       | 26.5                 | 38                   | 0                      | Rain-Thunderstorm   | Light Thunderstorms and Rain |
| 8:53 PM  | 70         | 17.3                 | -                    | 0.03                   | Rain-Thunderstorm   | Heavy Thunderstorms and Rain |
| 9:10 PM  | 69.1       | 12.7                 | 21.9                 | 0.04                   | Rain-Thunderstorm   | Light Rain                   |
| 9:28 PM  | 68         | 10.4                 | -                    | 0.04                   | Rain                | Light Rain                   |
| 9:53 PM  | 69.1       | 8.1                  | -                    | 0.04                   | Rain                | Light Rain                   |
| 10:53 PM | 69.1       | Calm                 | -                    | 0                      |                     | Clear                        |

| 11:53 PM | 68 | 5.8 | - | N/A | Clear |
|----------|----|-----|---|-----|-------|

http://www.wunderground.com/history

#### **Restoration Summary**

Medford personnel were promptly dispatched to begin troubleshooting and assessing with restoration efforts focused initially on five substation circuits that had locked out. Additional line crew resources from Grants Pass, vegetation crews, and district crews augmented the Medford team and worked to locate and isolate trouble spots on the lines, ultimately restoring power to the majority of customers (approximately 6,400) on these circuits by 4 a.m. on July 8, 2015. Additional crews and contract resources were brought in from Klamath Falls and Yreka service areas on the morning of July 8, 2015, and restoration work for the remaining customers continued throughout the day. Crews worked to repair 15 locations of downed primary wire, replaced one broken transmission pole and six broken distribution poles, replaced 14 blown transformers, and made repairs to numerous individual services that had been taken down by trees and limbs. By late afternoon power had been restored to approximately 1,100 customers, and by 8 p.m. the number of customers remaining without power was less than 75. Full restoration was achieved in the early morning on July 9, 2015. A total of 57 personnel participated in restoration work including seven line crews, 11 first responders/assessors, three tree crews, and 13 support/logistics personnel.

There was one company customer complaint but no commission customer complaints made regarding the major event.

#### **Restoration Intervals**

| Total<br>Customers<br>Sustained | < 3 Hrs. | 3 - 24 Hrs. | 24+ Hrs. | 36+ Hrs. |
|---------------------------------|----------|-------------|----------|----------|
| 7,755                           | 1,342    | 6,382       | 31       | 0        |

### **Restoration Resources**

| Personnel Resources |    |
|---------------------|----|
| Estimators          | 3  |
| Wires Journeyman    | 22 |
| General Foreman     | 1  |
| Site Agent          | 1  |
| Mechanic            | 1  |
| Support Staff       | 2  |
| TOTAL               | 30 |

| Materials   |          |
|---|----------|
| Approximate Line Feet (conductor)                       | 2,163 ft |
| Breakers & Switches                                     | 8        |
| Pole Hardware (crossarms, braces, covers, guards, ect.) | 19       |
| Insulators  | 24       |
| Other Equipment/Supplies                                | 104      |

