



2009 Qualifying Storm Events

November 16, 2009

Table of Contents

Table of Contents	2
Event Description	3
Date of event	3
Event Type.....	3
Service Areas Affected	3
Number of Customers Affected.....	3
Summary of System Impacts	3
Mobilization Summary	3
Major Event Day – Qualification.....	5
Qualified Events - 2009	5
Current Event – Calculation Detail	5
Cumulative list of events that have qualified	5
Event Restoration – Cost Summary	6
Restoration Cost Detail by Qualifying Event.....	6
YTD Storm Restoration Cost Detail – Through Nov 16, 2009	6
Detail Documents	7
Restoration Cost Detail – Current Event	8
IEEE-1366 - Detailed List of Distribution Circuits with Outages.....	9
Terms, Codes and Definitions Used on Detail Reports.....	15
Media Coverage	17

Event Description

Date of event

November 16, 2009

Event Type

Wind storm.

Service Areas Affected

This weather event affected primarily Whatcom, Skagit, Island, Kitsap and Jefferson Counties.

Number of Customers Affected

Approximately 50,200 customers were without power over the course of this outage event.

Summary of System Impacts

Total Number of Outages	461
Distribution Circuits Totally Out	17
Distribution Circuits Partially Out	444

Transmission Circuits Affected	10
Substations Totally Off-line	3

Mobilization Summary

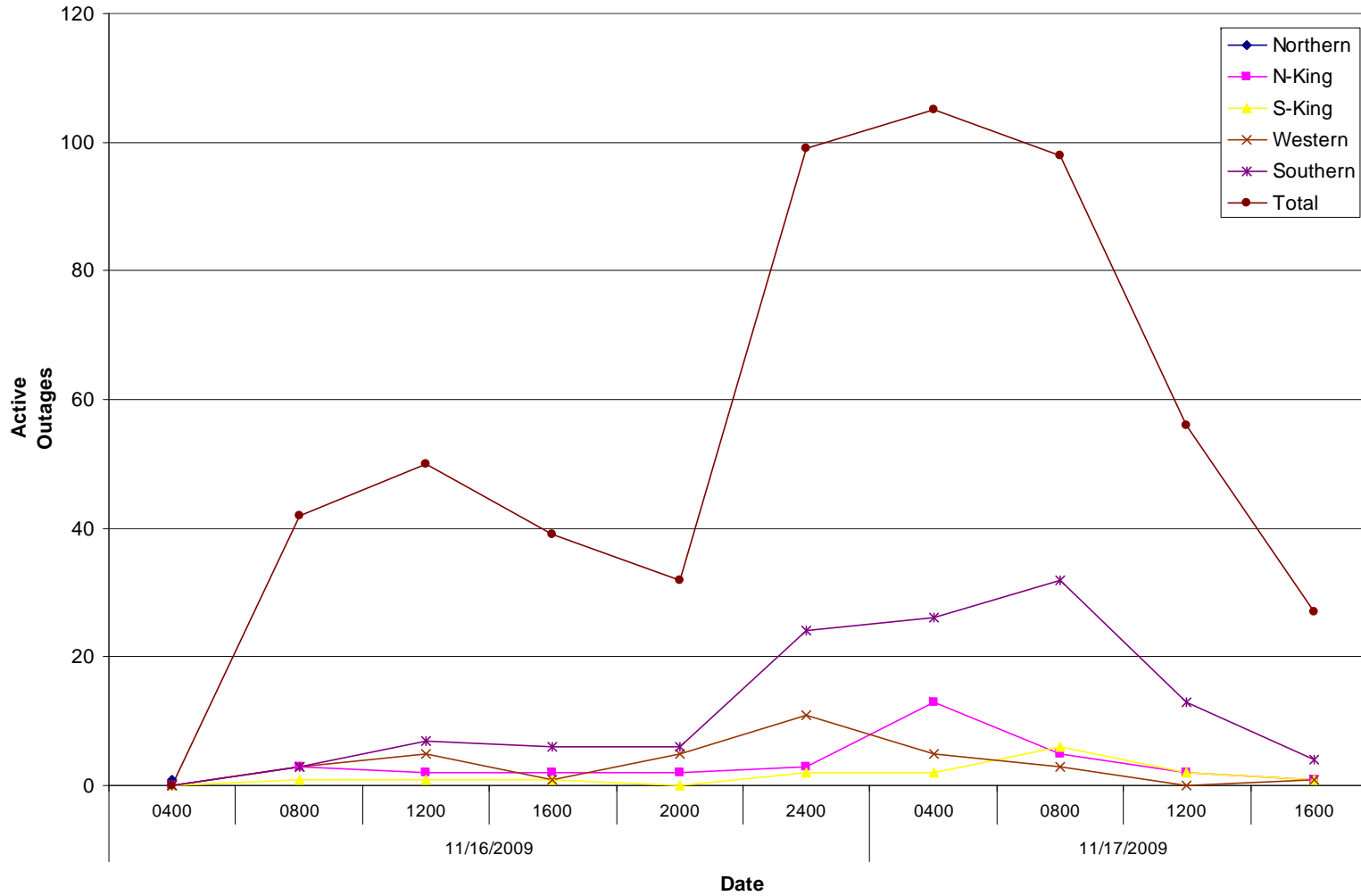
Operating Bases

Base	Date Opened	Time Opened	Date Closed	Time Closed
Kitsap	11/16/2009	23:15	11/17/2009	13:00
Jefferson	11/16/2009	23:15	11/17/2009	13:00
Whatcom	11/17/2009	00:00	11/17/2009	21:30
Skagit	11/17/2009	00:00	11/17/2009	16:30
Island	11/17/2009	00:00	11/17/2009	16:30

Emergency Operations Center

EOC	Date Opened	Time Opened	Date Closed	Time Closed
	11/17/2009	01:10	11/17/2009	10:45

Outage Events - Nov 16, 2009 to Nov. 17, 2009



Major Event Day – Qualification

IEEE 1366 Method

IEEE 1366 was established to present a set of terms and definitions which can be used to foster uniformity in the development of distribution 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 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 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 3.
6. Compute the threshold Tmed where $Tmed = \exp(\text{Alpha} + 2.5 * \text{Beta})$
7. Any day in the next year with SAIDI > Tmed is a major event day.

Puget Sound Energy's Major Event Threshold for 2009: 6.95 Minutes

Qualified Events - 2009

Current Event – Calculation Detail

Event Date	Total Customer Minutes	Average Customer Count	Daily SAIDI – Customer Minutes /Customer Count
01/04/2009	11,077,174	1,075,377	10.30
11/05/2009	7,626,819	1,078,555	7.07
11/16/2009	13,172,993	1,078,555	12.21

Cumulative list of events that have qualified

Date(s)	T-med Score	O&M – Deferrable Accumulation
01/04/2009	10.30	\$588,391
11/05/2009	7.07	\$499,136
11/16/2009	12.21	\$1,155,567

Event Restoration – Cost Summary

Restoration Cost Detail by Qualifying Event

Date	Qualified Events Deferred Account	Capital	C&D Costs Recoverable from Direct Billings (Costs Not Yet Billed)	O&M – Not Deferrable	O&M – Deferrable Accumulation	Total O&M	Total
01/04/2009	\$0	\$27,264	\$0	\$36,325	\$588,391	\$624,716	\$651,981
11/05/2009	\$0	\$27,890	\$0	\$33,627	\$499,136	\$532,763	\$560,654
11/16/2009	\$0	\$356,707	\$0	\$56,177	\$1,155,567	\$1,211,744	\$1,568,451

YTD Storm Restoration Cost Detail – Through Nov 16, 2009

Qualified Events Deferred Account	Capital	C&D Costs Recoverable from Direct Billings (Costs Not Yet Billed)	O&M – Not Deferrable	O&M Deferrable Accumulation	Total O&M	Total
\$0	\$411,861	\$0	\$126,129	\$2,243,94	\$2,369,223	\$2,781,085

Qualifying Storm Event
November 16, 2009

Detail Documents

Restoration Cost Detail – Current Event

Detailed List of Distribution Circuits with Outages

Terms, Codes & Definitions Used on Detail Reports

Newsprint Media Coverage

Restoration Cost Detail – Current Event

Puget Sound Energy							
November 16, 2009 Storm Damage Repair Costs							
	Qualifying Events Deferred Account	Capital	C&D Recoverable from Direct Billings (Costs Not Yet Billed)	O&M - Not Deferrable	O&M - Deferrable Accumulation	Total O&M	Total
Labor							
ST		\$ 41,060			\$ 37,397	\$37,397	\$78,457
OT					\$ 54,002	\$54,002	\$54,002
Total Labor	\$0	\$ 41,060	\$0	\$0	\$ 91,398	\$91,398	\$132,458
Labor OH		\$ 28,007			\$ 38,027	\$38,027	\$66,034
Materials		\$117,194			\$ 65,573	\$65,573	\$182,767
Contractors		\$102,315			\$ 922,446	\$922,446	\$1,024,761
Other Direct Charges					\$ 3,261	\$3,261	\$3,261
		\$					
Fleet		4,544			\$ 14,653.95	\$14,654	\$19,198
Other Assessments		\$ 63,588		\$ 56,177	\$ 20,207	\$ 76,384	\$139,971.42
Deferred Expenses					\$0	\$0	\$ -
	\$0	\$356,707	\$0	\$56,177	\$ 1,155,567	\$1,211,744	\$1,568,451

