



**2017 Qualifying Event Report**

December 29, 2017 Event

Filed on March 23, 2018

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## Event Description

### Event Date and Time

Start: 12/29/2017, 14:00

End: 1/06/2018, 14:45

### Event Type

Wind, Snow, and Ice

### Service Areas Significantly Affected

Whatcom and North King Counties

### Number of Customers Affected

System wide, approximately 89,313 customers were without power during the course of this event.

### Summary of System Impacts

Total Number of Outages for the Event	250
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Transmission Lines Affected	3
Substations Offline	0

### Mobilization Summary

#### Operating Bases Placed In Emergency Status

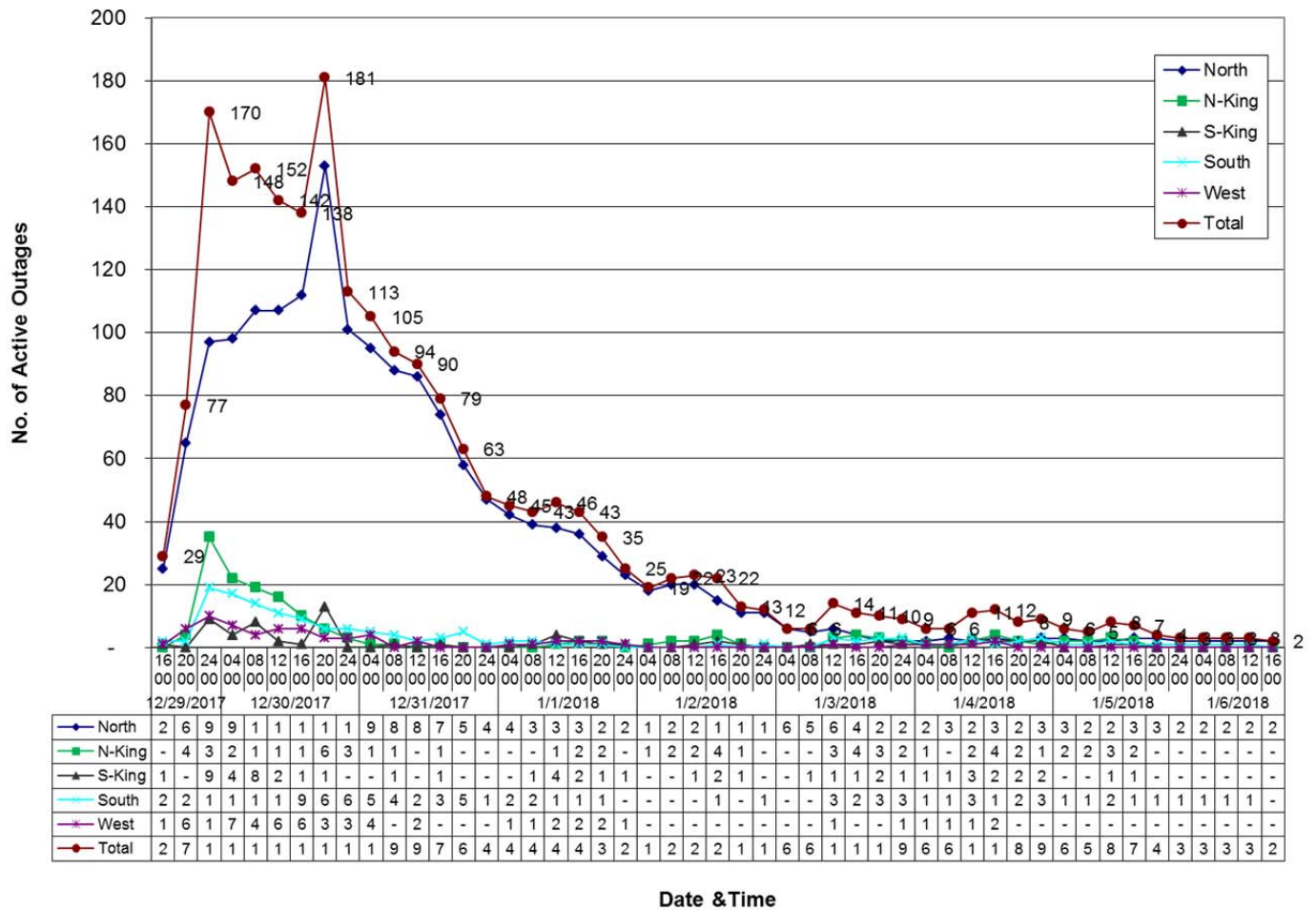
Base	Date Opened	Time Opened	Date Closed	Time Closed
Whatcom/Skagit/Island	12/29/2017	16:00	1/3/2018	12:00
North King	12/29/2017	22:30	12/30/2017	19:15
South King	N/A	N/A	N/A	N/A
Pierce	N/A	N/A	N/A	N/A
Thurston	N/A	N/A	N/A	N/A
Kitsap	N/A	N/A	N/A	N/A
Vashon	N/A	N/A	N/A	N/A
Kittitas	N/A	N/A	N/A	N/A

#### Emergency Coordination Center (ECC)

	Date Opened	Time Opened	Date Closed	Time Closed
ECC	12/29/2017	23:00	12/30/2017	20:30

### Active Outage Event Chart

No. of Active Outages - Dec. 29, 2017, 14:00 to Jan. 6, 2018 14:25



## Major Event Day – Qualification

### IEEE<sup>1</sup> Standard 1366

IEEE Standard 1366 was established to present a set of terms and definitions which can be used to foster uniformity in the development of electric system service reliability indices, to identify factors which affect the indices, and to aid in consistent reporting practices among utilities. Also, it provides guidance for new personnel in the reliability area and tools for internal as well as external comparisons. The Major Event Day definition was created as part of IEEE Standard 1366 to allow for consistent calculation of reliability metrics between utilities and enable more valid comparisons with other utility reliability metrics.

