



2010 Qualifying Storm Events

December 17, 2010

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 - 2010	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 December 17, 2010.....	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.....	14
Media Coverage	15

Event Description

Date of event

December 17, 2010

Event Type

Windstorm.

Service Areas Affected

This weather event affected King, Pierce, Thurston, Kitsap and Jefferson Counties.

Number of Customers Affected

Approximately 122,000 customers were without power over the course of this outage event.

Summary of System Impacts

Total Number of Outages	468
Distribution Circuits Totally Out	31
Distribution Circuits Partially Out	437

Transmission Circuits Affected	4
Substations Totally Off-line	8

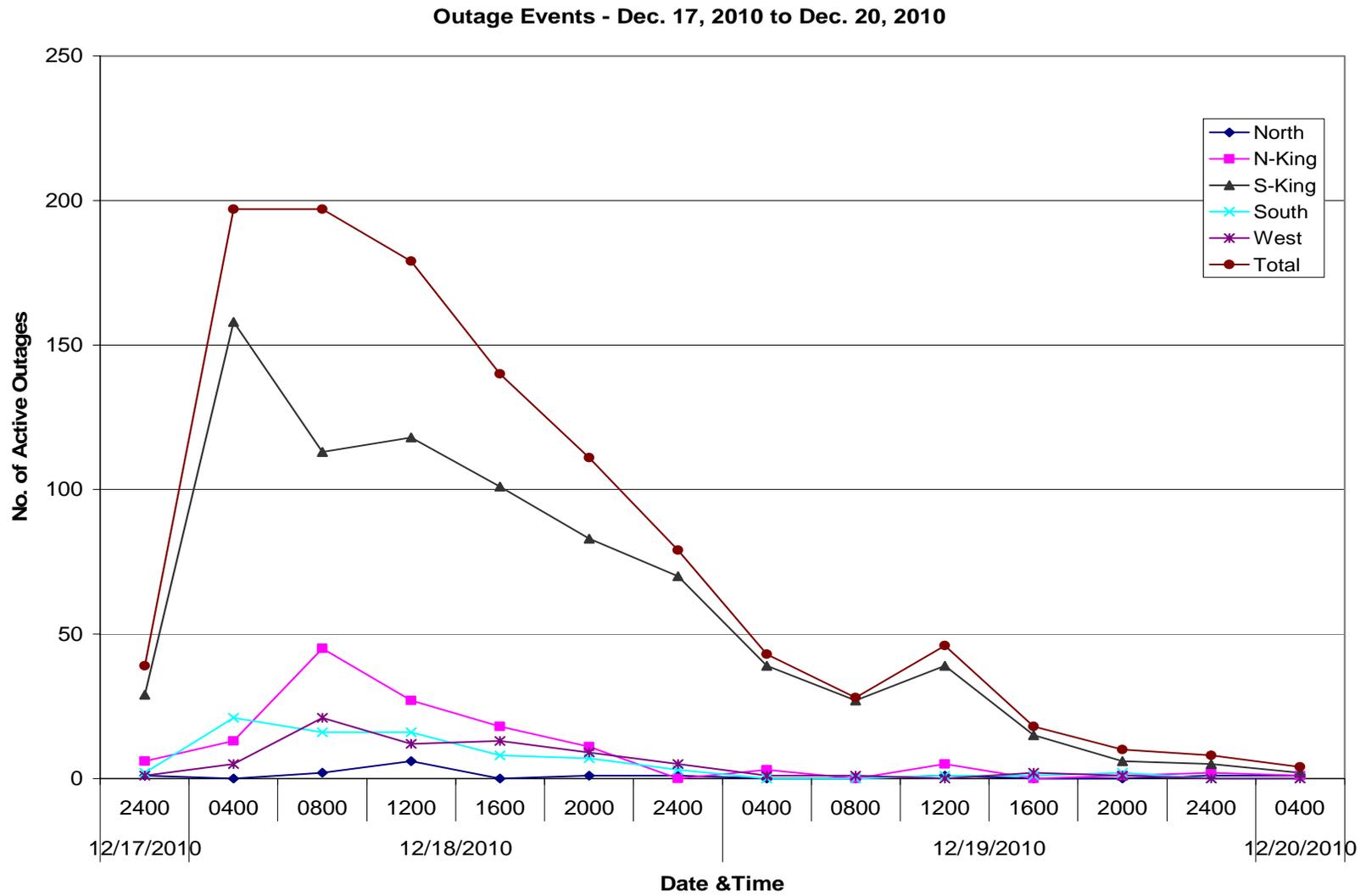
Mobilization Summary

Operating Bases

Base	Date Opened	Time Opened	Date Closed	Time Closed
North King	12/18/2010	03:45	12/18/2010	20:00
South King	12/17/2010	22:45	12/18/2010	22:00
Pierce	12/18/2010	03:30	12/18/2010	20:00
Thurston	12/18/2010	05:15	12/18/2010	13:00
Kitsap	12/18/2010	07:45	12/18/2010	22:00
Jefferson	12/18/2010	07:45	12/18/2010	22:00
Vashon	12/18/2010	07:45	12/18/2010	22:00

Emergency Operations Center

EOC	Date Opened	Time Opened	Date Closed	Time Closed
	12/18/2010	05:30	12/19/2010	08:30



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 2010: 7.21 Minutes

Qualified Events - 2010

Current Event – Calculation Detail

Event Date	Total Customer Minutes	Average Customer Count	Daily SAIDI – Customer Minutes /Customer Count
12/17/2010	39,072,297	1,085,427	36.00

Cumulative list of events that have qualified

Date(s)	T-med Score	O&M – Deferrable Accumulation
01/17/2010	29.25	\$862,417
03/16/2010	10.61	\$481,430