IEEE-1366 - Detailed List of Distribution Circuits with Outages

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E781809882	11/16/2009	22:55:00	BCH-15	EAA	TF	OCO	16	16,160
E377384821	11/16/2009	10:35:00	SEH-12	EAA	TO	OTH	12	2,664
E574086580	11/16/2009	11:35:00	HAP-13	EAA	TF	OCO	13	4,264
E641761198	11/16/2009	22:51:00	VIK-25	EAA	TO	OTR	41	29,438
E438982296	11/16/2009	20:10:00	RIV-15	EAC	TF	OCO	247	28,790
E420356581	11/16/2009	22:45:00	LLS-15	EAA	TO	OSW	102	135,864
E251451965	11/16/2009	7:19:00	PTR-14	EAA	TO	OPO	22	40,458
E437798514	11/16/2009	5:38:00	LYN-23	EAA	TO	OPO	93	44,454
E751858240	11/16/2009	22:54:00	LLS-17	EAA	TF	OPO	54	43,254
E384183763	11/16/2009	18:57:00	HKX-12	EAC	TO	OPO	78	15,514
E245546847	11/16/2009	23:46:00	WLS-16	EAC	TO	OCO	1	641
E216851290	11/16/2009	6:09:00	CRE-13	EAD	TO	OTR	2	1,704
E254083655	11/16/2009	22:05:00	PET-12	EAC	TO	OCO	9	4,581
E345670008	11/16/2009	22:28:00	MTV-17	EAC	TF	OSV	3	1,311
E526223294	11/16/2009	4:33:00	BRI-15	EAA	TF	OCO	27	16,524
E464968073	11/16/2009	22:23:00	BRI-15	EAA	TF	OCO	38	28,652
E405925900	11/16/2009	22:24:00	LAU-14	EAA	TF	OCO	4	4,108
E961590489	11/16/2009	8:28:00	HAN-16	EAA	TF	OJU	3	2,001
E236048595	11/16/2009	7:44:00	CPV-13	EAD	TO	OCO	17	8,976
E246592610	11/16/2009	7:08:00	NLM-16	EAC	TO	OCO	10	1,840
E474911593	11/16/2009	23:15:00	HKX-16	EAC	TF	OPO	5	1,425
E485112999	11/16/2009	23:00:00	LYN-26	EAA	TO	OPI	35	19,495
E854607487	11/16/2009	17:58:00	VIK-23	EAA	TO	CDH	30	14,010
E597449539	11/16/2009	21:04:00	LGY-12	EAD	TF	OTR	4	1,664
E298078885	11/16/2009	17:34:00	BIG-15	EAC	TO	OCO	21	3,003
E481315155	11/16/2009	22:45:00	CAR-15	EAA	TO	OTR	16	14,880
E896384130	11/16/2009	22:58:00	BCH-16	EAA	TO	OPO	44	53,064
E398541928	11/16/2009	23:32:00	KIN-21	ECE	TO	OCO	23	11,413
E247422162	11/16/2009	12:41:00	BLA-13	EAA	EF	UPC	50	4,950
E844981513	11/16/2009	22:30:00	ROE-13	EAA	TO	OPO	7	6,216
E911725976	11/16/2009	20:03:00	NLM-16	EAC	TO	OCO	21	10,500
E235782252	11/16/2009	6:00:00	CLV-15	EAD	TO	OCO	6	1,806
E463804722	11/16/2009	23:12:00	ALG-15	EAA	TO	OHR	246	218,193
E995935979	11/16/2009	12:38:00	BIG-15	EAC	TO	OCO	33	9,141
E738334366	11/16/2009	1:27:00	BIG-15	EAC	TO	OCO	32	19,296
E119056457	11/16/2009	16:53:00	HAM-15	EAC	TO	OCO	7	2,366
E541211085	11/16/2009	6:03:00	GBK-13	EAD	TO	OCO	10	5,380
E302208561	11/16/2009	22:47:00	NUG-25	EAA	TF	OFC	5	5,155
E936285682	11/16/2009	17:47:00	ALG-15	EAA	TF	OCO	3	969
E697668845	11/16/2009	21:32:00	PGA-15	ECF	TO	OTR	3	1,791
E839314611	11/16/2009	6:18:00	ALG-15	EAC	TO	OCO	5	1,810
E953743333	11/16/2009	10:44:00	VIK-23	EAA	TO	CDH	68	19,856
E861842326	11/16/2009	23:19:00	HAN-13	EAA	TO	OPO	12	15,768
E104960251	11/16/2009	12:34:00	SCH-15	EAA	TO	OCO	161	158,746

Qualifying Storm Event
November 16, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E814114895	11/16/2009	6:37:00	VWY-12	EAA	TF	OCO	35	16,555
E509307112	11/16/2009	8:41:00	SCH-16	EAA	TO	CDH	24	4,680
E710744711	11/16/2009	12:32:00	BTN-35	EAC	TO	OFC	17	3,808
E855557622	11/16/2009	13:46:00	LYN-23	EAA	TF	OCO	161	67,942
E910930580	11/16/2009	7:02:00	BTN-38	EAC	TO	OPO	26	3,368
E348370424	11/16/2009	16:28:00	BTN-35	EAC	EF	OTF	1	67
E224297027	11/16/2009	14:06:00	SCH-16	EAA	TO	OPO	28	16,772
E929434965	11/16/2009	1:34:00	CPV-15	EAD	TF	OCO	19	13,316
E843542062	11/16/2009	22:33:00	VWY-13	EAA	TO	CDH	15	18,495
E773517124	11/16/2009	21:37:00	KEN-12	EAA	TF	OCO	1,253	978,593
E384916177	11/16/2009	7:11:00	NUG-26	EAA	TF	OCO	62	34,844
E307777940	11/16/2009	9:03:00	SLA-17	EAA	TO	OSW	2	902
E263836128	11/16/2009	22:52:00	MCK-12	EAA	TF	OCO	91	36,218
E603878240	11/16/2009	23:58:00	SCH-13	EAA	TO	OCO	19	1,197
E112074139	11/16/2009	23:45:00	PLY-13	EAA	TO	OPO	7	8,631
E820332488	11/16/2009	5:06:00	NUG-25	EAA	TF	OCO	12	5,916
E973034746	11/16/2009	23:22:00	BRW-15	EAC	TO	OCO	5	4,080
E834333678	11/16/2009	14:28:00	GLA-12	EAA	TF	OPI	73	41,683
E190698401	11/16/2009	11:48:00	BRW-15	EAC	TO	OCO	8	1,920
E019388787	11/16/2009	22:41:00	MCK-15	EAA	PO	OCN	9	11,781
E544938134	11/16/2009	14:38:00	WOB-25	EAA	TO	OTF	1	215
E839476728	11/16/2009	22:15:00	FLD-15	EAD	TO	OPI	847	689,458
E719830809	11/16/2009	9:13:00	HLC-23	EAD	TO	OPO	1,062	201,708
E593434098	11/16/2009	22:16:00	KEN-13	EAA	TF	OCO	363	144,837
E751034012	11/16/2009	9:01:00	SCH-13	EAA	TO	OFC	135	117,315
E544169846	11/16/2009	22:55:00	LLS-13	EAA	TF	OCO	35	11,095
E254544846	11/16/2009	23:50:00	VIS-26	EAA	TO	OJU	1	937
E900695601	11/16/2009	11:34:00	HAP-16	EAA	PO	OSV	1	861
E137685007	11/16/2009	21:14:00	NUG-26	EAA	TO	OCO	96	110,016
E817946576	11/16/2009	15:32:00	SUM-21	EAC	TF	OFC	9	1,404
E764327048	11/16/2009	8:38:00	KEN-12	EAA	TF	OCO	99	69,696
E193383337	11/16/2009	22:52:00	PMA-12	ECE	TO	OCO	871	539,149
E410369966	11/16/2009	23:04:00	MIL-22	ECE	TO	OCO	10	6,350
E072976726	11/16/2009	16:02:00	BIG-12	EAC	TF	OCO	14	2,268
E901390209	11/16/2009	22:06:00	VWY-15	EAA	TO	OFC	332	368,188
E542609911	11/16/2009	8:22:00	LAB-23	EAA	TF	OHR	75	22,950
E848365143	11/16/2009	21:07:00	CHI-12	ECD	TO	OCO	1,221	416,262
E672538225	11/16/2009	5:11:00	BIG-12	EAC	TO	OCO	155	95,945
E388589806	11/16/2009	2:32:00	HAN-15	EAA	TO	OSV	9	5,058
E986896739	11/16/2009	2:32:00	SUM-21	EAC	TF	OCO	76	53,884
E522709751	11/16/2009	22:30:00	SIL-13	ECE	TO	OCO	40	34,880
E480388352	11/16/2009	21:07:00	CHI-12	ECD	TO	OCO	992	557,543
E849714306	11/16/2009	14:00:00	HAM-13	EAC	TO	OCO	102	88,332
E663195268	11/16/2009	5:02:00	ALG-12	EAC	TO	OPO	94	17,452
E238918759	11/16/2009	21:47:00	SME-15	EBE	TF	OCO	1,261	144,431
E444598751	11/16/2009	23:02:00	COT-13	EBD	TO	OCO	39	7,211
E213982250	11/16/2009	13:42:00	FAL-13	EBF	TO	OCO	8	1,999
E752958615	11/16/2009	18:26:00	NHL-15	EBD	EF	UFJ	68	21,488
E761247996	11/16/2009	4:14:00	KLA-15	EBD	TO	OCO	221	96,781

Qualifying Storm Event
November 16, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E279463485	11/16/2009	10:31:00	LMC-23	EBF	EF	UPC	2	1,136
E142214504	11/16/2009	4:41:00	CLV-16	EAD	TO	OCO	48	4,752
E437058367	11/16/2009	5:22:00	BLA-13	EAA	TO	OCO	691	80,806
E049777908	11/16/2009	1:14:00	WOB-25	EAA	TF	OCO	8	2,078
E211142042	11/16/2009	1:00:00	SLA-15	EAA	EF	OCO	896	254,210
E177771667	11/16/2009	2:42:00	SCH-16	EAA	TF	OCO	236	67,968
E233251467	11/16/2009	1:31:00	CRE-12	EAD	TO	OCO	9	10,548
E368613816	11/16/2009	10:26:00	ORC-17	EBJ	TF	OCO	2	182
E068788442	11/16/2009	9:28:00	FWD-17	EBJ	EF	OCO	3	411
E659893181	11/16/2009	11:45:00	WAB-13	EBI	TO	OCO	25	5,407
E651300361	11/16/2009	5:34:00	OSC-22	EBI	EF	UPC	2	742
E533086744	11/16/2009	20:20:00	FRG-22	ECC	EF	OCO	291	41,134
E649280621	11/16/2009	5:51:00	BLU-13	ECC	TF	OCO	6	1,398
E830423674	11/16/2009	9:47:00	GRI-16	ECC	TF	OPS	3	735
E220823788	11/16/2009	9:22:00	DGR-13	ECA	TF	OCO	5	1,330
E699439671	11/16/2009	19:07:00	PRI-23	ECC	TO	OCO	3	856
E408439181	11/16/2009	5:43:00	LON-22	ECC	TF	OCO	7	2,128
E391981522	11/16/2009	2:37:00	FRG-24	ECC	TO	OCO	5	1,555
E388638101	11/16/2009	22:02:00	HEM-16	ECA	TF	OSV	1	368
10911646	11/16/2009	18:30:00	DGR-15	ECA	EF	USV	1	399
E502963243	11/16/2009	18:28:00	RAI-13	ECC	EF	OTR	11	4,873
E130921261	11/16/2009	21:38:00	DGR-13	ECA	TO	OCO	14	6,225
10911394	11/16/2009	3:29:00	LUH-14	ECC	EF	OPO	2	990
E959020016	11/16/2009	10:36:00	GRI-13	ECC	TF	OTR	39	26,013
E778299668	11/16/2009	14:46:00	QUI-25	ECF	EF	OCO	4	208
E178055042	11/16/2009	20:31:00	SHE-15	ECE	TO	OFC	55	8,580
E294717454	11/16/2009	18:21:00	QUI-25	ECF	EF	OTR	1	238
E989390399	11/16/2009	20:21:00	VAS-22	EBL	TO	OSV	1	255
E233674377	11/16/2009	16:23:00	SHE-26	ECE	TO	OCO	7	2,339
E376572252	11/16/2009	1:13:00	CHI-12	ECD	TO	OCO	5	1,735
E232227178	11/16/2009	8:37:00	TRA-23	ECE	TO	OCO	7	2,492
10911651	11/16/2009	0:06:00	QUI-26	ECF	TF	OCO	3	1,080
E427793272	11/16/2009	12:20:00	MIL-16	ECE	TF	OTR	3	1,080
E994277672	11/16/2009	20:11:00	DIS-12	ECF	TO	OCO	23	8,970
E482248556	11/16/2009	15:07:00	VAS-23	EBL	EF	UEL	2	857
E830850358	11/16/2009	12:19:00	PGA-13	ECE	TO	OCO	59	25,447
E919821802	11/16/2009	4:29:00	PTL-16	ECF	TO	OCR	1,078	476,476
E307749109	11/16/2009	10:22:00	VAS-12	EBL	TO	OTR	7	3,382
E814365325	11/16/2009	8:18:00	POU-16	ECE	TO	OSV	3	1,476
E027114665	11/16/2009	21:11:00	PMA-15	ECE	TO	OCO	2	1,132
E921992317	11/16/2009	10:19:00	VAS-13	EBL	TO	OCO	50	29,558
E968344076	11/16/2009	21:58:00	PGA-12	ECE	TO	OCO	20	11,960
E986845910	11/16/2009	3:04:00	QUI-25	ECF	TO	OCO	14	9,646
E507003111	11/16/2009	21:52:00	VAS-13	EBL	TO	OCO	14	9,982
E642057895	11/16/2009	23:28:00	CHR-22	ECE	TO	OPO	55	51,590
E347952648	11/16/2009	17:46:00	OBY-16	ECC	EF	USV	1	156
E049996926	11/16/2009	8:13:00	ING-16	EBD	TO	OCO	1	47
E664327192	11/16/2009	6:14:00	HAZ-12	EBE	TF	OTF	1	48
E300960917	11/16/2009	23:06:00	PIN-26	EBF	TO	OCO	1,645	119,473

