

Report to the Washington Utilities and Transportation Commission
Electric Service Reliability - Major Event Report

Event Date: July 9, 2018
Date Submitted: August 15, 2018
Primary Affected Locations: Walla Walla
Primary Cause: Loss of Substation – Animal interference
Exclude from Reporting Status: Yes
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Report Approved by: Heide Caswell / David O’Neil / Pablo Arronte

Event Description and Restoration Summary

At 8:02 AM on July 9, 2018, Pacific Power experienced a major event in its Washington service territory when a squirrel caused damage to the circuit breaker by-pass disconnect at the Mill Creek Substation. The fault caused the power fuses to operate at both station transformers. The event initially affected 8,582 customers, fed from the five distribution circuits served by the Mill Creek substation in Walla Walla.

While diagnostic tests of the station equipment was underway, the network configuration was evaluated in an attempt to locate adjacent feeds that could be utilized to restore some of the affected customers. Additional crews were subsequently dispatched to restore a portion of the customers using a feeder tie out of the Central Substation. However, when the switching was initiated the load-breaking function did not operate properly causing the Central substation circuit breaker to trip, interrupting an additional 639 customers, totaling 9,221 customers affected.

At 12:17 PM work was completed the station’s transformer fuses were replaced and four of the five Mill Creek circuits were restored. Meanwhile, a separate crew began repairing equipment and restoring customers fed from the Central substation. At 4:14 PM work to restore the circuit fed by the Central substation was completed and the 639 customers affected were brought back in power. At 5:59 PM step restoration of the remaining circuit fed from Mill Creek substation began and at 6:50 PM all customers served by the Mill Creek substation were restored. In total, customers experienced outages ranging in duration from 4 hours 14 minutes to 10 hours 47 minutes.

Event Outage Summary	
# Interruptions (sustained)	13
Total Customer Interrupted (sustained)	9,944
Total Customer Minutes Lost	3,147,290
State Event SAIDI	23.21 Minutes
CAIDI	317
Major Event Start	7/9/18 8:02 AM
Major Event End	7/10/18 8:02 AM

Restoration Intervals

Total Customers Sustained	< 3 Hrs.	3 - 24 Hrs.	24+ Hrs.
9,944	655	9,289	0

Restoration Resources

Personnel Resources	
Substation Crewmembers	4
Field Journeyman	10
Foreman	1
TOTAL	15