05/03/2010	13.55	\$721,305
11/15/2010	101.18	\$5,016,951
11/22/2010	124.14	\$917,897
12/14/2010	19.86	\$0
12/17/2010	36.00	\$0

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
01/17/2010	\$0	\$50,785	\$0	\$79,959	\$862,417	\$942,376	\$993,161
03/16/2010	\$0	\$110,581	\$0	\$43,339	\$481,430	\$524,769	\$635,349
05/03/2010	\$0	\$154,017	\$0	\$44,568	\$721,305	\$765,872	\$919,889
11/15/2010	\$0	\$578,471	\$0	\$261,686	\$5,016,951	\$5,278,638	\$5,857,108
11/22/2010	\$7,837,044	\$932,518	\$0	\$342,190	\$917,897	\$1,260,087	\$10,029,649
12/14/2010	\$1,542,934	\$462,136	\$0	\$100,375	\$0	\$100,375	\$2,105,445
12/17/2010	\$4,436,826	\$422,707	\$0	\$183,635	\$0	\$183,635	\$5,043,167

YTD Storm Restoration Cost Detail – Through December 17, 2010

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
\$13,816,804	\$2,711,214	\$0	\$1,055,751	\$8,000,000	\$9,055,751	\$25,583,769

Qualifying Storm Event
December 17, 2010

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 December 17, 2010 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		\$ 1,934		\$ 63,817	\$ 8,985	\$ 72,802	\$ 74,736
OT		\$ 2,218			\$ 340,441	\$ 340,441	\$ 342,659
Total Labor	\$ -	\$ 4,152	\$ -	\$ 63,817	\$ 349,425	\$ 413,242	\$ 417,395
Labor OH		\$ 2,385		\$ 60,231	\$ 149,794	\$ 210,026	\$ 212,411
Materials		\$ 84,947		\$ 26,648	\$ 170,941	\$ 197,589	\$ 282,536
Contractors		\$ 267,765		\$ 2,615	\$ 3,698,134	\$ 3,700,748	\$3,968,513
Other Direct Charges		\$ 100			\$ 20,815	\$ 20,815	\$ 20,915
Fleet		\$ 393			\$ 47,726	\$ 47,726	\$ 48,119
Other Assessments		\$ 62,964		\$ 30,323	\$ (10)	\$ 30,314	\$ 93,278
Deferred Expenses	\$ 4,436,826				\$ (4,436,826)	\$ (4,436,826)	\$ -
	\$ 4,436,826	\$ 422,707	\$ -	\$ 183,635	\$ -	\$ 183,635	\$5,043,167