Qualifying Storm Event
November 16, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E386362924	11/16/2009	6:37:00	DUV-12	EBD	TO	OCO	4	296
E643980301	11/16/2009	8:59:00	DUV-15	EBD	TF	OFU	3	228
E845601821	11/16/2009	8:37:00	COT-13	EBD	TO	OCO	2	162
E728612027	11/16/2009	22:23:00	MER-16	EBE	TO	OCO	55	4,722
E851098592	11/16/2009	3:23:00	OVE-15	EBE	TO	OCO	543	49,413
E188503136	11/16/2009	1:44:00	EGT-28	EBE	TO	OCO	1,582	156,882
E185123704	11/16/2009	21:46:00	TOT-22	EBD	TO	OCO	160	16,341
E413797345	11/16/2009	6:43:00	ING-13	EBD	EF	OCO	13	1,430
E111938269	11/16/2009	3:41:00	LMC-23	EBF	TO	OCO	6	667
E439364887	11/16/2009	19:15:00	NBO-26	EBD	TO	OCO	9	1,039
E359512775	11/16/2009	23:48:00	MED-37	EBE	EF	OFU	1	116
E016112467	11/16/2009	4:29:00	ING-15	EBD	TO	OCO	6	714
E448243689	11/16/2009	22:38:00	JUA-13	EBD	EF	OJU	3	432
E436250144	11/16/2009	5:30:00	SPI-17	EBD	TO	OCO	7	1,127
E452048853	11/16/2009	12:09:00	SCH-16	EAA	TO	OFU	17	17
E959548431	11/16/2009	13:08:00	LAB-27	EAA	TO	OFU	1	52
E381419001	11/16/2009	4:02:00	BCH-13	EAA	TO	OFU	10	620
E797937870	11/16/2009	14:06:00	PET-12	EAC	EF	OFU	2	148
E722555482	11/16/2009	20:52:00	MCK-16	EAA	TO	OFU	60	4,980
E477477840	11/16/2009	19:15:00	LGY-16	EAD	TF	OFU	50	4,250
E226322624	11/16/2009	17:49:00	NLM-13	EAC	TF	UTC	2	172
E914715677	11/16/2009	17:56:00	CPV-12	EAD	TO	OFU	1	102
E140183273	11/16/2009	12:56:00	SWA-13	EAD	EF	OCO	12	1,308
E620254819	11/16/2009	20:07:00	VIS-26	EAA	TF	OSV	3	357
E561793719	11/16/2009	22:52:00	MCK-16	EAA	TO	OCO	958	122,624
E244071865	11/16/2009	20:50:00	LYN-23	EAA	TO	OFU	8	1,040
E034391067	11/16/2009	12:25:00	HAM-15	EAC	TO	OFU	9	1,181
E396671170	11/16/2009	0:47:00	CPV-13	EAD	TO	OCO	574	75,768
E537708124	11/16/2009	1:36:00	CPV-12	EAD	EF	OFU	5	724
E980068295	11/16/2009	22:33:00	BLA-13	EAA	TO	OCO	683	100,401
E058076092	11/16/2009	1:32:00	BLA-13	EAA	TF	OFU	40	6,429
E759420010	11/16/2009	2:53:00	NUG-26	EAA	TF	OFU	10	1,710
E197430219	11/16/2009	8:11:00	CAR-15	EAA	TO	OTF	7	1,288
E452289202	11/16/2009	14:19:00	VWY-15	EAA	TO	OFU	4	764
E050118463	11/16/2009	6:52:00	MCK-12	EAA	TO	OCO	236	48,616
E186422950	11/16/2009	9:17:00	SEH-11	EAA	TO	OFU	2	426
E326660908	11/16/2009	16:46:00	NUG-26	EAA	EF	OFU	13	2,912
E687773649	11/16/2009	2:11:00	KEN-13	EAA	TF	OCO	21	4,809
E556591732	11/16/2009	6:42:00	OLD-26	EAA	TO	OCO	200	51,000
E714408250	11/16/2009	5:43:00	MTV-16	EAC	EF	OFC	12	3,084
E704171405	11/16/2009	5:59:00	MCK-16	EAA	TO	OCO	958	248,122
E110890346	11/16/2009	7:21:00	HAM-01	EAC	WT	SWD	2,029	525,511
E414702084	11/16/2009	4:34:00	VIK-01	EAA	WT	SWD	3,907	1,030,336
E571728102	11/16/2009	7:45:00	RIT-19	EAC	TO	OCO	6	1,626
E826392000	11/16/2009	2:30:00	GLA-12	EAA	TF	OFU	27	7,695
E084070593	11/16/2009	22:55:00	HAN-16	EAA	TF	OCO	1,014	292,032
E568832034	11/16/2009	10:38:00	PLY-16	EAA	TO	OTF	3	876
E487763528	11/16/2009	12:07:00	ALG-15	EAA	TO	OFU	10	2,980
E109817706	11/16/2009	1:08:00	NLM-16	EAC	TO	OFU	22	7,122

Qualifying Storm Event
November 16, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E983069347	11/16/2009	8:52:00	BIG-16	EAC	EF	OCN	5	1,665
E639563640	11/16/2009	23:04:00	SST-17	EAA	TO	OFU	25	8,475
E888395269	11/16/2009	7:20:00	PET-13	EAC	EF	OFC	2	690
E887619776	11/16/2009	5:21:00	PET-12	EAC	TO	OFU	33	11,682
E698655350	11/16/2009	8:20:00	LAU-12	EAA	TO	OFU	27	9,720
E161007995	11/16/2009	23:40:00	BAK-25	EAA	TF	OSV	2	760
E483864689	11/16/2009	1:03:00	KEN-12	EAA	TO	OTF	4	1,548
E477530034	11/16/2009	12:54:00	HAN-13	EAA	TF	OFU	7	2,814
E219013029	11/16/2009	22:59:00	LGY-15	EAD	TO	OCO	383	155,139
E765617383	11/16/2009	4:20:00	SCH-15	EAA	TF	OFU	30	13,440
E096765748	11/16/2009	22:49:00	SUM-21	EAC	TF	OTF	4	2,024
E734385594	11/16/2009	4:18:00	VWY-15	EAA	TF	OFU	8	4,336
E319021507	11/16/2009	6:25:00	WOB-27	EAA	TO	OFU	7	4,375
E524163120	11/16/2009	23:26:00	BCH-13	EAA	TF	OSV	6	4,584
E628900084	11/16/2009	22:35:00	CAR-16	EAA	TO	OFU	6	5,400
E139616509	11/16/2009	10:04:00	PEA-15	EBJ	UN	OTF	2	64
E566638598	11/16/2009	3:49:00	MVW-13	EBJ	TO	OTF	3	197
E423244392	11/16/2009	21:30:00	PEA-15	EBJ	TO	OTF	2	149
E886155866	11/16/2009	17:08:00	HOB-16	EBI	TO	UOT	2	151
E638075577	11/16/2009	10:15:00	WAB-13	EBI	TF	OFU	55	4,620
E972711205	11/16/2009	21:48:00	ENU-17	EBI	TO	OSV	3	280
E452195114	11/16/2009	3:31:00	OSC-23	EBI	TF	OFU	12	1,308
E879738628	11/16/2009	22:24:00	MVW-13	EBJ	TF	OFU	50	6,838
E006038916	11/16/2009	3:56:00	SWE-23	EBJ	TF	OSV	1	143
E134395218	11/16/2009	8:00:00	ENU-17	EBI	SO	UPC	1	197
E335578686	11/16/2009	3:19:00	FWD-17	EBJ	TF	OSV	1	226
E267129613	11/16/2009	12:27:00	HOB-16	EBI	TO	OTR	2	562
10911631	11/16/2009	19:45:00	RAI-13	ECC	EF	OFC	3	108
E887351782	11/16/2009	10:38:00	EDG-15	ECA	TF	OFU	3	114
E764847322	11/16/2009	11:38:00	FRG-24	ECC	EF	OTF	1	40
E029368206	11/16/2009	7:53:00	BON-16	ECA	TF	OTF	2	114
E869499009	11/16/2009	8:53:00	HAW-11	ECC	TF	OCO	543	32,580
E684605888	11/16/2009	17:06:00	BLU-16	ECC	EF	OTF	2	122
10911393	11/16/2009	3:37:00	FRG-24	ECC	TF	OCO	200	13,200
10911632	11/16/2009	18:17:00	YEL-25	ECC	EF	OTF	1	67
E923602704	11/16/2009	21:09:00	YEL-23	ECC	TO	OCO	1,176	86,828
E988916897	11/16/2009	11:56:00	AIR-23	ECC	TF	OFU	9	711
E434967074	11/16/2009	20:59:00	BUC-16	ECA	TO	OCO	139	11,398
E066741617	11/16/2009	13:57:00	SMR-23	ECA	EF	OCN	1	86
E877629276	11/16/2009	21:42:00	LTA-18	ECA	TO	OCO	1,070	99,671
E388450246	11/16/2009	3:19:00	EDG-12	ECA	TO	OFU	10	1,025
E035904954	11/16/2009	19:34:00	MCA-15	ECC	TO	OCO	331	36,322
E429361910	11/16/2009	4:29:00	BON-13	ECA	TO	OCO	1,217	133,769
E385304430	11/16/2009	3:34:00	WLK-13	ECA	TF	OFU	1	115
E665774322	11/16/2009	20:58:00	FRG-25	ECC	TO	OCO	1,351	165,790
E522696554	11/16/2009	2:45:00	RAI-14	ECC	TF	OTF	1	124
E218061362	11/16/2009	20:56:00	TLN-0035	ECA	TF	OCO	1,522	190,250
E747239141	11/16/2009	4:31:00	CHA-13	ECC	TF	OFU	12	1,524
E600181147	11/16/2009	21:59:00	HEM-17	ECA	EF	OFU	90	12,257