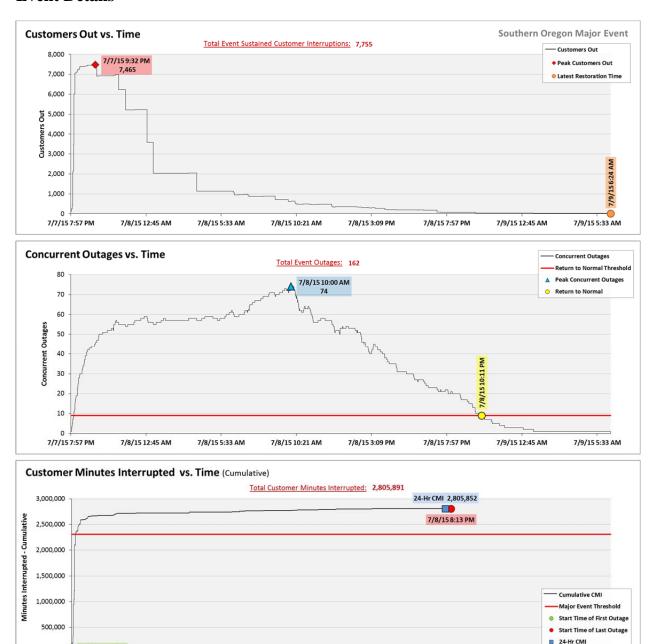
# **State Estimated Major Event Costs**

| Estimate \$ | Labor    | Materials | Total     |
|-------------|----------|-----------|-----------|
| Capital     | \$0      | \$0       | \$0       |
| Expense     | \$77,171 | \$40,428  | \$117,599 |
| Total       | \$77,171 | \$40,428  | \$117,599 |

### **Major Event Declaration**

PacifiCorp designates these events and the consequences thereof a major event in accordance with OAR 860-023-0161. This is a major event because it exceeded the design or operating limits of the system, and the Major Event Threshold for the reliability reporting region as calculated annually by the company according to IEEE 1366-2003 methodology (commonly referred to as the 2.5 beta method). This company's 2015 Southern Oregon reliability reporting region threshold is 2,306,700 customer minutes lost (10.13 Southern Oregon SAIDI minutes) in a 24-hour period.

### **Event Details**



## SAIDI, SAIFI, CAIDI by Reliability Reporting Region

7/8/15 5:33 AM

7/8/15 10:21 AM

7/8/15 3:09 PM

7/8/15 7:57 PM

7/9/15 12:45 AM

Please see the attached system-generated reports.

7/8/15 12:45 AM

0 7/7/157:57 PM 7/7/157:57 PM 7/

7/9/15 5:33 AM

# PacifiCorp Major Event Report Customer Analysis

|    | Oregon<br>7/07/2015 to 7/08/2015                       |                               | 7/7/2015                        | through<br>Customer Anal | 7/8/2015<br>ysis                        |                   | Customers Restored by Intervals |                    |                       |                      |                       |                       |           |  |       | Major Event Only |       |  |
|----|--|-------------------------------|---------------------------------|--------------------------|---|-------------------|---------------------------------|--------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------|--|-------|------------------|-------|--|
|    | PacifiCorp<br>Major Events Report<br>Customer Analysis | Sustained<br>Customers<br>Off | % Sustained<br>Customers<br>Off | CML                      | Number of<br>Sustained<br>Interruptions | Customer<br>Count | <= 5 min                        | > 5 min < 3<br>hrs | >= 3 hrs <=<br>24 hrs | > 24 hrs <<br>48 hrs | >= 48 hrs <<br>72 hrs | >= 72 hrs <<br>96 hrs | >= 96 hrs | Sustained<br>Customers<br>Restored in<br>3 Hours PS4 |       | SAIFI            | CAIDI |  |
|    |  |                               |                                 |                          |   |                   |                                 |                    |                       |                      |                       |                       |           |  |       |                  |       |  |
| PC | PACIFICORP   | 7,755                         | 0%                              | 2,805,891                | 124                                     | 1,887,237         | 39,271                          | 1,342              | 6,382                 | 31                   | 0                     | 0                     | (         | 17%  | 1.49  | 0.00             | 362   |  |
| PP | Pacific Power  | 7,755                         | 1%                              | 2,805,891                | 124                                     | 793,118           | 39,271                          | 1,342              | 6,382                 | 31                   | 0                     | 0                     | (         | 17%  | 3.54  | 0.01             | 362   |  |
| OR | Oregon   | 7,755                         | 1%                              | 2,805,891                | 124                                     | 607,450           | 39,271                          | 1,342              | 6,382                 | 31                   | 0                     | 0                     | (         | 17%  | 4.62  | 0.01             | 362   |  |
| SO | South OR   | 7,755                         | 3%                              | 2,805,891                | 124                                     | 227,722           | 39,271                          | 1,342              | 6,382                 | 31                   | 0                     | 0                     | (         | 17%  | 12.32 | 0.03             | 362   |  |
| OR | GRANTS PASS  | 18                            | 0%                              | 407                      | 2                                       | 52,490            | 0                               | 18                 | 0                     | 0                    | 0                     | 0                     | (         | 100%   | 0.01  | 0.00             | 23    |  |
| OR | KLAMATH FALLS  | 12                            | 0%                              | 2,769                    | 6                                       | 39,334            | 0                               | 3                  | 9                     | 0                    | 0                     | 0                     | C         | 25%  | 0.07  | 0.00             | 231   |  |
| OR | MEDFORD  | 7,711                         | 9%                              | 2,800,031                | 112                                     | 90,122            | 39,067                          | 1,317              | 6,363                 | 31                   | 0                     | 0                     | (         | 17%  | 31.07 | 0.09             | 363   |  |
| OR | ROSEBURG/MYRTLECREEK                                   | 14                            | 0%                              | 2,684                    | 4                                       | 43,233            | 204                             | 4                  | 10                    | 0                    | 0                     | 0                     | 0         | 29%  | 0.06  | 0.00             | 192   |  |