#### IEEE Major Event Day Calculation (2.5 BETA METHOD)

1. A threshold on daily SAIDI<sup>2</sup> is computed once a year, following year end
2. Assemble the 5 most recent years of historical values of SAIDI/day
3. Discard any days in the data set that has a SAIDI/day of zero
4. Find the natural logarithm of each value in the data set
5. Compute the average (Alpha) and the standard deviation (Beta) of the natural logarithms computed in step 4
6. Compute the threshold  $T_{MED}$  where  $T_{MED} = \exp(\text{Alpha} + 2.5 * \text{Beta})$
7. Any day in the next year with SAIDI >  $T_{MED}$  is a major event day

**Puget Sound Energy's IEEE Major Event Threshold ( $T_{MED}$ ) for 2017: 6.72 Minutes**

## Qualifying Events - 2017

### Current Event – Calculation Detail

Event Date, Time Range	Total Customer Minutes	Average Customer Count	Event SAIDI (Customer Minutes /Customer Count)
12/29/2017, 14:00 to 1/6/2018, 14:45	28,188,865	1,141,361	24.7

### Daily SAIDI Detail YTD

#### First Day that Daily SAIDI Exceeded PSE's TMED of 6.72 Minutes by Qualifying Event

Date	Daily SAIDI (from midnight to midnight)	O&M <sup>3</sup> Costs– Deferrable Accumulation
2/5/2017	20.7	\$8,000,000
4/7/2017	13.1	\$0
5/4/2017	37.9	\$0
5/23/2017	7.1	\$0
10/18/2017	21.0	\$0
11/13/2017	64.3	\$0
12/29/2017	28.9	\$0

<sup>1</sup> IEEE: Institute of Electrical and Electronics Engineers

<sup>2</sup> SAIDI: System Average Interruption Duration Index

<sup>3</sup> O&M: Operations and Maintenance

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**Event Restoration – YTD Cost Summary**
**2017 Restoration Costs Detail by Qualifying Event**

Event Date	Qualified Events Deferred Account	Capital Costs	O&M Costs Not Deferrable	O&M Costs Deferrable Accumulation	Total O&M Costs	Total
2/4/2017	\$8,049,709(r)	\$ 634,724(r)	\$0	\$8,000,000	\$16,049,709(r)	\$16,684,433(r)
4/7/2017	\$ 640,453(r)	\$ 68,119	\$0	\$0	\$ 640,453(r)	\$ 708,572(r)
5/4/2017	\$3,313,844	\$ 495,135	\$0	\$0	\$ 3,313,844	\$ 3,808,979
5/23/2017	\$ 439,248	\$ 27,829	\$0	\$0	\$ 439,248	\$ 467,077
10/18/2017	\$2,167,368(r)	\$ 376,893(r)	\$0	\$0	\$ 2,167,368(r)	\$ 2,544,261(r)
11/13/2017	\$5,790,456(r)	\$ 325,087(r)	\$0	\$0	\$ 5,790,456(r)	\$ 6,115,543(r)
12/29/2017	\$4,760,069	\$ 2,824,242	\$0	\$0	\$ 4,760,069	\$ 7,584,311

(r) = Revised

**2017 YTD Storm Restoration Costs Detail**

Qualifying Events Deferred Account	Capital	O&M - Not Deferrable	O&M - Deferrable Accumulation	Total O&M	Total
\$25,161,147	\$4,752,029	\$0	\$8,000,000	\$33,161,147	\$37,913,176

**Detail Documents**

**Restoration Costs Detail – Current Event**

**Detailed List of Distribution Circuits with Outages**

**Terms, Codes and Definitions Used on Detail Reports**

**Restoration Costs Detail – Current Event**

December 29, 2017 Qualifying Event Restoration Costs						
	Qualifying Events Deferred Account	Capital	O&M - Not Deferrable	O&M - Deferrable Accumulation	Total O&M	Total
Labor						
ST	\$ -	\$ 28	\$ -	\$ 13,260	\$ 13,260	\$ 13,288
OT	\$ -	\$ -	\$ -	\$ 370,134	\$ 370,134	\$ 370,134
Total Labor	\$ -	\$ 28	\$ -	\$ 383,395	\$ 383,395	\$ 383,423
Labor OH	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials	\$ -	\$ 203,449	\$ -	\$ 471,075	\$ 471,075	\$ 674,524
Contractors	\$ -	\$2,030,548	\$ -	\$ 3,626,617	\$ 3,626,617	\$5,657,165
Other Direct Charges	\$ -	\$ 8,800	\$ -	\$ 58,467	\$ 58,467	\$ 67,267
Fleet	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Assessments	\$ -	\$ 581,417	\$ -	\$ 220,514	\$ 220,514	\$ 801,931
Deferred Expenses	\$ 4,760,069	\$ -	\$ -	\$ (4,760,069)	\$ (4,760,069)	\$ -
	\$ 4,760,069	\$2,824,242	\$ -	\$ -	\$ -	\$7,584,310