IEEE-1366 - Detailed List of Distribution Circuits with Outages

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST. OUT	CUST.MIN
E487386496	12/18/2010	12:03:03 AM	MIR-15	EBF	TV	OCO	47	34,778
E442398859	12/18/2010	12:05:42 AM	ROL-13	EBJ	TV	OFC	241	378,924
E381786444	12/18/2010	12:08:59 AM	HOB-17	EBI	TV	OCO	20	38,434
E610414591	12/18/2010	12:14:36 AM	PEA-15	EBJ	TV	OTR	104	152,298
10991127	12/18/2010	12:16:00 AM	TLN-0218	EBI	TV	OCO	1,057	2,114
E354343455	12/18/2010	12:16:51 AM	LMD-16	EBJ	TV	OFC	196	180,007
E064815723	12/18/2010	12:18:00 AM	TLN-0042	ECA	TV	OPO	1,528	766,820
E697912249	12/18/2010	12:19:44 AM	CUM-13	EBI	TV	OCO	475	345,452
E776619262	12/18/2010	12:23:46 AM	DGR-15	ECA	TV	CDH	634	493,400
E985490358	12/18/2010	12:24:00 AM	BUC-15	ECA	TV	OCO	768	415,587
E397041256	12/18/2010	12:31:42 AM	MHT-15	EBJ	TV	OFC	7	3,460
E644452121	12/18/2010	12:35:30 AM	ENU-18	EBI	TV	OTR	295	365,063
E498555125	12/18/2010	12:37:35 AM	DES-15	EBJ	TV	OCO	100	92,242
E615198438	12/18/2010	12:38:08 AM	BUC-25	ECA	TV	OFU	58	43,144
E496029703	12/18/2010	12:45:29 AM	LON-23	ECC	TV	OCO	154	61,064
E941312564	12/18/2010	12:46:39 AM	LMC-25	EBE	TV	OPO	450	180,608
E922781898	12/18/2010	12:57:30 AM	RHO-15	ECA	TV	OCO	1,870	292,375
E751745241	12/18/2010	1:04:08 AM	BON-17	ECA	TV	OCO	1,554	720,603
E051896205	12/18/2010	1:17:15 AM	ROL-16	EBJ	TV	OFU	137	127,787
E583143475	12/18/2010	1:23:46 AM	FRA-12	ECD	UN	OCO	1,085	124,034
E694040526	12/18/2010	1:26:24 AM	FCR-12	EBI	TV	OTR	55	76,813
E372888177	12/18/2010	1:30:10 AM	BEL-16	EBJ	TV	OCO	66	78,859
E717610638	12/18/2010	1:30:13 AM	FRA-13	ECD	TV	OCO	13	3,506
E713276586	12/18/2010	1:30:44 AM	PAN-15	EBJ	TV	OCO	1,622	550,291
E660367228	12/18/2010	1:35:24 AM	HOB-16	EBI	TV	OSW	341	621,848
E673296130	12/18/2010	1:36:30 AM	VAS-23	EBL	TO	OCO	1,716	103,818
E790378197	12/18/2010	1:42:43 AM	SWI-17	ECC	TV	OCO	84	31,020
E036797716	12/18/2010	1:50:51 AM	ORC-13	EBJ	TV	OFU	827	758,483
E832185173	12/18/2010	1:56:39 AM	EDG-16	ECA	TV	OCO	743	747,718
E668299356	12/18/2010	1:57:17 AM	EDG-12	ECA	TV	OCO	448	648,577
E731923743	12/18/2010	1:58:41 AM	GLC-11	EBJ	TV	OCO	5	4,032
E460854500	12/18/2010	1:59:39 AM	EGT-12	EBE	TV	OCO	66	30,713
E486705590	12/18/2010	1:59:50 AM	WCA-16	EBJ	TV	OFC	1,224	465,225
E270646734	12/18/2010	2:00:31 AM	BEL-26	EBJ	TV	OCO	94	78,911
E022995365	12/18/2010	2:00:59 AM	KCR-17	EBJ	TV	OTR	30	54,721
E656120140	12/18/2010	2:01:01 AM	EVA-27	EBJ	TV	OFC	216	187,484
E486104561	12/18/2010	2:05:46 AM	BDI-13	EBI	TV	OPO	235	243,515
E243089933	12/18/2010	2:06:33 AM	MST-25	EBI	TV	OFU	506	455,628
E509119178	12/18/2010	2:06:59 AM	SOO-25	EBI	TV	OCO	266	245,256
E617773776	12/18/2010	2:13:06 AM	WIS-13	EBF	TV	OCO	37	20,864
E740236048	12/18/2010	2:14:00 AM	LAT-13	EBJ	TV	OCO	11,681	70,086
E896400952	12/18/2010	2:15:00 AM	PEA-17	EBJ	TV	OCO	1,487	1,003,725
E747913672	12/18/2010	2:16:39 AM	ELL-16	EBI	TF	OCO	1,300	476,255
E763657077	12/18/2010	2:17:13 AM	ZEN-26	EBJ	TV	OCO	29	14,668
E043117307	12/18/2010	2:19:02 AM	ZEN-23	EBJ	TV	OFC	11	6,897