|          |                               | Custor<br>7/7/2015              | mer Interrupte<br>through | d by Date<br>7/9/2015                   |                              | Customers Restored by Intervals |                    |                       |                      |                       |                       |           |   |  |  |  |
|----------|-------------------------------|---------------------------------|---------------------------|---|------------------------------|---------------------------------|--------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------|---|--|--|--|
| Date     | Sustained<br>Customers<br>Off | % Sustained<br>Customers<br>Off | CML                       | Number of<br>Sustained<br>Interruptions | Average<br>Customer<br>Count | <= 5 min                        | > 5 min < 3<br>hrs | >= 3 hrs <=<br>24 hrs | > 24 hrs <<br>48 hrs | >= 48 hrs <<br>72 hrs | >= 72 hrs <<br>96 hrs | >= 96 hrs | % Sustained Customers Restored in 3 Hours PS4 |  |  |  |
| 7/7/2015 | 8                             | 0%                              | 2,210                     | 3                                       | 39,334                       | 0                               | 1                  | 7                     | 0                    | 0                     | 0                     | 0         | 13%   |  |  |  |
| 7/7/2015 | 7,524                         | 8%                              | 2,715,356                 | 56                                      | 90,122                       | 39,067                          | 1,291              | 6,202                 | 31                   | 0                     | 0                     | 0         | 17%   |  |  |  |
| 7/7/2015 | 1                             | 0%                              | 57                        | 1                                       | 43,233                       | 0                               | 1                  | 0                     | 0                    | 0                     | 0                     | 0         | 100%  |  |  |  |
| 7/8/2015 | 18                            | 0%                              | 407                       | 2                                       | 52,490                       | 0                               | 18                 | 0                     | 0                    | 0                     | 0                     | 0         | 100%  |  |  |  |
| 7/8/2015 | 4                             | 0%                              | 559                       | 3                                       | 39,334                       | 0                               | 2                  | 2                     | 0                    | 0                     | 0                     | 0         | 50%   |  |  |  |
| 7/8/2015 | 187                           | 0%                              | 84,675                    | 56                                      | 90,122                       | 0                               | 26                 | 161                   | 0                    | 0                     | 0                     | 0         | 14%   |  |  |  |
| 7/8/2015 | 13                            | 0%                              | 2,628                     | 3                                       | 43,233                       | 204                             | 3                  | 10                    | 0                    | 0                     | 0                     | 0         | 23%   |  |  |  |