### Detailed List of Outages – 12/29/2017, First T<sub>MED</sub>-Exceeding Day

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00421053-1	12/29/2017	1:18:30 AM	SCH-13	EAA	TV	OCO	33	16,400
P00421054-1	12/29/2017	1:49:10 AM	FNW-17	ECD	UN	OCO	1,370	89,131
P00421069-1	12/29/2017	4:35:32 AM	SLA-17	EAA	UN	OFU	61	3,368
P00421073-1	12/29/2017	5:37:42 AM	KIT-26	EBH	EF	OTF	1	231
P00421075-1	12/29/2017	5:56:37 AM	FLD-12	EAD	TV	OCO	85	45,644
P00421077-1	12/29/2017	6:16:43 AM	CWD-22	EBD	EF	UPC	52	16,533
P00421078-1	12/29/2017	6:23:30 AM	LYN-14	EAA	TV	OCO	37	9,220
P00421082-1	12/29/2017	6:35:09 AM	HLC-23	EAD	EF	UTR	24	8,811
P00421091-1	12/29/2017	8:10:20 AM	SCH-13	EAA	EF	OCN	1	77
P00421089-1	12/29/2017	8:49:57 AM	NOR-26	EBD	SO	OCE	41	640
P00421100-1	12/29/2017	9:03:57 AM	EDG-16	ECA	AC	OHR	889	51,458
P00420920-1	12/29/2017	9:06:17 AM	HEM-15	ECA	SO	UTC	33	10,677
P00420911-1	12/29/2017	9:24:11 AM	SKY-23	EBD	SO	UEL	1	53
P00422251-3	12/29/2017	9:44:00 AM	RIV-13	EAC	EF	UPC	32	96,736
P00420638-1	12/29/2017	10:07:46 AM	KAP-13	ECA	SO	UPC	1	188
P00421129-1	12/29/2017	10:27:39 AM	SCH-16	EAA	TV	OCO	65	351,997
P00421133-2	12/29/2017	10:36:00 AM	UHL-23	EBD	EF	USV	1	131
P00421124-1	12/29/2017	11:10:37 AM	HYA-13	EBF	UN	OCE	1	76
P00421157-1	12/29/2017	11:45:08 AM	ROC-25	ECC	EF	OTF	9	783
P00421161-1	12/29/2017	12:02:03 PM	SAH-15	EBD	EF	USV	1	190
P00421163-1	12/29/2017	12:10:10 PM	SCH-15	EAA	TV	OCO	47	1,715
P00421164-1	12/29/2017	12:20:24 PM	SCH-13	EAA	EF	OSV	-	306
P00421172-1	12/29/2017	12:32:00 PM	TLN-0159	EBF	UN	OCR	2,125	19,301
P00421174-1	12/29/2017	12:36:18 PM	SCH-13	EAA	TV	OCO	277	784,953
P00419638-1	12/29/2017	12:39:11 PM	FRA-13	ECD	SO	OFU	32	9,135
P00422937-1	12/29/2017	12:42:53 PM	BHS-11	EAA	TV	OCO	54	182,279
P00421221-1	12/29/2017	12:46:29 PM	SCH-13	EAA	TV	OCO	7	82,794
P00423537-1	12/29/2017	12:47:04 PM	SCH-13	EAA	EF	OPO	8	50,582
P00421185-1	12/29/2017	12:56:40 PM	WOB-23	EAA	UN	OTF	1	235
P00421195-1	12/29/2017	1:18:54 PM	CAM-23	EBJ	SO	UNK	8	448
P00421108-1	12/29/2017	1:20:54 PM	KNT-37	EBJ	SO	USV	2	189
P00423662-1	12/29/2017	1:21:45 PM	SCH-12	EAA	EF	OPO	-	152,718
P00421201-1	12/29/2017	1:25:06 PM	SHD-18	EBI	SO	UPC	3	300
P00421325-1	12/29/2017	1:25:31 PM	LYN-17	EAA	EF	OPO	40	230,682
P00421202-1	12/29/2017	1:29:19 PM	LYN-17	EAA	OD	OCO	1,112	831,825
P00421206-1	12/29/2017	1:29:44 PM	LYN-26	EAA	TV	OPO	128	659,678
P00423325-1	12/29/2017	1:29:46 PM	LYN-26	EAA	EF	OPO	62	465,941
P00423331-1	12/29/2017	1:29:49 PM	LYN-26	EAA	EF	OPO	24	112,650
P00421296-1	12/29/2017	1:31:46 PM	BHS-13	EAA	EF	OPO	69	219,315

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00423464-1	12/29/2017	1:31:47 PM	LYN-26	EAA	EF	OCO	22	125,949
P00421264-1	12/29/2017	1:37:00 PM	SCH-13	EAA	EF	OPO	2,009	3,596,132
P00422869-1	12/29/2017	1:40:01 PM	SCH-16	EAA	UN	OPO	54	235,142
P00423634-1	12/29/2017	1:42:34 PM	SCH-13	EAA			1	5,863
P00421267-1	12/29/2017	1:43:59 PM	LYN-14	EAA	TV	OCO	37	36,898
P00422688-1	12/29/2017	1:44:21 PM	LYN-17	EAA	EF	OFU	114	536,623
P00422740-1	12/29/2017	1:47:32 PM	KEN-12	EAA	TV	OCO	67	311,634
P00423304-1	12/29/2017	1:47:53 PM	SCH-13	EAA	EF	OCO	1	4,672
P00422724-1	12/29/2017	1:51:05 PM	LYN-17	EAA	TV	OPO	19	88,070
P00421335-1	12/29/2017	1:53:17 PM	BHS-13	EAA	EF	OPO	92	129,904
P00421626-1	12/29/2017	2:10:14 PM	LYN-26	EAA	TV	OPO	571	714,788
P00421308-1	12/29/2017	2:10:27 PM	ZEN-25	EBJ	TV	OCO	1	109
P00421309-1	12/29/2017	2:17:02 PM	GBK-13	EAD	EF	OCN	1	422
P00421310-1	12/29/2017	2:18:19 PM	MCK-15	EAA	OD	OCO	3	7,460
P00421312-1	12/29/2017	2:23:15 PM	LYN-26	EAA	TV	OCO	28	53,109
P00421316-1	12/29/2017	2:36:36 PM	STA-13	EBJ	EF	USV	1	230
P00421318-1	12/29/2017	2:37:56 PM	ROC-16	ECC	TV	OFU	9	1,054
P00421322-1	12/29/2017	2:43:20 PM	SWD-13	ECE	UN	OFU	3	234
P00421378-1	12/29/2017	2:48:11 PM	ROC-16	ECC	TV	OFU	1	107
P00422745-1	12/29/2017	2:53:00 PM	BHS-11	EAA	ND	OCO	76	128,418
P00423574-1	12/29/2017	2:53:02 PM	BHS-11	EAA	TV	OCO	39	121,441
P00421197-1	12/29/2017	2:55:18 PM	SCH-13	EAA	EF	OCO	-	46,819
P00421329-1	12/29/2017	2:57:09 PM	BHS-11	EAA	UN	OCO	36	32,424
P00423478-1	12/29/2017	2:59:00 PM	SCH-13	EAA	EF	OFU	2	7,772
P00421344-1	12/29/2017	3:20:02 PM	LYN-14	EAA	TV	OCO	14	50,606
P00421348-1	12/29/2017	3:23:59 PM	VIS-26	EAA	TV	OCO	3	9,260
P00421350-1	12/29/2017	3:27:32 PM	BCH-16	EAA	TV	OCO	43	67,198
P00421355-1	12/29/2017	3:30:38 PM	LYN-14	EAA	EF	OCO	64	173,895
P00421356-1	12/29/2017	3:32:00 PM	LYN-14	EAA	EF	OCO	37	40,046
P00421368-1	12/29/2017	3:39:01 PM	HAN-13	EAA	TV	OFU	34	18,246
P00421370-1	12/29/2017	3:39:10 PM	LYN-14	EAA	UN	OCO	11	48,109
P00422828-1	12/29/2017	3:39:57 PM	LYN-24	EAA	TV	OCO	2	9,439
P00421448-1	12/29/2017	3:45:09 PM	SCH-15	EAA	EF	OSV	1	5,720
P00421381-1	12/29/2017	3:45:38 PM	SUM-21	EAC	EF	OTR	2	1,253
P00421383-1	12/29/2017	3:47:28 PM	LYN-13	EAA	OD	OSV	1	2,857
P00422596-1	12/29/2017	3:51:32 PM	LYN-23	EAA	TV	OSV	5	7,767
P00421387-1	12/29/2017	3:53:50 PM	VIS-23	EAA	TV	OCO	5	13,273
P00421397-1	12/29/2017	3:56:04 PM	BCH-16	EAA	TV	OCO	589	676,216
P00423448-1	12/29/2017	3:57:38 PM	LYN-26	EAA	EF	OPO	9	47,308
P00421400-1	12/29/2017	3:59:33 PM	VIS-26	EAA	EF	OCO	52	98,570
P00422983-1	12/29/2017	4:01:59 PM	VIS-26	EAA	EF	UTC	-	15,413
P00421402-1	12/29/2017	4:02:46 PM	VIS-26	EAA	EF	OCO	136	200,330