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December 17, 2010

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST. OUT	CUST.MIN
E564014825	12/18/2010	2:20:23 AM	VIC-16	EBJ	TV	OCO	27	21,050
E050089900	12/18/2010	2:20:41 AM	GRA-25	EBJ	TV	OCO	2,343	495,115
E411589623	12/18/2010	2:22:03 AM	GLC-15	EBJ	TV	OFC	76	84,204
E758476531	12/18/2010	2:22:17 AM	NNO-12	EBJ	TV	OTF	57	71,747
E851504903	12/18/2010	2:23:00 AM	LMC-25	EBF	TV	OPO	709	763,593
E961687040	12/18/2010	2:26:19 AM	ELL-16	EBJ	TV	OFC	8	2,861
E227417190	12/18/2010	2:26:45 AM	LMD-12	EBJ	TV	OFU	5	4,366
E752459295	12/18/2010	2:27:45 AM	SOO-26	EBI	TV	OCO	24	18,774
E685427496	12/18/2010	2:28:24 AM	MHT-01	EBJ	TV	OFC	3,704	2,156,413
E305057221	12/18/2010	2:30:00 AM	TLN-0094	EBJ	TV	OCO	13,640	61,874
E018809154	12/18/2010	2:31:39 AM	LAT-13	EBJ	TV	OFC	302	473,038
E403952432	12/18/2010	2:32:33 AM	SEQ-22	EBI	TV	OFU	43	37,515
E161456155	12/18/2010	2:33:13 AM	MVW-15	EBJ	TV	OFC	121	138,519
E664163687	12/18/2010	2:33:27 AM	SHD-16	EBI	TV	OCO	346	638,906
E740647707	12/18/2010	2:33:32 AM	MVW-16	EBJ	TV	OFC	131	214,901
E082342423	12/18/2010	2:35:00 AM	MVW-13	EBJ	TV	OFC	2,041	1,715,295
E404524869	12/18/2010	2:39:21 AM	SWE-23	EBJ	TV	OCO	7	4,310
E644946403	12/18/2010	2:42:00 AM	BEL-13	EBJ	TV	OCO	1,538	407,570
E955137028	12/18/2010	2:42:31 AM	SNQ-17	EBF	TV	OCO	9	8,122
E920730035	12/18/2010	2:58:53 AM	MAN-15	ECD	TV	OFU	54	8,352
E132816065	12/18/2010	3:00:20 AM	LWS-15	EBI	TV	OCO	9	15,063
E943953086	12/18/2010	3:06:00 AM	SHD-17	EBI	TV	OSV	895	689,150
E068418490	12/18/2010	3:06:03 AM	VAS-22	EBL	TV	OFU	197	61,530
E667512601	12/18/2010	3:11:00 AM	PIP-23	EBI	TV	OHR	969	324,615
E955975495	12/18/2010	3:12:00 AM	SHD-18	EBI	TV	OPO	1,473	1,487,730
E831939983	12/18/2010	3:16:16 AM	VAS-12	EBL	TV	OCO	71	80,495
E785459957	12/18/2010	3:27:15 AM	MST-27	EBI	TV	OCO	928	334,776
E939633982	12/18/2010	3:32:31 AM	VAS-12	EBL	TV	OCO	20	21,250
10987531	12/18/2010	3:34:00 AM	FRA-13	ECD	TO	OCO	1,338	38,802
E464347264	12/18/2010	3:39:00 AM	RHO-15	ECA	TF	OCO	1,870	714,340
E677450859	12/18/2010	3:39:44 AM	MAN-13	ECD	TV	OFC	5	2,406
E346943615	12/18/2010	3:40:00 AM	TLN-0224	ECC	TV	OCO	8,807	1,958,317
E587230108	12/18/2010	3:44:58 AM	PHA-13	EBE	TV	OCO	62	9,313
10990694	12/18/2010	3:49:00 AM	TLN-0127	ECA	TV	OCO	4,988	69,832
E366869260	12/18/2010	3:52:17 AM	MVW-17	EBJ	TV	OFC	1,472	2,762,527
E700482988	12/18/2010	3:53:00 AM	LAT-16	EBJ	TV	OFC	1,496	1,124,992
E048810497	12/18/2010	3:53:10 AM	LAT-14	EBJ	TV	OPO	306	231,591
E133589032	12/18/2010	3:54:48 AM	RDO-12	EBJ	TV	OCO	23	9,780
E000771014	12/18/2010	3:56:10 AM	SHD-15	EBI	TV	OCO	434	601,018
E208198079	12/18/2010	3:56:58 AM	BON-13	ECA	TV	OCO	46	25,824
E542668094	12/18/2010	3:58:59 AM	STA-17	EBJ	TV	OCO	1,053	576,009
E575339624	12/18/2010	4:05:24 AM	ROL-17	EBJ	TV	OSV	15	18,819
E641877174	12/18/2010	4:09:00 AM	KCR-16	EBJ	TV	OFC	1,401	735,525
E523656999	12/18/2010	4:09:09 AM	HAZ-15	EBE	TV	OFU	8	5,055
E581007774	12/18/2010	4:14:00 AM	STA-13	EBJ	TV	OSW	1,079	424,047
E263072049	12/18/2010	4:15:34 AM	SHD-18	EBJ	TV	OSW	8	9,955
E829348335	12/18/2010	4:17:51 AM	ORC-17	EBJ	TV	OFC	22	17,427
E860192000	12/18/2010	4:18:17 AM	SOO-27	EBJ	TV	OFC	47	75,281
E448010163	12/18/2010	4:18:29 AM	STA-26	EBJ	TV	OCO	932	497,238