Qualifying Storm Event
November 16, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E535990865	11/16/2009	20:46:00	TLN-0040	ECA	TF	OCO	8,892	1,239,869
E569052535	11/16/2009	21:45:00	LON-26	ECC	EF	OFU	15	2,268
E948418552	11/16/2009	2:49:00	ORT-22	ECA	TF	OCO	1	158
E773448504	11/16/2009	20:09:00	POU-16	ECE	EF	OTF	1	76
10911601	11/16/2009	0:46:00	QUI-25	ECF	TO	OFU	3	237
E471322938	11/16/2009	7:22:00	RPT-17	ECD	EF	OTF	2	174
E302497345	11/16/2009	11:21:00	VAS-23	EBL	EF	OFU	2	190
E078092622	11/16/2009	10:13:00	CEK-16	ECE	PO	OSV	1	109
E095448525	11/16/2009	12:54:00	SIL-15	ECE	UN	OFU	2	222
E540540904	11/16/2009	19:04:00	SHE-25	ECE	TF	OSV	1	117
E912345132	11/16/2009	9:18:00	CHM-11	ECF	UN	OFU	5	595
E087641172	11/16/2009	22:46:00	WIN-13	ECE	TF	OTF	1	122
E604921520	11/16/2009	12:26:00	CHI-12	ECD	TO	OFU	26	3,224
E896282792	11/16/2009	1:48:00	SHE-25	ECE	UN	OFU	5	633
E735637387	11/16/2009	13:00:00	HAS-15	ECF	TO	OSV	4	516
10911550	11/16/2009	0:23:00	CHI-12	ECD	TO	OCO	1	142
E097943350	11/16/2009	22:35:00	SIL-16	ECD	TO	OFU	39	5,706
E990523314	11/16/2009	22:24:00	CHM-11	ECF	TF	OCO	37	5,792
E697665996	11/16/2009	22:53:00	KIN-23	ECE	TO	OCO	159	27,189
E073388814	11/16/2009	23:40:00	TRA-26	ECE	TO	OCO	52	8,892
E714832742	11/16/2009	1:24:00	PTL-13	ECF	TO	OCO	5	899
E217280114	11/16/2009	17:05:00	FRA-12	ECD	TO	OCO	7	1,547
E544008544	11/16/2009	20:33:00	SIL-13	ECF	TO	OCO	345	82,852
E968556168	11/16/2009	7:29:00	HAS-15	ECF	TO	OCO	7	2,107
E364928123	11/16/2009	22:35:00	SIL-16	ECE	TO	OCO	1,763	540,096
E552631824	11/16/2009	22:12:00	SIL-15	ECD	TO	OCO	34	21,352
E631058823	11/16/2009	23:12:00	SHE-26	ECE	TF	OTF	1	629

Terms, Codes and Definitions Used on Detail Reports

Notification	[Notification Number] A number assigned by SAP, identifying the outage record
Date	The date of the outage
Time	The time of the outage
Circuit	[Reference Circuit] The circuit identifier for the affected circuit
F/LOC	[Functional Location] The grid number where the outage occurred. If the grid number is not available, the Reference Circuit identifier occupies this field
EQT NBR	[Equipment Number] A number used to tie the equipment involved in the outage to the related information in SAP. This number does not represent the physical number of the equipment

Area	[Maintenance Planner Group] A code representing the energy, region and service center	
	EAA – Bellingham	EBJ – South King
	EAB – Lynden	EBK – Southwest King
	EAC – Skagit	EBL – Vashon
	EAD – Whidbey	ECA – Puyallup
	EBD – Redmond	ECC – Olympia
	EBE – Factoria	ECD – Port Orchard
	EBF – Snoqualmie	ECE – Poulsbo
	EBI – Enumclaw	ECF – Port Townsend

Cause	Cause of Outage	
	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
	SO – Scheduled Outage	UN – Unknown

Equipment	Affected by, or involved in the outage	
	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	

Codes, Definitions – Continued

CUST OUT	[Customer Out] The number of customers without power for any given outage record
CUST MIN	[Customer Minutes] The total number of minutes customers were without power for any given record
CODE	[Storm Code] An event descriptor
	NON – Non Storm / Normal Conditions
	WTH – Weather Related (eg: wind storm, showers, etc)
	MAJ – Major event

Media Coverage



Wednesday, November 18, 2009

Storm blows in, twice

WHATCOM — In repeat performances Sunday and Monday nights, stormy weather pounded the Pacific Northwest, although north Whatcom experienced lesser effects than other areas.

Winds rose to between 50 and 60 miles per hour each night, with a lull of quiet during the day Monday.

The second version was worse than the first, said Sgt. Larry Flynn of the Whatcom County Sheriff's Office. He lost count between 20 and 30 of reports of trees or power lines down during the night Monday to Tuesday, he said.

At first, no major power or phone outages were reported in the north county, although there was about a 10-second loss of power in Lynden at about 10:30 p.m. Monday. Then, for nearly an hour Tuesday morning, downtown and western Lynden were out of power.

A Puget Sound Energy spokesperson said the cause was tree limbs in a power line that needed to be repaired.

Problems were worst overnight Sunday especially along Lake Whatcom Boulevard, Flynn said.

The National Weather Service at first called for a flood watch on the Nooksack River, but that was later cancelled and the river was cresting below flood stage Tuesday.

A warm front brought light to moderate rainfall to western Washington Sunday. A new frontal system then developed first over the Olympics and reached the north Cascades with heavier rain Monday afternoon.

The double whammy storm event could be considered the beginning of the fall/winter storm season, said Bellingham Fire Department chief Bill Boyd, and he offered these safety tips for winter storm readiness:

- Prepare now to be without power. Make sure you have food and a battery-operated radio.
- Call 9-1-1 only for life- or property-threatening emergencies. Non-emergency calls clog emergency lines.
- Call Puget Sound Energy directly at 1-888-225-5773 to report power related problems, including downed power lines that are not threatening life or property. Be patient; during a significant storm, power and tree crews will likely be delayed.
- Stay away from any downed utility lines. Consider all downed lines to be live power lines. Do not touch any object that may be in contact with downed lines.
- Use open flame candles only with extreme caution if being used to provide light during a power outage. Each year, the Bellingham Fire Department responds to devastating house fires started by unattended candles and/or candles burning next to combustible materials.

Qualifying Storm Event
November 16, 2009

- Use extreme caution in trying to perform repair work outdoors during a storm. You run the risk of being struck by flying materials, including branches, trees, fencing and other loose objects.
- Understand that your home cordless phone may not work if the power is off. In case of emergency in this situation, you will need to use a regular “old-fashioned” phone, or cell phone to call 911.

The Seattle Times

Winds cause power outages in the Puget Sound area

By Seattle Times staff Tuesday, November 17, 2009 - Page updated at 09:04 AM

High winds and downed tree limbs caused a number of scattered power outages overnight in the Puget Sound area and elsewhere in Western Washington.

Puget Sound Energy spokesman Andy Wappler said about 10,000 PSE customers in the Sumner, Puyallup and Wilkeson areas in Pierce County lost power for just over two hours Monday night when a transmission line was hit by a tree, affecting three substations. Power was restored to most customers just after 11 p.m., he said.

About 1,100 PSE customers in the Yelm area in Thurston County also were without power for about three hours when tree limbs fell into power lines.

Earlier Monday, about 9,000 PSE customers were without power in the Bellingham area and elsewhere in Whatcom, Skagit and Island counties because of wind-related problems. Power was restored to most by midafternoon.

By late Monday, as winds picked up again, PSE reported scattered outages to about 1,500 customers in the Bellingham area and elsewhere in Whatcom County, where winds gusted at more than 50 mph.

Snohomish County PUD spokesman Neil Neroutsos said scattered outages knocked out power to customers in the Edmonds area and elsewhere in the county, but most were expected to be restored by this morning.

One home was damaged by a mud slide in Gig Harbor.

An overnight flood warning for the South Fork of the Stillaguamish River near Granite Falls and at Arlington in Snohomish County was issued Monday evening by the National Weather Service.

No King County rivers were listed among the flood warnings.

The weather service said heavy mountain rain, largely concentrated in the South Fork of the Stillaguamish drainage, was forecast to bring the South Fork to flood stage overnight, along with the main stem of the Stillaguamish River near Arlington.

Minor flooding was reported.

Qualifying Storm Event
November 16, 2009

The flood warning was expected to be in effect through this morning.

A flood warning also was issued for the Chehalis River near Doty in Lewis County through this afternoon. Warnings also were issued for the Skokomish River near Potlatch in Mason County; the Bogachiel River near La Push, the Dungeness River near Sequim and the Elwha River in Clallam County; and the Satsop River near Satsop in Grays Harbor County.

Copyright © The Seattle Times Company

The Seattle Times

Monday, November 16, 2009 - Page updated at 09:52 AM



GREG GILBERT / THE SEATTLE TIMES

A large cedar tree split and fell on the roof of this home at 132 North 78th Street.

High winds and rain expected again tonight

By Susan Gilmore, *Seattle Times* staff reporter

High winds and rain will hammer Western Washington again tonight and Tuesday after a brief lull as today's storm taper off this afternoon.

Jeff Michalski, meteorologist with the National Weather Service, said the storm passing through the area this morning brought wind gusts as high as 50 mph in Bellingham. He said gusts in the Seattle area were 20 to 30 mph.

"We'll have a lull this afternoon and it picks up again overnight when storm No. 2 comes in," said Michalski. He said that storm has the potential of high winds, particularly on the coast and the north part of the state.

He said most of the rain will be in the Olympics and the North Cascades. One river, the Skokomish in Mason County, is at flood stage and is flooding pasture land.

He said Wednesday looks breezy, and another system will come in Wednesday night.

Qualifying Storm Event
November 16, 2009

High winds toppled a part of a tree onto two houses in the 100 block of North 78th Street in Greenwood about 3 a.m. today, according to our news partners at PhinneyWood.com. Two people who live in one of the homes told PhinneyWood they heard "a crack and a crash."

Susan Gilmore: 206-464-2054 or sgilmore@seattletimes.com

Wind storm coming to parts of Western WA

Monday, November 16, 2009

The National Weather Service [has issued a high wind warning](#) for half a dozen areas of the state:

- San Juan County
- Western Whatcom County
- Western Skagit County
- Admiralty Inlet Area
- North Coast
- Central Coast

The agency says that "a strong Pacific frontal system just offshore will produce damaging winds along the coast and in the north interior this morning...More widespread high winds are possible Monday night and Tuesday...Local damaging wind gusts to around 60 mph can be expected as a strong weather system moves through the region."

The Seattle Times

Monday, November 16, 2009 - Page updated at 12:31 AM

High winds, rain expected today

The first major windstorm of the fall is expected to hit the Seattle area this morning, as a low-pressure system brings 25- to 35-mph winds to the area, along with heavy morning rain and stronger winds tonight.

