



e-FILING REPORT COVER SHEET

COMPANY NAME: PacifiCorp d/b/a Pacific Power

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes If yes, submit a redacted public version (or a cover letter) by email. Submit the confidential information as directed in OAR 860-001-0070 or the terms of an applicable protective order.

Select report type: RE (Electric) RG (Gas) RW (Water) RT (Telecommunications)
 RO (Other, for example, industry safety information)

Did you previously file a similar report? No Yes, report docket number: RE 107

Report is required by: OAR 860-023-0161

Statute

Order

Note: A one-time submission required by an order is a compliance filing and not a report (file compliance in the applicable docket)

Other

(For example, federal regulations, or requested by Staff)

Is this report associated with a specific docket/case? No Yes, docket number: RE 107

List Key Words for this report. We use these to improve search results.

Major Event Report

Send the completed Cover Sheet and the Report in an email addressed to PUC.FilingCenter@state.or.us

Send confidential information, voluminous reports, or energy utility Results of Operations Reports to PUC Filing Center, PO Box 1088, Salem, OR 97308-1088 or by delivery service to 201 High Street SE Suite 100, Salem, OR 97301.



825 NE Multnomah, Suite 2000
Portland, Oregon 97232

April 2, 2020

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
201 High Street SE, Suite 100
Salem, OR 97301-3398

Attn: Filing Center

RE: RE 107—PacifiCorp Major Event Report

In compliance with OAR 860-023-0161, PacifiCorp d/b/a Pacific Power (PacifiCorp or the Company) submits the enclosed report describing the major event that occurred February 23, 2020, in the Company's Northeast Oregon reliability reporting region.

PacifiCorp 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,

A handwritten signature in blue ink, appearing to read "Michael Wilding".

Michael Wilding
Director, Regulation

Enclosure

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

Report to the Oregon Public Utility Commission
Electric Service Reliability - Major Event Report

Event Date: February 23, 2020
 Date Submitted: April 2, 2020
 Primary Affected Locations: Northeast Oregon
 Primary Cause: Wind Storm
 Exclude from Reporting Status: Yes
 Report Prepared by: April Brewer
 Report Approved by: Heide Caswell / Carrie Laird

Event Outage Summary	
# Interruptions (sustained)	20
Total Customer Interrupted (sustained)	857
Total Customer Minutes Lost	351,569
State Event SAIDI	0.57 Minutes
CAIDI	410
Major Event Start	2/23/2020 12:00 AM
Major Event End	2/24/2020 12:00 AM

Event Description and Restoration Summary

On February 23, 2020, Northeast Oregon, began experiencing a series of outages that triggered major event designation when a wind storm damaged trees that downed many electrical lines across the region (see figure 1). During the storm the area experienced sustained winds, with gusts as high as 50 mph. At approximately 11:00 a.m., winds began to pick up (figure 2) and by 11:05 a.m., the region began experiencing outages. The number of outage events rapidly increased to 15 events in under two hours, an unusual amount for a region that provides power to only 25,500 customers.

The Pendleton and Enterprise operating areas were hit the hardest during the event, accounting for 91% of all customer minutes interrupted and 81% of all customer outages. Several outage events occurred in areas where access was limited, such as private property where crews were unable to access with equipment, which slowed repair and restoration. In addition, trees downed primary conductor and five poles, blocking a portion of Interstate 84.

During the event all available lineman and tree crew resources in the area were dispatched to trouble locations. Additionally, two line crews from outside the region were brought in to assist with customer restorations. Twenty sustained outages occurred during the day affecting 857 customers with outage durations ranging from 1 hour 27 minutes to 21 hours 51 minutes.