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00421404-1	12/29/2017	4:04:58 PM	LYN-14	EAA	EF	OCO	9	24,828
P00422192-1	12/29/2017	4:06:32 PM	BHS-14	EAA	EF	OSW	464	208,833
P00421407-1	12/29/2017	4:06:59 PM	PIP-22	EBI	EF	OTF	2	181
P00421410-1	12/29/2017	4:08:32 PM	CUS-15	EAA	UN	OCO	13	39,425
P00421424-1	12/29/2017	4:12:28 PM	VIS-22	EAA	TV	OCO	76	54,776
P00422736-1	12/29/2017	4:17:17 PM	BHS-11	EAA	EF	OCO	65	289,981
P00423559-1	12/29/2017	4:17:17 PM	BHS-11	EAA	TV	OCO	39	182,872
P00421433-1	12/29/2017	4:19:01 PM	HAN-13	EAA	TV	OSV	4	2,557
P00421437-1	12/29/2017	4:21:54 PM	LYN-14	EAA	TV	OSV	1	1,465
P00421439-1	12/29/2017	4:23:08 PM	CUS-15	EAA	TV	OCO	-	5,229
P00421441-1	12/29/2017	4:26:15 PM	LYN-14	EAA	TV	OTF	-	2,337
P00421442-1	12/29/2017	4:27:52 PM	LYN-14	EAA	EF	OCO	4	19,371
P00421445-1	12/29/2017	4:30:53 PM	BHS-13	EAA	EF	OCO	884	475,946
P00421450-1	12/29/2017	4:34:41 PM	BCH-15	EAA	TV	OTF	3	2,416
P00421452-1	12/29/2017	4:35:03 PM	BCH-12	EAA	EF	USV	1	1,604
P00421457-1	12/29/2017	4:37:23 PM	VIS-26	EAA	TV	OCO	978	416,386
P00422151-1	12/29/2017	4:41:19 PM	VIS-26	EAA	EF	OPI	-	6,482
P00421465-1	12/29/2017	4:43:18 PM	VIS-22	EAA	TV	OCO	1,861	1,010,528
P00421529-1	12/29/2017	4:53:00 PM	TLN-0264	EAA	TV	OCO	-	48,167
P00421472-1	12/29/2017	4:55:36 PM	PTR-14	EAA	OD	OTF	3	7,895
P00421540-1	12/29/2017	4:57:35 PM	BHS-12	EAA	TV	OCR	629	307,182
P00421500-1	12/29/2017	5:02:05 PM	LYN-26	EAA	TV	OCO	4	17,106
P00421605-1	12/29/2017	5:02:48 PM	CUS-16	EAA	UN	OCO	415	194,188
P00421132-2	12/29/2017	5:07:31 PM	CPV-12	EAD	EF	USE	2	203
P00421530-1	12/29/2017	5:13:08 PM	HAN-13	EAA	UN	OCO	128	106,615
P00421531-1	12/29/2017	5:13:35 PM	LYN-26	EAA	TV	OCO	65	255,754
P00421858-1	12/29/2017	5:14:51 PM	LYN-24	EAA	EF	OCO	31	103,261
P00421535-1	12/29/2017	5:15:47 PM	LYN-26	EAA	TV	OCO	26	46,165
P00421539-1	12/29/2017	5:20:07 PM	BLA-13	EAA	OD	OFU	94	85,529
P00421547-1	12/29/2017	5:35:54 PM	VIS-25	EAA	TV	OTF	3	1,350
P00421551-1	12/29/2017	5:38:52 PM	VIS-25	EAA	TV	UTC	10	4,491
P00421563-1	12/29/2017	5:44:29 PM	SEM-13	EAA	TV	SCB	138	7,588
P00421561-1	12/29/2017	5:44:38 PM	FWD-17	EBJ	EF	OTF	5	220
P00421567-1	12/29/2017	5:49:42 PM	HAN-13	EAA	TV	OCO	7	20,369
P00421576-1	12/29/2017	5:54:30 PM	HAN-12	EAA	TV	OCO	3	4,527
P00421585-1	12/29/2017	6:08:38 PM	CHI-16	ECD	TV	OCR	195	40,287
P00421586-1	12/29/2017	6:08:54 PM	HAN-13	EAA	TV	OCO	6	11,150
P00421588-1	12/29/2017	6:09:19 PM	WLS-16	EAC	TV	OCO	28	1,125
P00421542-1	12/29/2017	6:09:22 PM	LYN-24	EAA	TV	OCO	33	158,271
P00421589-1	12/29/2017	6:10:01 PM	MIL-23	ECE	TV	OTF	2	17
P00421606-1	12/29/2017	6:10:01 PM	MIL-23	ECE	TV	OPO	8	4,620
P00422318-1	12/29/2017	6:17:51 PM	CUS-16	EAA	TV	OCO	84	115,778