The National Weather Service is predicting sustained wind speeds of about 45 mph with gusts as high as 60 mph — enough to knock out power and bring down tree limbs, said weather-service meteorologist Dennis D'Amico.

Qualifying Storm Event
November 16, 2009

The weather service has issued both a high-wind watch and a wind advisory for tonight. Low-pressure systems off the coast also could mean flooding in the North Cascades and Olympics, and in Snohomish, Whatcom and Skagit counties, he said. No flooding is expected along the Green River, D'Amico said.

— *Katherine Long, Seattle Times staff*

MYNorthwest.com

[Return to MyNorthwest.com](http://MyNorthwest.com)



Windy, rainy start to week in Puget Sound area
KIRO Radio staff

The National Weather Service says the high winds that hit Western Washington early Monday will be followed by a stronger system Monday night and Tuesday with possible damaging winds.

Puget Sound Energy and Seattle City Light reported scattered outages.

In Seattle's Greenwood neighborhood a large cedar tree hit the roof of one home and sent a branch through a neighbor's living room. No one injured.

A power outage at Western Washington University in Bellingham forced the university to suspend classes until noon Monday.

At Gig Harbor a mudslide knocked down a garage and buried two cars. Two residents of the house escaped unharmed.

Waves kicked up by the winds crashed against the 520 Bridge spilling water over the roadway for the Monday morning commute.

Because of the chance of stronger winds, a high wind watch is in effect Monday and Tuesday for all of Western Washington.

Qualifying Storm Event
November 16, 2009

Heavy rain is filling rivers that flow off the Olympics and North Cascades. A flood warning is in effect for the Skokomish River. Flooding is a possibility on the Nooksack. Forecasters do not expect any significant flooding for the Green River valley.

Eastern Washington is relatively calm by comparison with a chance of valley rain and mountain snow through Tuesday.

© 2009 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Fallen Trees, Power Outages, Slide Results Of Powerful Storm

Posted: 6:41 am PST November 16, 2009; Updated: 9:40 am PST November 16, 2009

SEATTLE -- High winds and soaking rain caused a huge tree to fall onto two homes, triggered a landslide and caused power outages in an ongoing storm Monday.

KIRO 7 meteorologists said the strongest winds will be along the coast and north of Everett with gusts up to 50 mph. Seattle will see gusts of 31 mph.

Those winds caused a tree to topple onto two homes in Seattle's Greenwood neighborhood. A 50-foot cedar tree crashed through the roof of one home at about 3:30 a.m. and sent a branch through another home's living room as the tree split into three pieces. The falling tree also ripped down a power line.

In Bellingham, where there's gusts of 50 mph, winds caused an outage near the courthouse, sent debris flying down the street and twisted street signs.

Winds are also gusting to about 50 mph on Whidbey Island and power outages caused by high winds closed Bellingham's Western Washington University until noon.

There have been reports of more trees down across Western Washington and a high wind watch is in effect Monday and Tuesday for the entire region.

Heavy rain is filling rivers that flow off the Olympics and North Cascades. A flood warning is in effect for the Skokomish River and flooding is a possibility for the Nooksack as well.

The rain triggered a mudslide overnight in Gig Harbor. The slide occurred near the Fox Island Bridge, sending mud into a driveway and up against the home and garage. The force of the slide ripped off the garage door.

Argier said the wind will break around 1 p.m. but will again pick up Monday night and into Tuesday morning as a second storm that could bring even stronger widespread winds develops.

Copyright 2009 by KIROTV.com. The Associated Press contributed to this report. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Qualifying Storm Event
November 16, 2009



Tuesday, November 17, 2009

Thousands without power in Western Wash.

SEATTLE - A number of power outages in Western Washington have thousands of residents in the dark Tuesday morning.

The biggest power outage is in Grays Harbor County, which has about 13,000 customers without electricity. High winds Monday night knocked down trees in the area and toppled power lines. Gray Harbor PUD wants to hear from anyone who has no power or trees down. Customers are urged to call them at 360-537-3721.

Mason County PUD reports about 1,000 customers are without power, most of those in the Hood Canal and Hoodspport area. Snohomish County PUD crews are trying to restore power to about 800 customers.

Puget Sound Energy crews have also been busy overnight working to restore power in number of cities. About 6,000 customers in Whatcom County are without power, 1,200 customers on Mercer Island, 1,200 in Kitsap County and a couple of scattered power outages throughout the area. Crews do not know when power will be restored.

About 2,600 people in Kirkland were without power; power has since been restored. At the height of the power outages, about 20,000 customers total were without electricity.



2009 Qualifying Storm Events

November 18, 2009

Table of Contents

Table of Contents	2
Event Description	3
Date of event	3
Event Type.....	3
Service Areas Affected	3
Number of Customers Affected.....	3
Summary of System Impacts	3
Mobilization Summary	3
Major Event Day – Qualification.....	5
Qualified Events - 2009	5
Current Event – Calculation Detail	5
Cumulative list of events that have qualified	5
Event Restoration – Cost Summary	6
Restoration Cost Detail by Qualifying Event.....	6
YTD Storm Restoration Cost Detail – Through November 18, 2009	6
Detail Documents	7
Restoration Cost Detail – Current Event	8
IEEE-1366 - Detailed List of Distribution Circuits with Outages.....	9
Terms, Codes and Definitions Used on Detail Reports.....	13
Media Coverage	15

Event Description

Date of event

November 18, 2009

Event Type

Wind storm.

Service Areas Affected

This weather event affected primarily Whatcom, Skagit, Island, Thurston, Kitsap and Jefferson Counties.

Number of Customers Affected

Approximately 47,600 customers were without power over the course of this outage event.

Summary of System Impacts

Total Number of Outages	289
Distribution Circuits Totally Out	11
Distribution Circuits Partially Out	278

Transmission Circuits Affected	11
Substations Totally Off-line	0

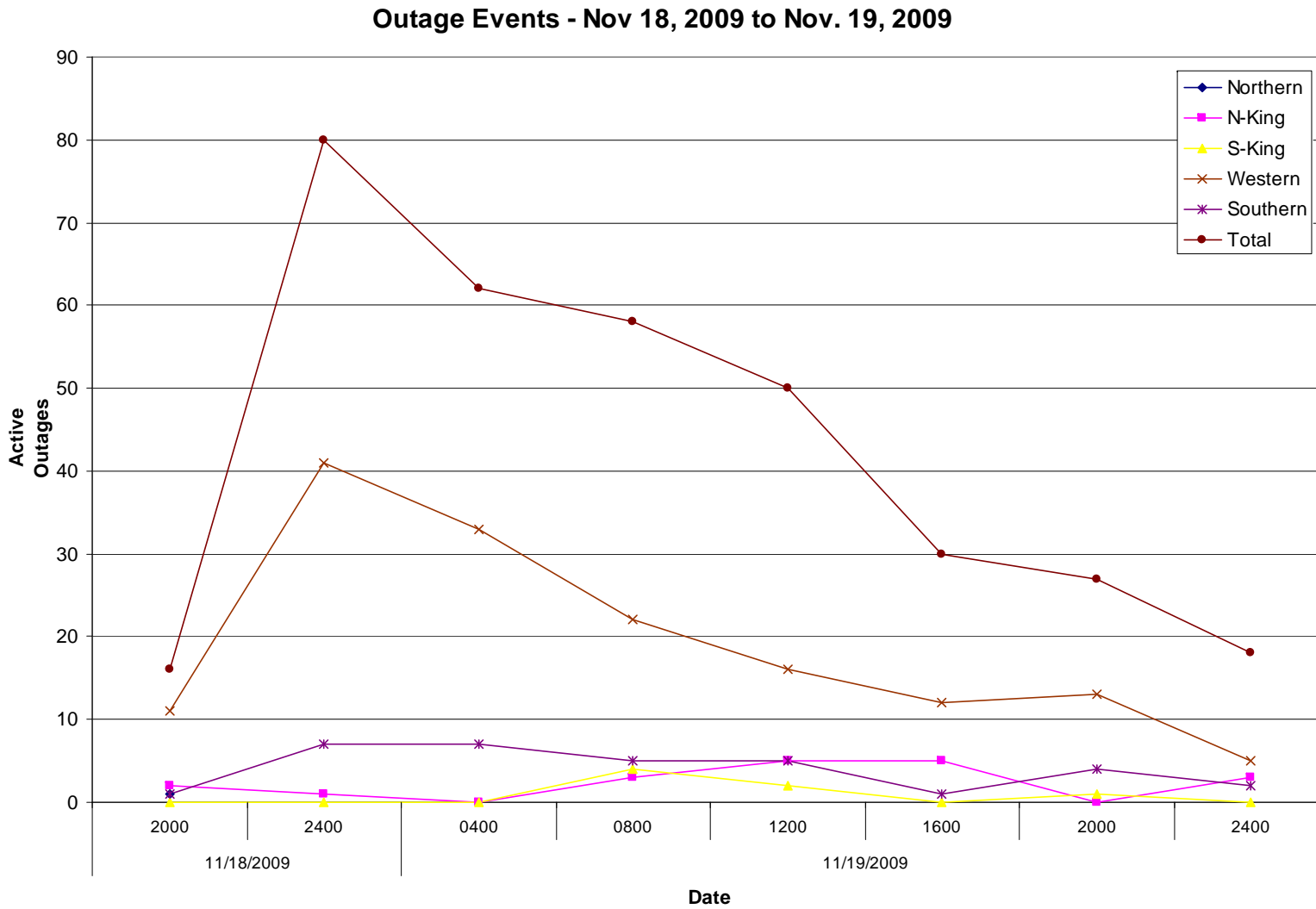
Mobilization Summary

Operating Bases

Base	Date Opened	Time Opened	Date Closed	Time Closed
Jefferson	11/18/2009	18:00	11/19/2009	06:00
Kitsap	11/18/2009	18:00	11/19/2009	06:00
Whatcom	11/18/2009	18:30	11/19/2009	10:00
Skagit	11/18/2009	18:30	11/19/2009	10:00
Island	11/18/2009	18:30	11/19/2009	10:00
Thurston	11/18/2009	21:30	11/19/2009	19:00

Emergency Operations Center

EOC	Date Opened	Time Opened	Date Closed	Time Closed
	--	--	--	--



Major Event Day – Qualification

IEEE 1366 Method

IEEE 1366 was established to present a set of terms and definitions which can be used to foster uniformity in the development of distribution 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 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 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 3.
6. Compute the threshold Tmed where $Tmed = \exp(\text{Alpha} + 2.5 * \text{Beta})$
7. Any day in the next year with SAIDI > Tmed is a major event day.