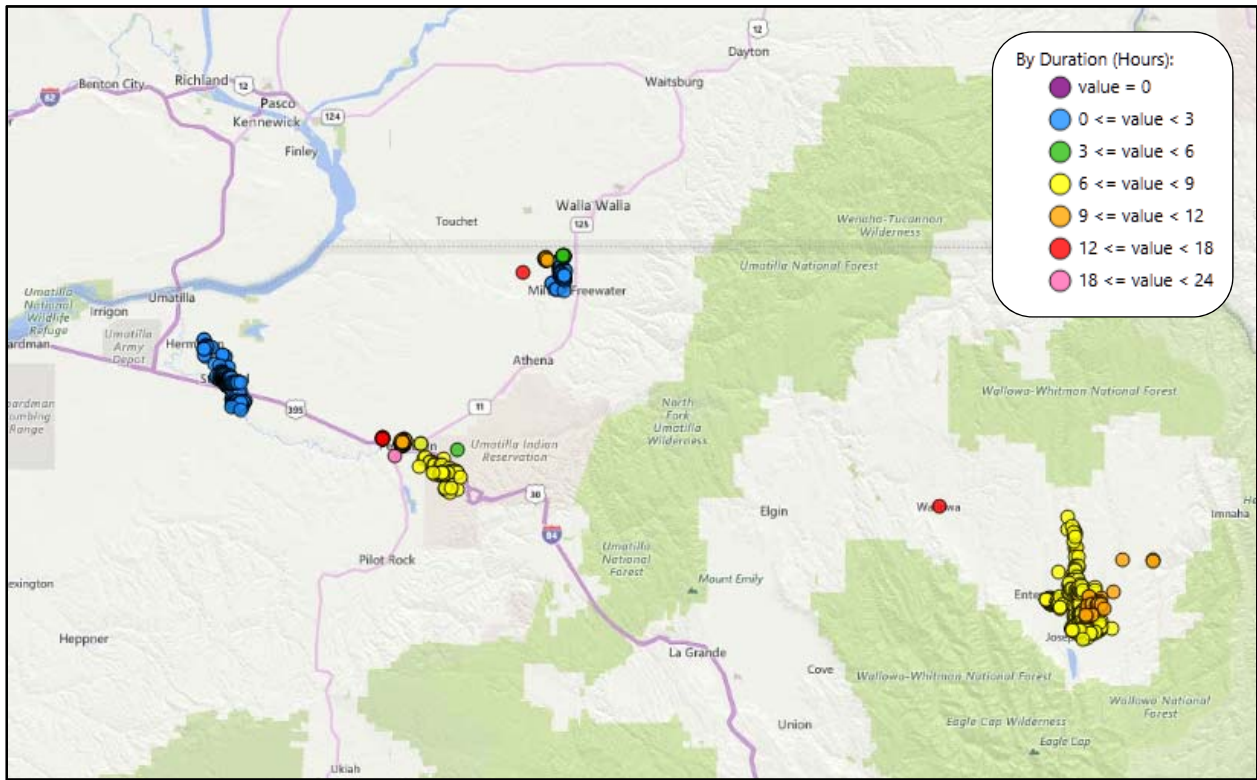


Figure 1: Outages experienced during the major event by duration.