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00421615-1	12/29/2017	6:28:06 PM	SUN-13	ECA	EF	USV	4	3,816
P00421629-1	12/29/2017	6:44:25 PM	SLA-17	EAA	TV	OSV	1	3,067
P00421633-1	12/29/2017	6:51:54 PM	CUS-13	EAA	TV	OCO	482	117,851
P00421641-1	12/29/2017	7:03:00 PM	HIG-15	EBE	TV	OCO	332	31,879
P00421647-1	12/29/2017	7:09:00 PM	PMA-12	ECE	TV	OCO	19	12,068
P00421649-1	12/29/2017	7:11:38 PM	NBE-12	EBF	TV	OCO	38	16,039
P00421650-1	12/29/2017	7:13:20 PM	LYN-24	EAA	TV	OCO	19	57,205
P00421651-1	12/29/2017	7:13:34 PM	NBE-12	EBF	TV	OTF	5	37
P00421652-1	12/29/2017	7:14:07 PM	CHR-22	ECE	UN	OTF	1	297
P00421654-1	12/29/2017	7:17:17 PM	MIL-23	ECE	TV	OCO	33	11,690
P00421664-1	12/29/2017	7:23:40 PM	MIL-22	ECE	TV	OCO	50	24,929
P00421667-1	12/29/2017	7:27:22 PM	TIL-23	ECA	TV	OFU	7	750
P00421672-1	12/29/2017	7:31:56 PM	CWD-23	EBD	EF	USV	1	974
P00421694-1	12/29/2017	7:49:28 PM	NBE-13	EBF	TV	OCO	55	16,030
P00421702-1	12/29/2017	7:59:23 PM	HAN-13	EAA	TV	OSV	3	3,061
P00421854-1	12/29/2017	8:00:00 PM	TLN-0257	EBD	TV	OCO	19,071	191,664
P00422924-1	12/29/2017	8:05:35 PM	BLA-13	EAA	ND	OCO	26	98,976
P00421857-1	12/29/2017	8:07:04 PM	HKX-16	EAC	TV	OTR	3	3,182
P00421885-1	12/29/2017	8:16:28 PM	PLA-21	EBD	TV	OCO	830	679,977
P00421890-1	12/29/2017	8:20:53 PM	AIR-22	ECC	TV	OTF	2	303
P00421902-1	12/29/2017	8:26:16 PM	PAN-15	EBJ	TV	OSV	1	390
P00421917-1	12/29/2017	8:29:57 PM	WAY-13	EBD	TV	OCO	8	4,405
P00422297-1	12/29/2017	8:30:56 PM	ELD-27	ECC	TV	OCO	5	5,937
P00421925-1	12/29/2017	8:31:36 PM	CHA-13	ECC	TV	OPO	16	3,269
P00421934-1	12/29/2017	8:33:37 PM	PIN-01	EBD	TV	OCO	-	1,046,519
P00421940-1	12/29/2017	8:34:17 PM	ROC-26	ECC	TV	OCO	37	3,090
P00421948-1	12/29/2017	8:34:48 PM	LOL-21	ECD	TV	OCO	59	37,444
P00422051-1	12/29/2017	8:36:38 PM	PIN-26	EBD	TV	OCO	635	627,740
P00421973-1	12/29/2017	8:37:34 PM	ORT-26	ECA	TV	OCR	234	76,788
P00423455-1	12/29/2017	8:41:57 PM	LYN-26	EAA	EF	OCO	1	4,205
P00421996-1	12/29/2017	8:42:17 PM	LYN-14	EAA	EF	OPO	358	353,172
P00421998-1	12/29/2017	8:43:26 PM	DGR-15	ECA	TV	OFU	36	13,424
P00421999-1	12/29/2017	8:43:34 PM	SHD-16	EBI	EF	OCO	82	43,815
P00422000-1	12/29/2017	8:43:41 PM	KNM-26	EBD	TV	USV	1	576
P00422002-1	12/29/2017	8:44:36 PM	LTA-18	ECA	TV	OFU	5	2,226
P00422003-1	12/29/2017	8:45:29 PM	SHA-15	ECA	TV	OCO	6	9,288
P00422004-1	12/29/2017	8:45:49 PM	KAP-15	ECA	TV	OCO	1,127	249,532
P00422006-1	12/29/2017	8:46:07 PM	GRI-16	ECC	TV	OCO	15	4,969
P00422035-1	12/29/2017	8:48:04 PM	TOL-17	EBD	TV	OCO	20	14,474
P00422036-1	12/29/2017	8:48:10 PM	BLA-13	EAA	TV	OCO	7	16,345
P00422078-1	12/29/2017	8:49:40 PM	ORT-23	ECA	TV	OCO	138	63,899
P00422619-1	12/29/2017	8:50:08 PM	ALG-15	EAA	TV	OCO	39	22,431