Materials	
Line Fuse	6
Animal Guard	12

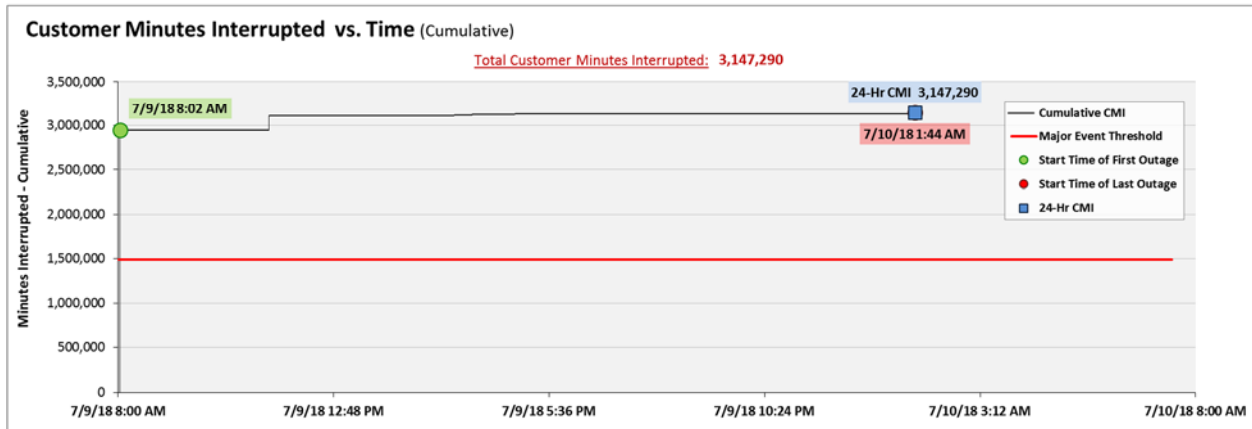
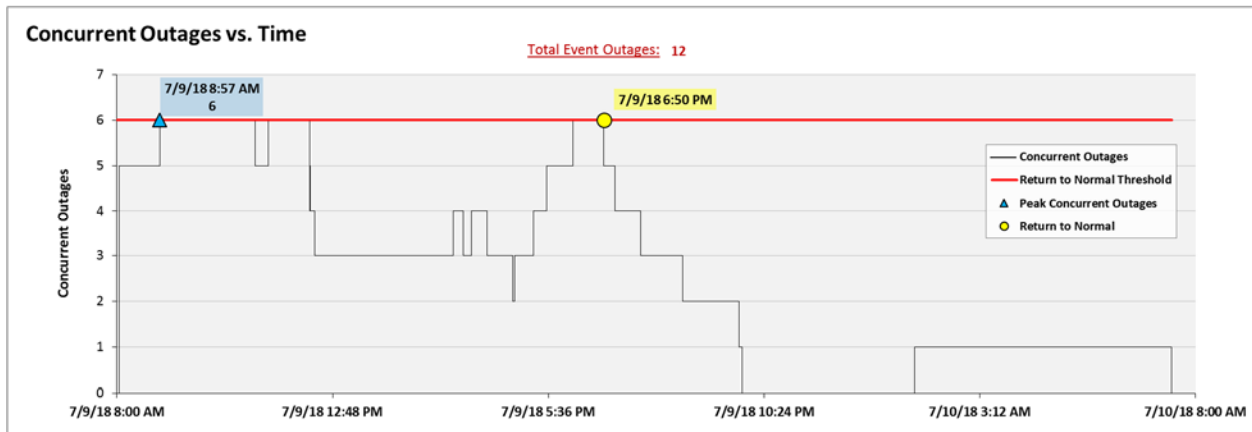
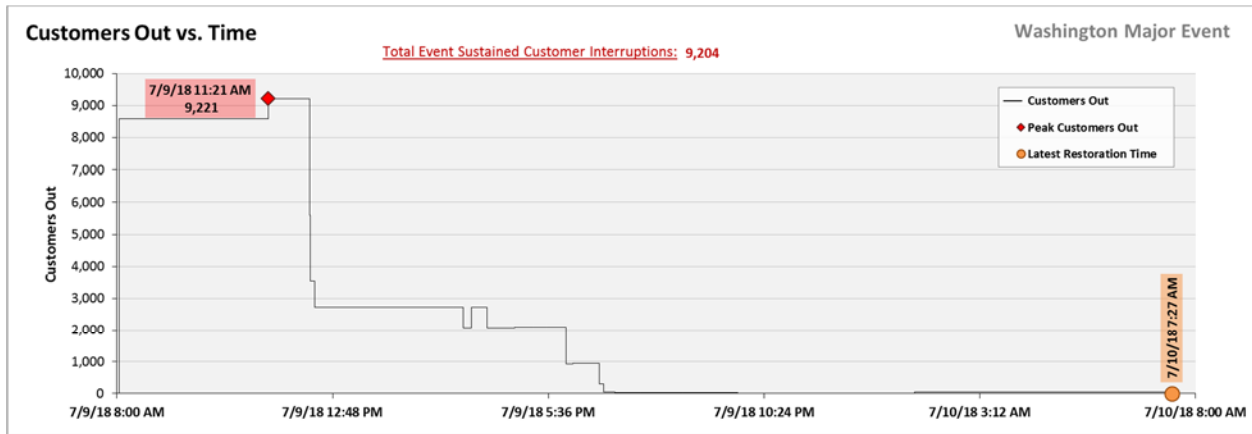
State Estimated Major Event Costs

Estimate \$	Labor	Material	Overheads	Total
Capital	\$22,617	\$8,558	\$1,632	\$32,807
Expense	\$1,313	\$3,245	\$836	\$5,394
Total	\$23,930	\$11,803	\$2,468	\$38,201

Major Event Declaration

Pacific Power is requesting designation of this event and its consequences to be classified as a "Major Event" for exclusion from network performance reporting with the IEEE 1366-2003/2012. This major event exceeded the company's 2018 Washington threshold of 1,488,256 customer minutes lost (10.98 state SAIDI minutes) in a 24-hour period.

Event Detail



SAIDI, SAIFI, CAIDI by Reliability Reporting Region

Please see the attached system-generated reports.