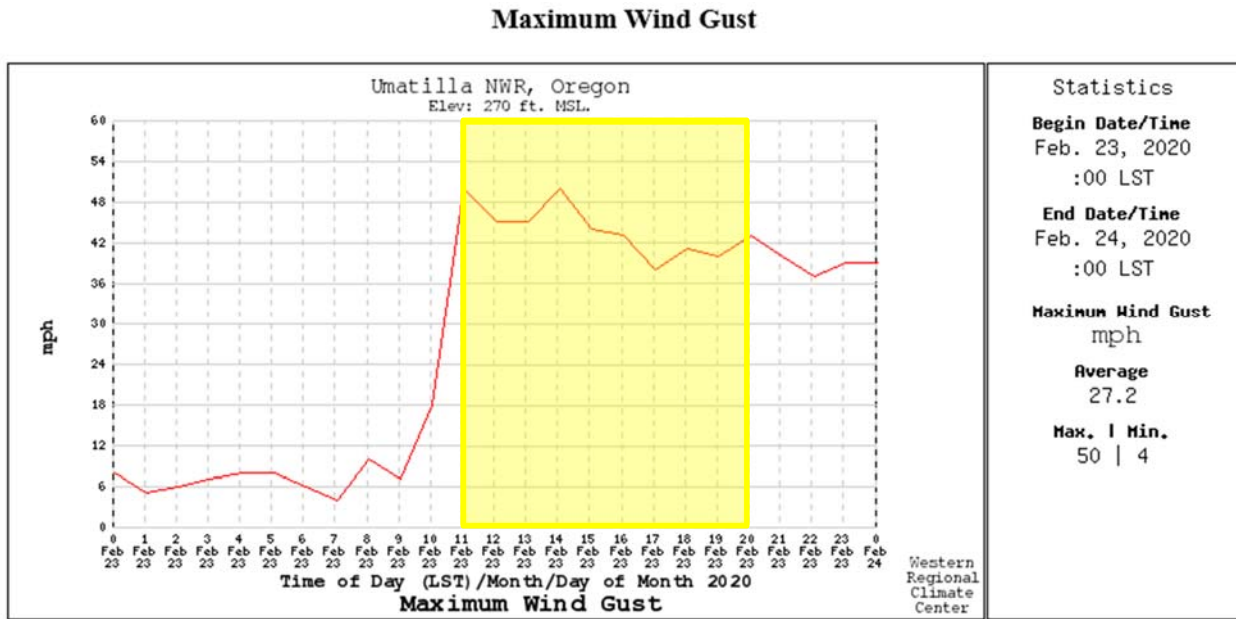


Figure 2: February 23, 2020 wind data.

Restoration Intervals for Customers during Major Event

Total Customers Sustained	< 3 Hrs.	3 - 24 Hrs.	24-48 Hrs.
1,396	143	714	0

Restoration Resources ¹

Personnel Resources	
Collector	1
Estimator	2
General Foreman	2
Line Foreman	4
Lineman	6
Logistics	1
Mechanic	1
Serviceman	3
Tree crewmen	7
Flaggers	6
Contract crewman	13

Equipment Resources	
Distribution poles	1
Approx. Conductor Line	730 ft
Transformers	4
Crossarms	2
Insulators	33
Cutouts	4
Line splices	26