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00422765-1	12/29/2017	8:51:00 PM	DUV-15	EBD	TV	OCO	123	125,332
P00422058-1	12/29/2017	8:51:43 PM	PET-15	EAC	OD	OJU	24	22,041
P00422096-1	12/29/2017	8:52:21 PM	LWS-13	EBJ	TV	OCO	2,595	157,906
P00422090-1	12/29/2017	8:53:29 PM	FCR-12	EBI	TV	OCO	26	10,699
P00422091-1	12/29/2017	8:53:50 PM	BLU-17	ECC	TV	OTF	1	186
P00422094-1	12/29/2017	8:53:53 PM	LEA-16	EBJ	TV	OCO	33	8,636
P00422095-1	12/29/2017	8:53:58 PM	SHD-18	EBI	TV	OCO	2	1,249
P00422098-1	12/29/2017	8:54:50 PM	NBE-12	EBF	TV	OCO	4	3,375
P00422106-1	12/29/2017	8:57:44 PM	WOB-23	EAA	TV	OCO	374	37,275
P00422833-1	12/29/2017	8:58:23 PM	WOB-23	EAA	EF	OCO	-	261,832
P00422116-1	12/29/2017	8:59:07 PM	MIR-17	EBF	TV	OCO	512	87,068
P00422110-1	12/29/2017	8:59:51 PM	EDG-16	ECA	TV	OCO	29	11,208
P00422112-1	12/29/2017	9:00:18 PM	HOB-17	EBI	TV	OCO	55	43,537
P00422117-1	12/29/2017	9:00:58 PM	ALG-15	EAA	TV	OCO	173	51,369
P00422546-1	12/29/2017	9:03:09 PM	SNQ-17	EBF	TV	OCO	11	5,029
P00422136-1	12/29/2017	9:03:12 PM	KEN-12	EAA	TV	OCO	510	127,313
P00422140-1	12/29/2017	9:03:17 PM	EGT-15	EBE	TV	OCO	269	50,316
P00422134-1	12/29/2017	9:04:41 PM	ENU-17	EBI	TV	OCO	2	219
P00422137-1	12/29/2017	9:04:46 PM	MSI-24	EBF	TV	OCO	181	68,367
P00422153-1	12/29/2017	9:05:07 PM	COT-16	EBD	TV	OCO	1,146	562,437
P00422710-1	12/29/2017	9:05:14 PM	KEN-12	EAA	ND	OHR	1,268	1,047,853
P00422782-1	12/29/2017	9:05:59 PM	KEN-12	EAA	TV	OCO	115	299,661
P00422150-1	12/29/2017	9:06:28 PM	SNQ-17	EBF	TV	OCO	-	95
P00422156-1	12/29/2017	9:07:30 PM	GRV-16	ECA	EF	OIN	25	30,100
P00422159-1	12/29/2017	9:09:00 PM	BIG-15	EAC	TV	OCO	294	319,977
P00422676-1	12/29/2017	9:09:23 PM	KEN-12	EAA	TV	OCR	18	38,017
P00422163-1	12/29/2017	9:09:46 PM	BIG-15	EAC	TV	OCO	271	180,573
P00422165-1	12/29/2017	9:09:48 PM	RIT-16	EAC	TV	OCO	30	27,006
P00422173-1	12/29/2017	9:12:33 PM	13-Dec	ECC	TV	OPO	817	80,677
P00422174-1	12/29/2017	9:14:19 PM	NBE-12	EBF	TV	OSV	5	395
P00422177-1	12/29/2017	9:14:53 PM	KIN-23	ECE	TV	OCO	160	11,427
P00422176-1	12/29/2017	9:15:55 PM	MOT-14	ECC	TV	OCO	314	173,601
P00422178-1	12/29/2017	9:16:20 PM	WIS-13	EBF	TV	OFU	10	7,240
P00422179-1	12/29/2017	9:16:44 PM	MVW-13	EBJ	EF	UPT	11	10,871
P00422857-1	12/29/2017	9:18:36 PM	BKB-14	EAC	TV	OCO	13	17,786
P00422190-1	12/29/2017	9:23:50 PM	GWR-13	EBI	TV	OCO	82	14,077
P00422207-1	12/29/2017	9:27:52 PM	STW-13	ECA	TV	OHR	350	140,181
P00422222-1	12/29/2017	9:30:00 PM	TLN-0003	EAA	TV	OCO	881	1,737,148
P00422985-1	12/29/2017	9:33:25 PM	GLA-12	EAA	TV	OCO	191	378,356
P00422233-1	12/29/2017	9:33:46 PM	HAP-16	EAA	TV	OTR	1	2,187
P00422236-1	12/29/2017	9:33:53 PM	LLT-16	EBD	UN	OPI	9	11,915
P00422239-1	12/29/2017	9:36:17 PM	COT-13	EBD	TV	OTF	2	751