Puget Sound Energy's Major Event Threshold for 2009: 6.95 Minutes

Qualified Events - 2009

Current Event – Calculation Detail

Event Date	Total Customer Minutes	Average Customer Count	Daily SAIDI – Customer Minutes /Customer Count
01/04/2009	11,077,174	1,075,377	10.30
11/05/2009	7,626,819	1,078,555	7.07
11/16/2009	13,172,993	1,078,555	12.21
11/18/2009	10,873,993	1,078,555	10.08

Cumulative list of events that have qualified

Date(s)	T-med Score	O&M – Deferrable Accumulation
01/04/2009	10.30	\$588,391
11/05/2009	7.07	\$499,136
11/16/2009	12.21	\$1,155,567
11/18/2009	10.08	\$937,313

Event Restoration – Cost Summary

Restoration Cost Detail by Qualifying Event

Date	Qualified Events Deferred Account	Capital	C&D Costs Recoverable from Direct Billings (Costs Not Yet Billed)	O&M – Not Deferrable	O&M – Deferrable Accumulation	Total O&M	Total
01/04/2009	\$0	\$27,264	\$0	\$36,325	\$588,391	\$624,716	\$651,981
11/05/2009	\$0	\$27,890	\$0	\$30,717	\$499,136	\$532,763	\$560,654
11/16/2009	\$0	\$356,707	\$0	\$56,177	\$1,155,567	\$1,211,744	\$1,568,451
11/18/2009	\$0	\$154,684	\$0	\$60,594	\$937,313	\$997,907	\$1,152,591

YTD Storm Restoration Cost Detail – Through November 18, 2009

Qualified Events Deferred Account	Capital	C&D Costs Recoverable from Direct Billings (Costs Not Yet Billed)	O&M – Not Deferrable	O&M Deferrable Accumulation	Total O&M	Total
\$0	\$566,546	\$0	\$186,723	\$3,180,407	\$3,367,130	\$3,933,676

Qualifying Storm Event
November 18, 2009

Detail Documents

Restoration Cost Detail – Current Event

Detailed List of Distribution Circuits with Outages

Terms, Codes & Definitions Used on Detail Reports

Newsprint Media Coverage

Restoration Cost Detail – Current Event

Puget Sound Energy							
November 18, 2009 Storm Damage Repair Costs							
	Qualifying Events Deferred Account	Capital	C&D Recoverable from Direct Billings (Costs Not Yet Billed)	O&M - Not Deferrable	O&M - Deferrable Accumulation	Total O&M	Total
Labor							
ST		\$ 330			\$ 8,969	\$8,969	\$9,299
OT					\$ 86,273	\$86,273	\$86,273
Total Labor	\$0	\$ 330	\$0	\$0	\$ 95,243	\$95,243	\$95,572
Labor OH		\$ 212			\$ 39,426	\$39,426	\$39,638
Materials		\$ 24,019			\$ 47,789	\$47,789	\$71,808
Contractors		\$ 113,365			\$ 728,959	\$728,959	\$842,324
Other Direct Charges					\$ 9,719	\$9,719	\$9,719
Fleet		\$ 40			\$ 23,816.08	\$23,816	\$23,856
Other Assessments		\$ 16,719		\$ 60,594	(7,639)	\$ 52,954	\$ 69,672.96
Deferred Expenses					\$0	\$0	\$ -
	\$0	\$154,684	\$0	\$60,594	\$ 937,313	\$997,907	\$1,152,591

IEEE-1366 - Detailed List of Distribution Circuits with Outages

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E365769697	11/18/2009	21:22:00	SIL-15	ECD	TO	OCO	105	24,771
E130531091	11/18/2009	16:13:00	KIN-21	ECE	TO	OUP	2	892
E784509483	11/18/2009	16:06:00	MIL-22	ECE	TF	OCO	11	4,719
E302327652	11/18/2009	17:18:00	DIS-12	ECF	TO	OCO	70	41,580
10914745	11/18/2009	17:18:00	DIS-12	ECF	TO	OCO	53	34,556
E734012721	11/18/2009	15:25:00	QUI-25	ECF	TO	CDH	26	8,412
E098758084	11/18/2009	17:50:00	PTR-14	EAA	TO	OFC	316	515,396
E218287193	11/18/2009	22:21:00	KEA-15	ECF	TO	OCO	28	8,148
E202550305	11/18/2009	17:59:00	WLS-16	EAC	SO	OJU	17	15,317
E395760881	11/18/2009	20:07:00	HAP-16	EAA	TO	OCO	1,681	261,685
E045652390	11/18/2009	20:53:00	QUI-25	ECF	TO	OFC	18	5,094
E445574205	11/18/2009	16:41:00	PTR-16	EAA	TO	OFC	350	628,338
E664284836	11/18/2009	21:24:00	BLA-13	EAA	TO	OFC	1	843
E340273089	11/18/2009	21:19:00	FAL-13	EBF	EF	UPC	21	8,247
E370721830	11/18/2009	21:32:00	PLG-13	ECC	TO	OCO	4	2,080
E906674040	11/18/2009	23:23:00	ROE-13	EAA	TF	OFC	1	787
E454881183	11/18/2009	21:34:00	GRI-15	ECC	TO	OCO	178	100,570
E509342183	11/18/2009	21:02:00	PTL-13	ECF	TO	OFC	2	657
E383182675	11/18/2009	20:59:00	LUH-14	ECC	TO	OPO	213	81,490
E931534598	11/18/2009	21:27:00	FRG-24	ECC	TO	OCO	23	13,501
E278702671	11/18/2009	18:20:00	AIR-23	ECC	TO	OCO	14	4,788
E966549588	11/18/2009	15:52:00	ROS-22	EBD	TF	OCO	1,052	305,106
E893815222	11/18/2009	16:00:00	IRO-17	ECF	TO	OCO	11	12,023
E515334564	11/18/2009	18:24:00	PTR-16	EAA	TO	OFC	16	27,104
E828575803	11/18/2009	15:48:00	IRO-17	ECF	TF	OFC	1,326	401,357
10915157	11/18/2009	16:49:00	MIL-23	ECE	TO	OCO	155	37,347
E703766661	11/18/2009	15:50:00	MIL-23	ECE	TO	OCO	72	21,596
E410244602	11/18/2009	22:26:00	HAS-13	ECF	TO	OFC	9	2,574
E549240193	11/18/2009	20:50:00	SWI-16	ECC	TF	OCO	200	162,200
E578186174	11/18/2009	22:08:00	WOB-25	EAA	TO	OFC	6	2,592
E118294799	11/18/2009	19:44:00	LAB-25	EAA	TO	OFC	5	1,680
E323998729	11/18/2009	23:24:00	WOB-26	EAA	TO	OFC	1	516
E151845467	11/18/2009	22:47:00	CAR-16	EAA	TO	OFC	1	473
E951165470	11/18/2009	23:29:00	VWY-15	EAA	TO	OFC	2	422
E501910687	11/18/2009	19:02:00	SLA-16	EAA	TO	OFC	550	210,650
E886406682	11/18/2009	23:37:00	MCK-15	EAA	TO	OFC	72	5,976
E393362745	11/18/2009	16:00:00	BCH-15	EAA	TO	OFC	25	7,225
E907435926	11/18/2009	21:22:00	SCH-16	EAA	TO	OFC	12	7,596
E790668979	11/18/2009	19:43:00	BCH-13	EAA	TO	OFC	29	9,628
E374637656	11/18/2009	21:39:00	BCH-15	EAA	TO	OFC	5	1,580
E401715271	11/18/2009	17:58:00	NUG-26	EAA	TO	OFC	180	88,560
E400017587	11/18/2009	21:38:00	BCH-16	EAA	TO	OFC	12	7,464
E354966974	11/18/2009	20:47:00	CUS-15	EAA	TO	OTR	5	2,615
E076900753	11/18/2009	20:56:00	KEN-12	EAA	TO	OFC	4	1,996

Qualifying Storm Event
November 18, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E905745702	11/18/2009	21:51:00	VIK-25	EAA	SO	OFC	22	5,698
E346093152	11/18/2009	21:07:00	LAU-11	EAA	TF	OTF	3	2,154
E892671639	11/18/2009	20:10:00	HAP-16	EAA	TO	OFC	126	57,330
E536663508	11/18/2009	15:16:00	KIN-24	ECE	TO	OCO	115	44,879
10912075	11/18/2009	15:05:00	SBE-26	EBE	DU	USV	1	1,880
E597646932	11/18/2009	9:29:00	BTN-38	EAC	EF	OCO	1,384	167,464
E794375357	11/18/2009	18:52:00	LGY-16	EAD	TO	OFC	350	126,000
E909102615	11/18/2009	21:35:00	CLV-16	EAD	TO	OFC	50	19,000
E968859507	11/18/2009	21:37:00	CLV-16	EAD	TO	OFC	23	8,786
E819495190	11/18/2009	14:54:00	FLD-12	EAD	TF	OFC	50	19,300
E091850681	11/18/2009	17:24:00	FLD-13	EAD	TO	OCO	40	16,240
E895563498	11/18/2009	14:54:00	FLD-15	EAD	TF	OCO	419	182,684
E192148847	11/18/2009	19:33:00	ALG-15	EAC	TO	OFC	68	30,056
E115761949	11/18/2009	18:07:00	ANA-15	EAC	TO	OPO	12	6,996
E220484201	11/18/2009	17:32:00	PEA-15	EBJ	EF	OCO	18	6,339
E857571103	11/18/2009	20:50:00	WLK-13	ECA	TO	OCO	618	94,808
E326419098	11/18/2009	22:12:00	KAP-13	ECA	TO	OCO	200	34,332
E836235956	11/18/2009	21:08:00	ORT-22	ECA	TO	OCO	22	6,367
E244277386	11/18/2009	18:57:00	SPA-16	ECA	TO	OCO	8	2,664
E231041115	11/18/2009	20:55:00	KAP-16	ECA	TO	OCO	10	3,950
E395192588	11/18/2009	22:35:00	WOO-23	ECA	TO	OCO	24	11,400
E937466488	11/18/2009	13:21:00	CEK-14	ECE	TO	OCO	37	6,466
E977685081	11/18/2009	4:10:00	PMA-12	ECE	TO	OCO	2	922
E478883872	11/18/2009	10:36:00	CHR-23	ECE	EF	UPC	2	1,245
E689473597	11/18/2009	1:34:00	BLU-13	ECC	DU	USV	1	306
E842189569	11/18/2009	7:20:00	CAS-16	EBH	EF	OFU	25	1,800
E973757006	11/18/2009	14:00:00	WOD-15	EBH	EF	OTR	1	120
10915023	11/18/2009	19:47:00	ING-15	EBD	EF	OJU	2,072	12,432
E466332126	11/18/2009	21:31:00	WAY-13	EBD	TO	OTF	6	603
E413455101	11/18/2009	20:59:00	EGT-27	EBE	EF	OFU	22	3,014
E264100062	11/18/2009	20:52:00	OVE-15	EBE	TF	OFU	25	3,500
E053968521	11/18/2009	15:09:00	JUA-13	EBD	EF	OCO	5	813
E130215117	11/18/2009	16:53:00	ING-15	EBD	EF	OJU	690	128,340
E284559470	11/18/2009	18:09:00	PIN-27	EBF	TO	OCO	15	2,892
E021152099	11/18/2009	16:29:00	RED-14	EBD	EF	PMF	8	1,829
E484644098	11/18/2009	7:09:00	INT-17	EBE	EF	UPC	60	16,560
E583691535	11/18/2009	9:00:00	BTR-25	EBE	SO	UPT	138	42,918
E556402217	11/18/2009	16:05:00	HWD-25	EBD	TF	OSV	1	398
E233835859	11/18/2009	8:00:00	BTR-25	EBD	SO	UPT	21	9,135
E082263787	11/18/2009	8:00:00	MED-33	EBE	SO	UHH	12	5,820
E225542035	11/18/2009	19:30:00	FAB-15	EAD	TO	OFU	10	290
E007760915	11/18/2009	14:34:00	BTN-36	EAC	EF	OTF	2	62
E048451024	11/18/2009	17:45:00	BTN-35	EAC	TF	OFU	18	678
E096874502	11/18/2009	6:51:00	ALG-15	EAC	EF	OTF	5	345
E563505142	11/18/2009	16:54:00	LAB-25	EAA	EF	OTH	1	76
E614401396	11/18/2009	15:48:00	HKX-16	EAC	EF	OTF	3	240
E247132189	11/18/2009	8:20:00	NUG-25	EAA	EF	OCO	1	100
E927805306	11/18/2009	22:28:00	SST-17	EAA	TO	OFU	37	3,774
E359920825	11/18/2009	11:36:00	BRI-14	EAA	EF	OCN	9	1,026