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December 17, 2010

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST. OUT	CUST.MIN
E741798479	12/18/2010	4:19:21 AM	LEA-15	EBI	TV	OCO	237	288,109
E151102697	12/18/2010	4:22:02 AM	NNO-15	EBJ	TV	OFC	171	152,697
E946586765	12/18/2010	4:22:12 AM	SBE-26	EBE	TV	OCO	23	11,052
E627623999	12/18/2010	4:29:53 AM	DGR-13	ECA	TF	OFC	1,033	419,519
E521397895	12/18/2010	4:31:18 AM	COL-26	EBE	TV	OCO	10	3,837
E045511327	12/18/2010	4:33:04 AM	MAP-15	EBF	TV	OCO	80	81,995
E512269271	12/18/2010	4:38:26 AM	NOB-24	EBE	TV	OCO	83	49,604
10987577	12/18/2010	4:41:00 AM	MAN-15	ECD	TV	CDH	179	111,338
E100401093	12/18/2010	4:41:35 AM	RPT-15	ECD	TV	OFU	200	41,770
E816140718	12/18/2010	4:43:42 AM	STW-15	ECA	TV	OFU	11	2,203
E342372265	12/18/2010	4:45:50 AM	LMC-23	EBF	TV	OCO	44	20,907
E452663999	12/18/2010	4:52:25 AM	MIR-17	EBF	TF	OCO	589	222,082
E672525097	12/18/2010	4:55:22 AM	POU-15	ECE	EO	UPT	9	2,436
E304645991	12/18/2010	5:01:00 AM	PIP-26	EBI	TV	OCO	1,934	761,996
E469335876	12/18/2010	5:02:35 AM	NNO-13	EBJ	TV	OFC	60	12,445
E736268937	12/18/2010	5:07:33 AM	PIP-25	EBI	TV	OTF	16	15,815
E528349626	12/18/2010	5:24:00 AM	SEQ-17	EBJ	TV	OFU	3	2,376
E567503754	12/18/2010	5:34:19 AM	FAL-13	EBF	TV	GAR	13	3,961
E406144388	12/18/2010	5:47:00 AM	BRS-24	EAC	TV	OPO	438	68,328
E674049797	12/18/2010	5:51:25 AM	SIL-15	ECD	TV	OCO	39	4,313
E048754641	12/18/2010	6:09:38 AM	NBE-16	EBF	TV	OCO	39	14,639
E703305328	12/18/2010	6:11:47 AM	CEK-15	ECE	TV	OFU	112	4,271
E344173928	12/18/2010	6:17:50 AM	CEK-14	ECE	TV	OFU	13	9,440
E555024531	12/18/2010	6:18:25 AM	PMA-12	ECE	TV	OPO	852	265,184
E862563487	12/18/2010	6:21:38 AM	PMA-12	ECE	TV	OPO	65	55,144
E781516861	12/18/2010	6:22:56 AM	SIL-13	ECE	TV	OFU	83	11,543
E685536231	12/18/2010	6:24:31 AM	PRE-11	EBE	TV	OCO	114	68,569
E749297278	12/18/2010	6:36:55 AM	CUM-13	EBJ	TV	OCO	1	863
E884043005	12/18/2010	6:39:31 AM	LMC-27	EBF	TV	OCO	26	14,573
E749322857	12/18/2010	6:39:43 AM	FRA-13	ECD	TV	OFU	63	19,170
E372642190	12/18/2010	6:43:00 AM	PRE-14	EBE	TV	OFC	13	9,061
E913197860	12/18/2010	6:46:00 AM	TLN-0122	EBE	TV	OPO	9,797	820,298