Data as of 7/15/2015

# PacifiCorp Major Event Report SSC by State Analysis

|    | Oregon                 | Event  |              | 07/07/15 | through               | 7/8/2015 |       | Month                 |       | 07/01/15 | through               | 7/15/2015 |       | YTD    | FY2016        | 01/01/15 | through | 07/15/15     |       |
|----|------------------------|--------|--------------|----------|-----------------------|----------|-------|-----------------------|-------|----------|-----------------------|-----------|-------|--------|---------------|----------|---------|--------------|-------|
|    | 7/07/2015 to 7/08/2015 | Major  | Events Inclu | ıded     | Major Events Excluded |          |       | Major Events Included |       |          | Major Events Excluded |           |       | Мајо   | r Events Incl | uded     | Majo    | r Events Exc | luded |
|    | PacifiCorp             |        |              |          |                       |          |       |                       |       |          |                       |           |       |        |               |          |         |              |       |
|    | Major Events Report    |        |              |          |                       |          |       |                       |       |          |                       |           |       |        |               |          |         |              |       |
|    | SSC by State           | SAIDI  | SAIFI        | CAIDI    | SAIDI                 | SAIFI    | CAIDI | SAIDI                 | SAIFI | CAIDI    | SAIDI                 | SAIFI     | CAIDI | SAIDI  | SAIFI         | CAIDI    | SAIDI   | SAIFI        | CAIDI |
|    |                        |        |              |          |                       |          |       |                       |       |          |                       |           |       |        |               |          |         |              |       |
| PC | PacifiCorp             | 1.49   | 0.004        | 362      | 0                     | 0        | 0     | 13.92                 | 0.101 | 138      | 9.78                  | 0.087     | 113   | 124.71 | 0.787         | 158      | 82.75   | 0.651        | . 127 |
| PP | Pacific Power          | 3.54   | 0.010        | 362      | 0                     | 0        | 0     | 17.77                 | 0.109 | 162      | 7.92                  | 0.075     | 105   | 121.52 | 0.733         | 166      | 63.87   | 0.533        | 120   |
|    | r deme r owe.          | 5.5 .1 | 0.010        | 302      |                       |          |       | 27.77                 | 0.105 | 102      | 7.52                  | 0.075     | 100   | 121.02 | 0.755         | 100      | 00.07   | 0.555        | 120   |
| OR | Oregon                 | 4.62   | 0.013        | 362      | 0                     | 0        | 0     | 17.99                 | 0.096 | 187      | 5.13                  | 0.052     | 99    | 115.08 | 0.716         | 161      | 62.67   | 0.532        | 118   |
| SO | South OR               | 4.62   | 0.013        | 362      | ام                    | ٥        |       | 7.23                  | 0.048 | 150      | 2.62                  | 0.035     | 7.4   | 51.63  | 0.246         | 210      | 29.61   | 0.181        | 164   |
| 30 | South OR               | 4.02   | 0.013        | 302      | U                     | U        | 0     | 7.23                  | 0.048 | 150      | 2.02                  | 0.035     | /4    | 51.03  | 0.246         | 210      | 29.01   | 0.181        | 104   |
| OR | GRANTS PASS            | 0.00   | 0.000        | 23       | 0                     | 0        | 0     | 0.36                  | 0.006 | 60       | 0.36                  | 0.006     | 60    | 12.72  | 0.050         | 254      | 10.79   | 0.046        | 235   |
| OR | KLAMATH FALLS          | 0.00   | 0.000        | 231      | 0                     | 0        | 0     | 0.69                  | 0.006 | 122      | 0.69                  | 0.006     | 121   | 12.05  | 0.068         | 177      | 6.95    | 0.058        | 120   |
| OR | LAKEVIEW               | 0.00   | 0.000        | 0        | 0                     | 0        | 0     | 0.00                  | 0.000 | 0        | 0.00                  | 0.000     | 0     | 0.05   | 0.000         | 0        | 0.05    | 0.000        | 0     |
| OR | MEDFORD                | 4.61   | 0.013        | 363      | 0                     | 0        | 0     | 6.01                  | 0.035 | 172      | 1.40                  | 0.022     | 63    | 15.83  | 0.075         | 211      | 6.21    | 0.052        | 120   |
| OR | ROSEBURG/MYRTLECREEK   | 0.00   | 0.000        | 192      | 0                     | 0        | 0     | 0.17                  | 0.002 | 106      | 0.16                  | 0.002     | 105   | 10.98  | 0.053         | 207      | 5.61    | 0.025        | 224   |

Data as of 7/15/2015