Qualifying Storm Event
November 18, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E031853387	11/18/2009	20:09:00	OLD-25	EAA	TO	OCO	200	31,200
E046317566	11/18/2009	19:40:00	SUM-21	EAC	TF	OSV	1	160
E678985985	11/18/2009	7:57:00	VWY-15	EAA	TF	OFC	2	326
E636956612	11/18/2009	14:29:00	LGY-15	EAD	TF	OFU	1	171
E547177251	11/18/2009	11:39:00	SUM-21	EAC	TF	OSV	3	573
E575946419	11/18/2009	18:38:00	NLM-16	EAC	TO	OFU	50	10,350
E063323496	11/18/2009	7:47:00	BCH-13	EAA	TF	OFC	9	2,016
E059642979	11/18/2009	20:30:00	BIG-15	EAC	TO	OFU	150	34,050
E721644551	11/18/2009	18:53:00	CAR-15	EAA	TO	OFU	20	5,720
E555337325	11/18/2009	15:18:00	GBK-13	EAD	TF	OSV	2	604
E144418328	11/18/2009	21:53:00	BRI-17	EAA	TF	OIN	17	5,899
E427488317	11/18/2009	21:07:00	SWA-13	EAD	EF	OSV	37	14,911
E182550457	11/18/2009	18:28:00	BRW-15	EAC	TF	OFU	2	1,584
E117823144	11/18/2009	16:18:00	MST-25	EBI	PO	UTR	1	53
E466141567	11/18/2009	19:59:00	WAB-13	EBI	TF	OSV	1	84
E631520223	11/18/2009	20:38:00	SHD-18	EBI	TF	OCO	1	102
E821668675	11/18/2009	7:12:00	DES-15	EBJ	EF	OFU	7	2,856
10914959	11/18/2009	22:09:00	TLN-0041	ECA	TO	OCO	2,781	25,029
E227516997	11/18/2009	21:14:00	PAT-15	ECC	TO	OCO	5	160
E208253369	11/18/2009	11:48:00	AIR-22	ECC	EF	OPI	24	888
E899511438	11/18/2009	8:06:00	BON-16	ECA	EF	OTF	8	408
E338496579	11/18/2009	23:28:00	TLN-0018	ECC	TF	OCO	4,756	266,336
E248422646	11/18/2009	16:53:00	BLU-13	ECC	TF	OFU	46	3,005
E709377202	11/18/2009	14:21:00	GRV-13	ECA	EF	OFU	13	1,040
E257792660	11/18/2009	17:34:00	CHA-15	ECC	TO	OFU	112	9,632
E431973946	11/18/2009	19:13:00	SWI-17	ECC	TO	OFU	68	6,936
E316017246	11/18/2009	18:14:00	PAT-15	ECC	TF	OCO	1,870	194,480
E637030441	11/18/2009	17:30:00	BAR-17	ECC	EF	OJU	1	122
E641636328	11/18/2009	20:00:00	MKI-17	ECC	TF	OCO	1,991	272,667
E379830761	11/18/2009	23:29:00	GRV-15	ECA	TF	OCO	431	63,788
E253823331	11/18/2009	18:24:00	ELD-25	ECC	TO	OCO	115	17,097
E509842869	11/18/2009	22:39:00	BLU-16	ECC	TO	OFU	76	13,376
E651690694	11/18/2009	22:19:00	SWI-13	ECC	TO	OCO	893	165,205
E492336292	11/18/2009	19:54:00	FRG-25	ECC	TO	OCO	1,350	265,950
E869301334	11/18/2009	22:27:00	DEC-13	ECC	TO	OCO	507	109,005
E550342784	11/18/2009	19:44:00	LAC-13	ECC	TF	OCO	3,247	717,587
E978288919	11/18/2009	22:38:00	RAI-13	ECC	TF	OCO	1,739	407,577
E393041370	11/18/2009	18:46:00	BLU-13	ECC	TO	OCO	313	76,998
E429283639	11/18/2009	23:49:00	TAN-16	ECC	TO	OFU	1	266
E983955648	11/18/2009	23:43:00	PAT-13	ECC	TF	OCO	1,217	328,590
E813933237	11/18/2009	19:01:00	ROC-25	ECC	TF	OFU	47	13,583
E503985726	11/18/2009	23:20:00	TLN-0018	ECC	TF	OCO	10,806	3,505,252
E821883553	11/18/2009	23:30:00	BLU-13	ECC	TO	OCO	141	47,517
E166062524	11/18/2009	8:00:00	HOL-15	ECA	SO	OTF	31	12,803
E257281004	11/18/2009	20:27:00	LON-23	ECC	EF	OTF	4	2,124
E834696148	11/18/2009	20:24:00	LAC-15	ECC	TO	OTF	23	13,984
E896234437	11/18/2009	23:10:00	CHA-13	ECC	TO	OFU	12	7,908
E325116845	11/18/2009	21:07:00	HAS-15	ECF	TO	OCO	300	7,465
E797652150	11/18/2009	21:49:00	HAS-15	ECF	TF	OCO	3	108

Qualifying Storm Event
November 18, 2009

Notification	Date	Time	Circuit	Area	Cause	Equipment	Cust Outs	Cust Mins
E042077494	11/18/2009	17:52:00	KIN-22	ECE	EF	OTF	2	85
E647655692	11/18/2009	14:49:00	MIL-23	ECE	TO	OCO	318	15,142
E538111093	11/18/2009	16:09:00	KIN-22	ECE	TF	OSV	2	134
E595940708	11/18/2009	13:34:00	RPT-22	ECD	TO	OCO	79	5,991
E021064501	11/18/2009	17:31:00	DIS-13	ECF	TO	OCO	104	10,192
E382000665	11/18/2009	15:52:00	PGA-13	ECE	TO	OCO	3	513
10911983	11/18/2009	10:29:00	SIN-22	ECD	EF	OJU	1	209

Terms, Codes and Definitions Used on Detail Reports

Notification	[Notification Number] A number assigned by SAP, identifying the outage record
Date	The date of the outage
Time	The time of the outage
Circuit	[Reference Circuit] The circuit identifier for the affected circuit
F/LOC	[Functional Location] The grid number where the outage occurred. If the grid number is not available, the Reference Circuit identifier occupies this field
EQT NBR	[Equipment Number] A number used to tie the equipment involved in the outage to the related information in SAP. This number does not represent the physical number of the equipment

Area	[Maintenance Planner Group] A code representing the energy, region and service center	
	EAA – Bellingham	EBJ – South King
	EAB – Lynden	EBK – Southwest King
	EAC – Skagit	EBL – Vashon
	EAD – Whidbey	ECA – Puyallup
	EBD – Redmond	ECC – Olympia
	EBE – Factoria	ECD – Port Orchard
	EBF – Snoqualmie	ECE – Poulsbo
	EBI – Enumclaw	ECF – Port Townsend

Cause	Cause of Outage	
	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
	SO – Scheduled Outage	UN – Unknown

Equipment	Affected by, or involved in the outage	
	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	

Codes, Definitions – Continued

CUST OUT	[Customer Out] The number of customers without power for any given outage record
CUST MIN	[Customer Minutes] The total number of minutes customers were without power for any given record
CODE	[Storm Code] An event descriptor
	NON – Non Storm / Normal Conditions
	WTH – Weather Related (eg: wind storm, showers, etc)
	MAJ – Major event

Media Coverage



Wednesday, November 18, 2009

Storm blows in, twice

WHATCOM — In repeat performances Sunday and Monday nights, stormy weather pounded the Pacific Northwest, although north Whatcom experienced lesser effects than other areas.

Winds rose to between 50 and 60 miles per hour each night, with a lull of quiet during the day Monday.

The second version was worse than the first, said Sgt. Larry Flynn of the Whatcom County Sheriff's Office. He lost count between 20 and 30 of reports of trees or power lines down during the night Monday to Tuesday, he said.

At first, no major power or phone outages were reported in the north county, although there was about a 10-second loss of power in Lynden at about 10:30 p.m. Monday. Then, for nearly an hour Tuesday morning, downtown and western Lynden were out of power.

A Puget Sound Energy spokesperson said the cause was tree limbs in a power line that needed to be repaired.

Problems were worst overnight Sunday especially along Lake Whatcom Boulevard, Flynn said.

The National Weather Service at first called for a flood watch on the Nooksack River, but that was later cancelled and the river was cresting below flood stage Tuesday.

A warm front brought light to moderate rainfall to western Washington Sunday. A new frontal system then developed first over the Olympics and reached the north Cascades with heavier rain Monday afternoon.

The double whammy storm event could be considered the beginning of the fall/winter storm season, said Bellingham Fire Department chief Bill Boyd, and he offered these safety tips for winter storm readiness:

- Prepare now to be without power. Make sure you have food and a battery-operated radio.
- Call 9-1-1 only for life- or property-threatening emergencies. Non-emergency calls clog emergency lines.
- Call Puget Sound Energy directly at 1-888-225-5773 to report power related problems, including downed power lines that are not threatening life or property. Be patient; during a significant storm, power and tree crews will likely be delayed.
- Stay away from any downed utility lines. Consider all downed lines to be live power lines. Do not touch any object that may be in contact with downed lines.
- Use open flame candles only with extreme caution if being used to provide light during a power outage. Each year, the Bellingham Fire Department responds to devastating house fires started by unattended candles and/or candles burning next to combustible materials.

Qualifying Storm Event
November 18, 2009

- Use extreme caution in trying to perform repair work outdoors during a storm. You run the risk of being struck by flying materials, including branches, trees, fencing and other loose objects.
- Understand that your home cordless phone may not work if the power is off. In case of emergency in this situation, you will need to use a regular “old-fashioned” phone, or cell phone to call 911.