State Estimated Major Event Costs ²

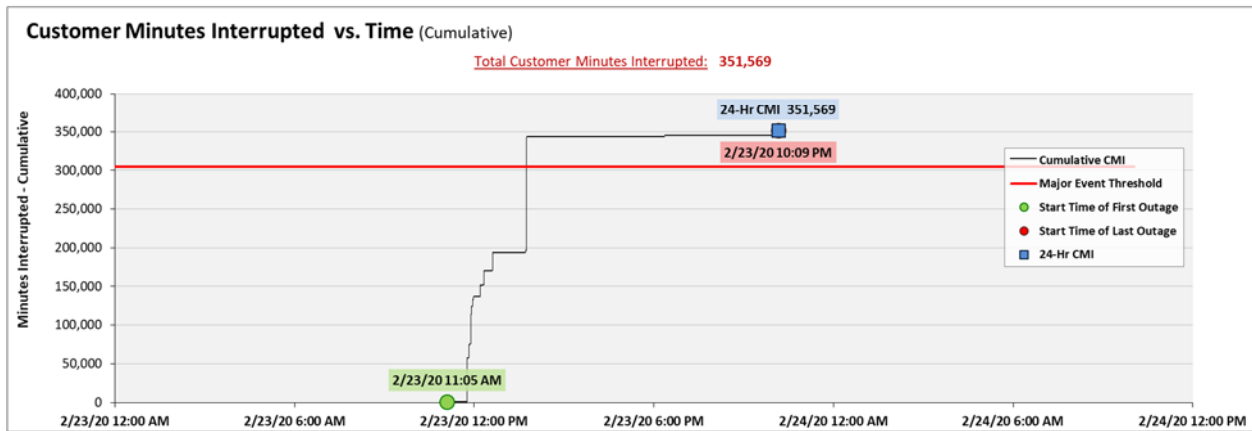
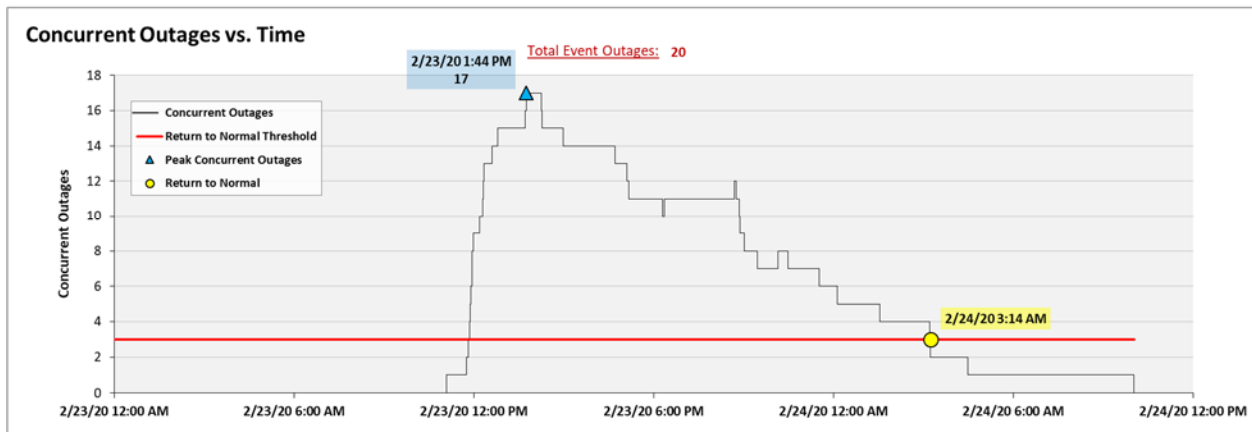
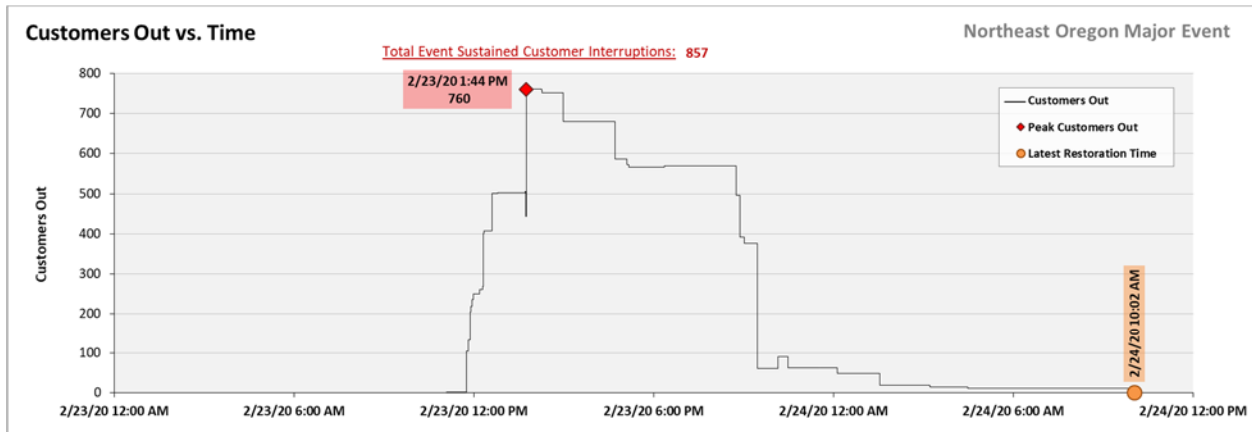
Estimate \$	Labor	Contracts	Materials	Overheads	Total
Capital	\$11,076	\$37,372	\$9,445	\$4,783	\$62,676
Expense	\$32,192	\$40,073	\$658	\$2,153	\$75,075
Total	\$43,268	\$77,445	\$10,103	\$6,936	\$137,751

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 Northeast Oregon as calculated annually by the company according to IEEE 1366-2003 methodology (commonly referred to as the 2.5 beta method). The company's 2020 Northeast Oregon reliability threshold is 305,107 customer minutes lost (11.94 Northeast Oregon SAIDI minutes) in a 24-hour period.