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00422241-1	12/29/2017	9:37:15 PM	BLA-13	EAA	TV	OCO	2	4,619
P00422242-1	12/29/2017	9:37:17 PM	RIT-16	EAC	TV		1	1,122
P00422243-1	12/29/2017	9:38:00 PM	HAM-15	EAC	TV	OCO	13	9,626
P00422251-1	12/29/2017	9:44:16 PM	RIV-13	EAC	EF	UPC	32	73,706
P00422252-1	12/29/2017	9:44:17 PM	LUH-14	ECC	TV	OCO	1	1,007
P00422262-1	12/29/2017	9:48:22 PM	FRA-12	ECD	TV	OCO	8	5,516
P00422263-1	12/29/2017	9:48:41 PM	BRS-24	EAC	TV	OCO	8	5,513
P00422265-1	12/29/2017	9:48:51 PM	FLD-12	EAD	TV	OCO	62	11,584
P00422267-1	12/29/2017	9:53:23 PM	BRS-24	EAC	TV	OCO	734	856,321
P00422292-1	12/29/2017	10:01:59 PM	FAL-13	EBF	TV	OCO	13	6,962
P00422302-1	12/29/2017	10:05:05 PM	BRS-24	EAC	TV	OCO	1	2,014
P00421940-2	12/29/2017	10:18:35 PM	ROC-26	ECC	TV	OCO	37	21,791
P00422545-1	12/29/2017	10:22:00 PM	TLN-0257	EBD	TV	OCO	-	87,469
P00422531-1	12/29/2017	10:22:00 PM	TLN-0257	EBD	TV	OCO	5,356	62,397
P00422685-1	12/29/2017	10:33:41 PM	SAH-15	EBD	TV	OCO	1,377	225,805
P00422686-1	12/29/2017	10:33:41 PM	SAH-16	EBD	TV	OCO	1,583	259,902
P00422684-1	12/29/2017	10:33:53 PM	SAH-13	EBD	TV	OCO	1,649	269,364
P00422687-1	12/29/2017	10:33:58 PM	SAH-17	EBD	TV	OCO	747	122,919
P00422623-1	12/29/2017	10:36:07 PM	PLA-23	EBD	TV	OCO	1,621	477,681
P00422621-1	12/29/2017	10:36:17 PM	PLA-22	EBD	TV	OCO	1,526	383,026
P00422622-1	12/29/2017	10:36:39 PM	PLA-24	EBD	TV	OCO	2,193	496,094
P00422549-1	12/29/2017	10:37:51 PM	TOL-15	EBD	TV	OCO	8	5,273
P00422038-1	12/29/2017	10:41:57 PM	HAN-13	EAA	TV	OCO	-	25,035
P00422551-1	12/29/2017	10:43:02 PM	SNQ-17	EBF	TV	OSV	1	496
P00422554-1	12/29/2017	10:46:34 PM	HAN-13	EAA	TV	OSV	1	3,579
P00422557-1	12/29/2017	10:48:21 PM	VAS-12	EBL	TV	OCO	234	206,049
P00422572-1	12/29/2017	10:56:38 PM	ROL-16	EBJ	TV	OCO	1,999	418,369
P00422583-1	12/29/2017	11:05:17 PM	KLA-15	EBD	TV	OCO	265	113,319
P00422665-1	12/29/2017	11:05:53 PM	PIN-17	EBD	TV	SCB	386	63,632
P00422671-1	12/29/2017	11:05:54 PM	PIN-27	EBD	TV	OCO	1,141	196,956
P00422668-1	12/29/2017	11:06:25 PM	PIN-25	EBD	TV	OCO	2,090	346,418
P00422667-1	12/29/2017	11:06:33 PM	PIN-23	EBD	TV	SCB	1,820	302,515
P00422669-1	12/29/2017	11:07:12 PM	PIN-26	EBD	TV	OCO	1,473	250,606
P00422590-1	12/29/2017	11:11:37 PM	CLV-16	EAD	TV	OTF	1	478
P00422593-1	12/29/2017	11:14:06 PM	BHS-14	EAA	TV	OSV	1	4,243
P00422700-1	12/29/2017	11:19:56 PM	VAS-12	EBL	TV	OFU	112	11,656
P00421993-1	12/29/2017	11:20:56 PM	YEL-25	ECC	TV	OCO	2	2,135
P00422599-1	12/29/2017	11:24:58 PM	SBE-26	EBE	TV	OCO	70	31,978
P00422154-1	12/29/2017	11:40:05 PM	MIL-16	ECE	TV	OCO	54	806
P00422627-1	12/29/2017	11:46:51 PM	FAL-16	EBF	TV	OCO	2	2,457
P00422192-1	12/29/2017	11:49:23 PM	BHS-14	EAA	EF	OSW	284	550,116
P00422835-1	12/29/2017	11:49:23 PM	BHS-14	EAA	TV	OCO	86	213,805

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NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST.OUT	CUST.MIN
P00422929-1	12/29/2017	11:52:47 PM	BHS-14	EAA	TV	OCO	17	69,474
P00422634-1	12/29/2017	11:53:12 PM	VIS-26	EAA	TV	OCO	412	288,243

### Terms, Codes and Definitions Used on Detail Reports

<b>Notification (NUMBER)</b>	A number assigned by SAP, identifying the outage record	
<b>Date (DATE)</b>	The date of the outage	
<b>Time (TIME)</b>	The time of the outage	
<b>Circuit (CKT)</b>	The circuit identifier for the affected circuit	
<b>Area (MPG)</b>	<b>Maintenance Planner Group</b> A code representing the energy, region and service center	
	EAA – Bellingham	EBJ – South King
	EAC – Skagit	EBL – Vashon
	EAD – Whidbey	ECA – Puyallup
	EBD – Redmond	ECC – Olympia
	EBE – Factoria	ECD – Port Orchard
	EBF – Snoqualmie	ECE – Poulsbo
	EBI – Enumclaw	
<b>Cause (CAZ)</b>	<b>Cause of Outage</b>	
	AO – Accident Other	EF – Equipment Failure
	BA – Bird or Animal	EO – Electrical Overload
	CP – Car Pole	FI – Faulty Installation
	CR – Customer Request	TF – Tree Off Right-of-Way
	DU – Dig-up Underground	TO – Tree On Right-of-Way
	TV – Trees/Vegetation	SO – Scheduled Outage
	UN – Unknown	
<b>Equipment (EQT)</b>	<b>Affected by, or involved in the outage</b>	
	OCN – Connector	OSW – Overhead Switch
	OCO – Overhead Conductor	OTF – Overhead Transformer Fuse
	OCR – Crossarm	OTR – Overhead Transformer
	OFC – Overhead Cut-out	OUP – OH to UG Primary
	OFS – Overhead Fire Signal	OUS – OH to UG Secondary Service
	OFU – Fuse Link/OH Line Fuse	SBF – High-side Bank Fuse
	OGS – Span Guy	SCB – Power Circuit Breaker
	OHR – Overhead Recloser	UOT – Underground Outdoor Term
	OIN – Insulator	UPC – Underground Primary Cable
	OJU- Jump Wire	UPT – Padmount Transformer
	OPI – Overhead Pin Insulator	USV – Underground Service
	OPO – Pole	UTC – Underground Terminal Fuse
	OSV – Overhead Service	UTR – Submersible Transformer
	ORE – Regulator	
<b>CUST OUT (CUST.OUT)</b>	<b>Customer Out</b> , The number of customers without power for any given outage record	
<b>CUST MIN (CUST. MIN)</b>	<b>Customer Minutes</b> , The total number of minutes customers were without power for any given record	