Thursday, November 19, 2009

Winds topple trees, knock out power to thousands

[Watch story here.](#)

SEATTLE - Fierce winds and heavy rain pushed through Western Washington overnight Wednesday, leaving thousands without power and a mess for crews to clean-up Thursday morning.

Close to 10,000 Clallum County PUD customers are still without power after a transmission line went down near Port Angeles. Puget Sound Energy is working to restore power to about 2,000 customers in Thurston County.

Seattle City Light reports about 160 customers without power in Shoreline, Queen Anne and South Seattle.

In the Shoreline area, a half a dozen crews were working to clear up mangled power lines after gusty winds toppled a large tree on Meridian Avenue near 203rd Wednesday evening. An 82-year-old woman driving a Toyota Camry narrowly escaped with her life.

"The high-tension wires did break the fall of the tree, but it did collide with the passenger side of the vehicle," says Sgt. Chad Devore with Shoreline Police.

Fortunately, the only thing damaged besides the power lines and the woman's car were her nerves. About 200 customers in the Shoreline area lost electricity; power has been restored to about half of those customers.

A tree that fell in the early morning darkness west of Longview not only caused a power outage but also led to a log truck crash that blocked both lanes of an area road for about four hours.

Cowlitz Public Utility District spokesman Dave Andrew said the tree took down power lines at 2:40 a.m. Wednesday, interrupting electric service to nearly 1,500 customers for about three hours.

A log truck crashed into the fallen tree, blocking both lanes of the highway for about four hours before the road was cleared at about 6:30 a.m.

The Washington State Patrol tells The Daily News of Longview that the truck driver was unhurt.

Port Townsend-Keystone ferry route canceled

Commuters who take the Port Townsend-Keystone ferry route may need to make a change of plans. Starting at 3:45 p.m. Thursday, sailings on the Port Townsend-Keystone route are canceled because of high winds and heavy seas.

The Department of Transportation says alternate routes will be through the Edmonds-Kingston and Mukilteo-Clinton runs.



Wednesday, November 18, 2009

Power companies prepare for stormy weather

[Watch story here.](#)

And with all that, you wouldn't be surprised to hear there are power outages. **Puget Sound Energy** reports they are aware of scattered outages in King, Kitsap, and Island counties. Today people were preparing in anticipation of the expected windstorm. Here's Tricia Manning-Smith. Reporter: "Arborists are bracing for sleep deprivation. Windstorm expectations have them preparing for potentially all-nighters. You never know what's going to come, and when it comes you have eve got to be there right away.

The Olympian

Friday, November 20, 2009

Weather likely to let up a little

Storms: It's expected to be bad, but not as bad

By JOHN DODGE

Renewed heavy rains and strong damaging winds were expected to blow through South Sound before relenting this morning, the National Weather Service predicted Thursday night.

It would mark the fourth in a series of powerful storms to sweep into Western Washington this week, with projected winds of 25 to 35 miles per hour and gusts up to 50 mph, according to the weather service.

Another breezy and wet weather system, but generally weaker and with colder air, is expected to hit the region this afternoon.

The likelihood of power outages from falling limbs and trees, landslides and river flooding remains high.

"The soils are saturated from all the rain, and the trees are stressed," said National Weather Service meteorologist Dennis D'Amico. "It doesn't take too much to knock them down."

The gusty windstorm that blew through South Sound on Wednesday night knocked out power to about 2,000 residents in Thurston County, Puget Sound Energy officials said.

Outages were reported Wednesday night in west Olympia, Lacey and East Olympia, among other areas. Power was restored by Thursday afternoon, and crews were on standby to respond to another round of outages Thursday night, Puget Sound Energy spokeswoman Abigail Elliott said.

Numerous traffic signals were darkened during the Wednesday night outage. But they didn't lead to an increased number of crashes, a police dispatcher said Thursday.

A wind gust of 66 miles per hour was recorded by a weather station in the Lake Lawrence area about 6:30 p.m. Wednesday, D'Amico said. Winds of up to 37 mph were recorded overnight at the Olympia Regional Airport, he said.

It was enough to send limbs flying and trees crashing down around South Sound.



driving rain Thursday morning as wet and wild weather continued to pound the South Sound region. More storms were on their way, but this afternoon's should be weaker.

Qualifying Storm Event
November 18, 2009

Rainfall for November stood at 6.15 inches Wednesday, nearly 50 percent more than had been recorded at this time last year.

Meanwhile, a flood watch is in effect for the Chehalis River in Thurston County. The river could reach flood stage and experience minor flooding in the south county area by tonight, he said.

THE BELLINGHAM HERALD

Friday, November 20, 2009

Windstorm batters Whatcom County again

By HANNAH BOSTWICK

BELLINGHAM - The windstorm that whipped through Whatcom County Wednesday night, Nov. 18, left power outages, road closures and other debris in its wake, but the weekend looks to offer relief.

Wind gusts up to 60 mph were forecast again for Thursday night, but the south winds should ease to about 15 mph Friday and Saturday, with showers likely and daytime temperatures in the high 40s through Monday.

Downed power lines caused about 200 Puget Sound Energy customers to lose electricity for significant periods of time on Wednesday night, said Abigail Elliott, PSE spokeswoman. The biggest outage occurred near Marshall Hill Road, where about 130 customers lost power from 6 p.m. Wednesday to 3 a.m. Thursday, she said.

The two smaller outages occurred near Point Whitehorn west of Ferndale. At Koehn Road and Whitehorn Way, roughly 40 customers lost power from 6 p.m. Wednesday to just after 1 a.m. Thursday. At Gulf Road and Henry Road, about 30 customers lost power from 4 to 9 p.m. Wednesday.

Customers' power was fully restored by noon Thursday, Elliott said.

Bellingham Public Works crews worked Wednesday night into Thursday morning removing fallen branches and debris from roads, said Chad Bedlington, maintenance superintendent.

Some larger trees came down near Western Washington University Wednesday night. Campus officials were most concerned about trees behind College Hall and ones blocking the Fairhaven College access road and the service road for Wade King Student Recreation Center.

Temporary access through debris in those areas was cleared late Wednesday, with more cleanup scheduled for Thursday, said Tim Wynn, campus director of facilities management.

On Lummi Island, Beach Elementary School was closed Thursday because of a power outage, said Tammy Bengen, spokeswoman for Ferndale School District. Power has been restored to the school and it should be open Friday, provided the power doesn't go out again, she said.

High winds also damaged the Lummi Island ferry dock, resulting in limited hours of operation and weight restrictions.

As of Thursday morning, some parts of Bellingham still had fallen trees or other debris partially blocking parts of a roadway, but no roads were closed, Bedlington said.

Elsewhere in the county, more than 20 roads were reported closed or blocked as of 1:30 p.m. Thursday, according to Whatcom County Public Works. Roads not blocked had shoulder or lane erosion, or water or debris on the roadway, county officials reported.

Closed roads included Bylsma Road, Marine Drive at Ferndale Road, and Hemmi Road east of Hannegan Road. Blocked roads included McLeod Road, Emerald Lake Way and Flynn Road.

In downtown Bellingham, the strong winds broke an inner metal arm of the rotating sculpture next to the Whatcom Transportation Authority terminal. The artist, Tony Howe, plans to remove the large globe



Qualifying Storm Event
November 18, 2009

from the sculpture's outer ring and store it at the agency's shop while he repairs the broken piece at his studio on Orcas Island.

The sculpture might be repaired and re-installed in perhaps a week or two, said WTA spokeswoman Maureen McCarthy. The warranty on the sculpture is still in force, so the artist will cover the cost of repairs, she said.



Thursday, November 19, 2009

Still more wind, rain, snow to come

[Watch story here.](#)

SEATTLE -- Power crews are standing at the ready for the possibility of more trees toppling over in the wind, knocking down power lines Thursday night and into Friday.

KING 5 Chief Meteorologist Jeff Renner says winds will increase again Thursday, but shouldn't be as bad as Wednesday night. He expects 15-25 mph sustained winds over Puget Sound, and possibly 20-35 mph from Everett north. Higher gusts are possible.

He says, winds should begin easing before midnight, but rain is expected to pick up overnight, but changing to showers by the morning hours.

More snow in the mountains above 4,000 feet. On Friday afternoon, 5 to 12 more inches of snow could fall in the mountains.

As of Thursday night, Seattle was the only area reporting outages, with some 200 customers in the dark. Meanwhile, Puget Sound Energy crews are resting up for weather predicted Thursday evening and Friday. Additional crews are being brought in anticipation of outages.

Almost 9,000 Grays Harbor PUD customers were without power Thursday evening, including Ocean Shores, Oyhut, Ocean City, Copalis Beach, Pacific Beach, Copalis Crossing, Moclips, Taholah, and Bernard Creek.

As of Thursday afternoon, flood warnings remained in effect for the Bogachiel, Skokomish and Satsop rivers. Flood watches are in effect until Saturday morning for Grays Harbor, Clallam, Jefferson, Lewis and Thurston counties.

A winter storm warning for heavy snow is in effect for the Olympic Mountains and the west slopes of the Cascades. Renner expects snow in the Cascades to rise to 4,000 to 5,000 feet Friday before falling back to 2,000 in the afternoon with heavy snow showers.

Interstate 90 at Snoqualmie Pass was closed Thursday afternoon for avalanche control. Washington State Department of Transportation crews say the early snow meant dealing with at least five spin outs along the highway. Conditions were bad enough that traction tires or chains were required for more than half the day.

"Carrying 50,000 pounds, that's a lot of weight to pull and it's a lot of weight pushing on you when you're going downhill, so the chains really do make a big difference," said truck driver Gary Pierce.

Traction tires are also required Stevens Pass. Traction tires are advised at White and Blewett passes.

For Jason Perkizas and his season ski pass, it's great news that the season's starting in mid-November.

"Got some new skis this year, so wanted to get up as soon as possible," said Perkizas.

Thursday, November 19, 2009

Long stretch of breezy, wet seen for state

SEATTLE — As utilities completed repairs today to the latest wind-caused power outages in Western Washington, forecasters said the breezy wet weather would continue with snow in the mountains and parts of Eastern Washington.

Wednesday's storm left power crews busy in parts of Grays Harbor County, the San Juan Islands, Snohomish and Thurston counties and the city of Seattle.

The National Weather Service said the series of Pacific storms would continue blowing into the state into next week, with a possible lull on Sunday.

After heavy snow in the Cascades, the Transportation Department required traction tires this morning on Snoqualmie, Stevens and White passes.

Forecasters warned of flooding on the Bogachiel and Satsop rivers.

National Weather Service forecaster Jay Albrecht said Washington's north coast has seen the strongest winds Wednesday night, with gusts just off Olympic National Park measured at 66 mph and a peak gust of 81 mph. In the northwest interior, Cherry Point near Ferndale had a 64 mph gust and Friday Harbor in the San Juans got a 58 mph blast.

As of 10 p.m. Wednesday, KING-TV reported some 8,000 Clallam County customers without power while another 4,300 lost power in Grays Harbor County and 3,000 Puget Sound Energy customers lost electricity.

Albrecht said rain was falling at the rate of a half-inch an hour in some areas on the coast and on the Olympic Peninsula.