¹ Data provided represents specific system records for personnel, resources, and costs; and is specific to the event, not inclusive of state delineation. However, additional resources whose participation did not get individually captured in transaction recording systems were utilized during the event, thus the data presented here effectively understates the resources, including cost, involved in restoring the system to normal.

Event Detail



SAIDI, SAIFI, CAIDI by Reliability Reporting Region

Please see the attached system-generated reports.

PacifiCorp Major Event Report

Customer Analysis

Central Oregon		Customer Analysis 2/23/2020 through 2/24/2020					Customers Restored by Intervals								Major Event Only - metric by operating area customer counts		
PacifiCorp Major Events Report Customer Analysis*		Sustained Customers Off	% Sustained Customers Off	CML	Number of Sustained Interruptions	Customer Count	< 5 min	5 min - 3 hrs	3 hrs - 24 hrs	24 hrs - 48 hrs	48 hrs - 72 hrs	72 hrs - 96 hrs	96 + hrs	% Sustained Customers Restored in 3 Hours PS4	SAIDI	SAIFI	CAIDI
PC	PACIFICORP	857	0%	351,569	20	1,982,346	1,396	143	714	-	-	-	-	14%	0.18	0.000	410
PP	Pacific Power	857	0%	351,569	20	799,297	1,396	143	714	-	-	-	-	14%	0.44	0.001	410
OR	Oregon	857	1%	351,569	20	617,333	1,396	143	714	-	-	-	-	14%	0.57	0.001	410
OR	ENTERPRISE	350	6%	155,658	3	5,476	-	-	350	-	-	-	-	0%	28.43	0.064	445
OR	HERMISTON	-	0%	-	-	4,829	1,396	-	-	-	-	-	-	0%	-	-	-
OR	PENDLETON	343	3%	166,032	13	12,943	-	9	334	-	-	-	-	3%	12.83	0.027	484
OR	WALLA WALLA	164	7%	29,880	4	2,312	-	134	30	-	-	-	-	82%	12.92	0.071	182

*Only current event specific metric impact shown. Does not include values from other events which may have occurred in other regions during the same time period.

		Customer Interrupted by Date 2/23/2020 through 2/24/2020					Customers Restored by Intervals								Major Event Only - metric by state customer counts		
Date*		Sustained Customers Off	% Sustained Customers Off	CML	Number of Sustained Interruptions	Average Customer Count	< 5 min	5 min - 3 hrs	3 hrs - 24 hrs	24 hrs - 48 hrs	48 hrs - 72 hrs	72 hrs - 96 hrs	96 + hrs	% Sustained Customers Restored in 3 Hours PS4	SAIDI	SAIFI	CAIDI
2/23/2020		857	0%	351,569	20	617,333	1,396	143	714	-	-	-	-	17%	0.57	0.001	410