## Media & Communication Coverage



NWS Seattle - NOAA Service Account [nws.seattle@noaa.gov](mailto:nws.seattle@noaa.gov)

Sent: Fri 12/29/2017 8:25 AM

### Wet Today...Windy Later Today and a Wintry Mix in the Cascades

Hello,

This message is intended as an informational briefing for public safety decision makers. We ask that you continue to monitor latest information using the resources listed below. You are welcome to share this message with others in your organization. Please do not respond to this email. **If you need to contact the office, please use the links and information below.** This will be updated regularly leading up to the event as well as on an as-needed basis for significant changes.

**CHANGES SINCE PREVIOUS BRIEFING:** Strong winds later today are now much more likely. The anticipated wintry mix of snow, freezing rain and local sleet in the Cascades will continue into this evening. Rain in the lowlands combined with a higher snow level today, particularly in the Cascades of Pierce and Lewis counties may help drive a few rivers above flood stage tonight into Saturday. Enough near freezing air north of Bellingham near Lynden and Sumas warrants the continued threat of freezing rain.

#### **IMPACTS:**

**Winds:** Potential of downed trees and powerlines with local power outages.

**Cascade Mountains north of Mt Rainier:** Wintry mix of snow, rain, freezing rain and local sleet creating hazardous driving conditions.

**Flood Threat:** Minor flooding possible on a few rivers, local ponding of water on roadways.

#### **SYNOPSIS:**

A Pacific weather system moving onshore late today will produce rain across Western Washington into this evening with the potential of a few rivers rising above flood stage tonight into Saturday. The system's parent low pressure system is expected to track east across the Olympic Peninsula late today. Strong southerly winds will develop to the south of the low along the central coast this afternoon and from the Admiralty Inlet area southward this evening. Southerly winds 30-35 mph sustained with gusts to 50 mph along the central coast, and inland 20-30 mph sustained with gusts to 45 mph.

In the Cascades, snow levels range from near 3000 feet near the Canadian border to 6000 feet around White Pass. Cooler easterly winds through Snoqualmie and Stevens passes will maintain a wintry mix of precipitation through this evening. Once the weather system moves inland tonight, snow levels will fall below all the passes with precipitation easing Saturday.

#### **WATCHES/WARNINGS/ADVISORIES:**

##### **As of 8 AM...**

**Wind Advisory** Central Coast and Admiralty Inlet southward through the Puget Sound area and the Southwest Interior for this afternoon and evening. Wind Advisory also for the Eastern Strait of Juan de Fuca for strong westerly winds in the wake of the low pressure system moving inland.

**Winter Storm Warning** Central and North Cascades through this evening.

**Avalanche Warning** for the Cascades today.

**Winter Weather Advisory** Western Whatcom Co north of Bellingham.

**Flood Watch** for much of Western Washington this afternoon through Saturday.

For the latest forecasts and warning information, monitor the NWS Seattle web site at [www.weather.gov/seattle/](http://www.weather.gov/seattle/), social media, iNWS, NWSChat and other resources.

**WHAT DO WE KNOW NOW:**

**Winds:** Strong southerly winds are expected to rise along the central coast this afternoon - 30-35 mph with gusts to 50 mph, and inland this evening 20-30 mph with gusts to 45 mph. Winds should ease overnight.

**Cascades Wintry Mix:** Fluctuating snow levels and cooler easterly flow through the passes will produce a mix of snow, rain, freezing rain and local sleet into this evening. Snow levels will fall below all the passes overnight.

**Western Whatcom County:** Enough cool near freezing air moving out of the Fraser valley will maintain the threat of freezing rain in locations north of Bellingham such as Lynden and Sumas through this evening.

**Rain:** Rainfall amounts with this weather system along the coast - 1.5 to 3 inches, lowlands inland 0.5 to 1.5 inches, mountains below the snow level - 2 to 4 inches.

**Likelihood of Reaching Flood Stage:** White, Newaukum and Skokomish Rivers.

**WHAT IS MOST LIKELY TO CHANGE:**

The track of the low pressure system moving onshore will drive the specific location of the strong winds. Any shift north or south can adjust the wind directions and speeds.

The variable conditions in the Cascades will produce the mix of snow, rain, freezing rain and local sleet through this evening.

Again, monitor the NWS Seattle web site and social media for the latest forecast information.

**KOMONNEWS.com****Ice storm bends trees, knocks out power to thousands in Whatcom County, Washington**

SUMAS, Wash. -- A relentless freezing rain is now causing issues in parts of Whatcom County on Friday evening. The National Weather Service reports that some tree branches are starting to fall around the Lynden and Sumas area, triggering power outages. Puget Sound Energy more than 20,000 customers without power.

A rare Ice Storm Warning was issued for the inland areas of Whatcom County including Sumas, Lynden and Ferndale until midnight. Another tenth of an inch of ice accumulation is expected in those areas with a storm total approaching a quarter inch.

The National Weather Service warns that if anyone ventures out Friday evening to be aware of ice falling off trees and off buildings. Driving was dangerous.

Despite a very mild storm moving through the region, arctic air continues to be drawn out of the Fraser River Valley into the interior locations of Whatcom County. The warm rains fall into the thin layer of freezing temperatures, making the rain freeze on contact. The problem extends into southern British Columbia along the Fraser Valley where freezing rain has also created issues.