Data as of
3/17/2020

PacifiCorp Major Event Report

Customer Analysis

	Central Oregon	Event 02/23/20 through 02/24/20						Month 02/01/20 through 02/29/20						YTD FY2021 01/01/20 through 02/29/20					
		Major Events Included			Major Event Excluded			Major Events Included			Major Events Excluded*			Major Events Included			Major Events Excluded*		
		SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
	PacifiCorp Major Events Report SSC by State																		
PC	PacifiCorp	1.44	0.008	186	0.65	0.006	111	7.16	0.066	108	6.38	0.065	99	40.31	0.180	224	12.08	0.126	96
Comp	Power Company	2.85	0.010	285	0.90	0.005	165	8.66	0.058	148	6.72	0.054	125	80.26	0.227	353	14.23	0.132	108
ST	State	3.05	0.010	297	0.53	0.004	120	8.33	0.057	146	5.81	0.051	113	91.59	0.221	414	12.67	0.127	100
OR	ALBANY	0.00	0.000	115	0.00	0.000	115	0.13	0.001	184	0.13	0.001	184	0.58	0.005	129	0.54	0.004	123
OR	BEND/REDMOND **	1.94	0.004	438	-	-	-	2.11	0.007	296	0.18	0.003	65	2.19	0.008	280	0.25	0.003	75
OR	CLATSOP (ASTORIA)	0.08	0.000	321	0.079	0.000	321	0.83	0.006	131	0.83	0.006	131	1.62	0.030	53	1.43	0.029	50
OR	COOS BAY/COQUILLE	-	-	-	-	-	-	0.21	0.001	168	0.21	0.001	168	0.76	0.005	142	0.68	0.004	160
OR	CORVALLIS	0.02	0.000	322	0.02	0.000	322	0.03	0.000	180	0.03	0.000	180	0.23	0.002	130	0.23	0.002	132
OR	COTTAGE GROVE/J.CITY	-	-	-	-	-	-	0.91	0.011	83	0.91	0.011	83	1.25	0.014	91	1.21	0.014	89
OR	DALLAS/INDEPENDENCE	0.02	0.000	216	0.021	0.000	216	0.05	0.000	122	0.05	0.000	122	0.26	0.002	169	0.26	0.002	170
OR	ENTERPRISE *	0.25	0.001	445	-	-	-	0.37	0.001	316	0.12	0.001	197	0.43	0.002	286	0.17	0.001	192
OR	GRANTS PASS	0.01	0.000	141	0.01	0.000	141	0.54	0.003	213	0.54	0.003	213	69.96	0.052	1,333	1.11	0.007	155
OR	HERMISTON *	-	-	-	-	-	-	0.24	0.002	98	0.24	0.002	98	0.27	0.003	110	0.25	0.002	104
OR	HOOD RIVER	0.01	0.000	107	0.011	0.000	107	0.11	0.001	113	0.11	0.001	113	0.22	0.002	131	0.21	0.002	129
OR	KLAMATH FALLS	-	-	-	-	-	-	0.01	0.000	117	0.01	0.000	117	0.31	0.002	170	0.26	0.002	158
OR	LAKEVIEW	-	-	-	-	-	-	0.00	0.000	227	0.00	0.000	227	0.02	0.000	94	0.02	0.000	94
OR	LEBANON	0.00	0.000	21	0.00	0.000	21	0.06	0.000	239	0.06	0.000	239	0.13	0.001	160	0.11	0.001	156
OR	LINCOLN CITY	-	-	-	-	-	-	0.62	0.008	80	0.62	0.008	80	1.35	0.016	84	1.35	0.016	84
OR	MADRAS **	0.02	0.000	204	-	-	-	0.06	0.000	148	0.05	0.000	135	0.11	0.001	96	0.08	0.001	129
OR	MEDFORD	0.00	0.000	174	0.000	0.000	174	0.38	0.007	58	0.38	0.007	58	4.06	0.020	205	1.37	0.012	118
OR	PENDLETON *	0.27	0.001	484	-	-	-	0.43	0.001	432	0.16	0.000	364	0.56	0.002	354	0.25	0.001	287
OR	PORTLAND	0.00	0.000	58	0.00	0.000	58	0.53	0.002	218	0.53	0.002	218	1.27	0.004	304	0.83	0.003	241
OR	ROSEBURG/MYRTLECREEK	-	-	-	-	-	-	0.24	0.000	597	0.24	0.000	597	5.01	0.042	118	1.26	0.014	91
OR	STAYTON	0.39	0.004	101	0.39	0.004	101	0.40	0.004	102	0.40	0.004	102	0.78	0.009	90	0.68	0.008	89
OR	WALLA WALLA *	0.05	0.000	182	-	-	-	0.07	0.000	219	0.02	0.000	517	0.20	0.001	198	0.13	0.001	191

May include other regional major event exclusions during the same period. Operating areas are calculated by the state frozen customer count metrics.

* Northeast Oregon Major event exclusions

** Central Oregon Major event exclusions

Data as/of
3/17/2020