E251920084	12/18/2010	6:46:47 AM	PMA-15	ECE	TV	OFU	144	40,639
E476312396	12/18/2010	6:50:24 AM	MIL-23	ECE	TV	OFU	2	1,443
E388261851	12/18/2010	6:51:03 AM	PMA-13	ECE	TV	OCO	12	5,241
E800437724	12/18/2010	6:51:14 AM	VAS-23	EBL	TV	OFU	8	1,182
E227339527	12/18/2010	6:56:13 AM	MAP-16	EBE	TV	OCO	26	20,638
E264686637	12/18/2010	6:57:14 AM	MAP-16	EBF	TV	OTR	25	19,644
E163747522	12/18/2010	7:00:00 AM	CHR-25	ECE	TV	OCO	168	21,683
E912139309	12/18/2010	7:00:04 AM	MST-26	EBI	TV	OSV	12	15,119
E128147121	12/18/2010	7:01:49 AM	PMA-12	ECE	TV	OTR	36	16,135
E332817316	12/18/2010	7:05:49 AM	KIN-21	ECE	TV	OFU	177	30,653
E765721310	12/18/2010	7:06:00 AM	TLN-0122	EBE	TV	OCO	4,372	354,132
E711545238	12/18/2010	7:06:00 AM	TLN-0122	EBE	TV	OCO	2,930	231,470
E263747873	12/18/2010	7:06:22 AM	GLC-14	EBJ	TV	OFU	42	19,893
E423340860	12/18/2010	7:08:09 AM	PTL-16	ECF	TV	OCO	6	2,651
E406168443	12/18/2010	7:13:00 AM	LWS-12	EBI	TV	OPO	1,692	1,046,657
E840906216	12/18/2010	7:21:08 AM	BEL-25	EBJ	TV	OTF	7	7,335
E014634028	12/18/2010	7:21:13 AM	SKE-26	ECE	EF	UPC	4	4,459

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December 17, 2010

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST. OUT	CUST.MIN
E643587419	12/18/2010	7:23:27 AM	PMA-16	ECE	TV	OCO	55	30,445
E046419564	12/18/2010	7:24:34 AM	LWS-12	EBJ	TV	OFC	103	71,630
E584455751	12/18/2010	7:25:14 AM	PIN-26	EBD	TV	OCO	10	3,748
E165009076	12/18/2010	7:26:01 AM	BEL-13	EBJ	TV	OCO	5	1,820
E633206390	12/18/2010	7:27:04 AM	HIG-15	EBE	TV	OCO	152	73,406
E010325741	12/18/2010	7:36:31 AM	RDO-16	EBJ	TV	OFU	147	121,787
E345942458	12/18/2010	8:01:59 AM	BON-15	ECA	TV	OFU	30	9,511
E065158824	12/18/2010	8:02:20 AM	ASB-13	EBJ	TV	OTF	5	3,228
E545399720	12/18/2010	8:05:05 AM	RAI-12	ECC	TV	OCO	36	7,521
E125375332	12/18/2010	8:09:00 AM	NHL-15	EBD	TF	OCO	3,212	215,204
E146073984	12/18/2010	8:14:08 AM	GRA-25	EBJ	TV	OCO	159	126,384
E248170781	12/18/2010	8:22:21 AM	KIN-24	ECE	TV	OCO	12	2,360
E027381359	12/18/2010	8:23:48 AM	HOL-15	ECA	TV	OSV	1	286
E523485755	12/18/2010	8:31:05 AM	MAN-15	ECD	TV	OCO	100	38,892
E483120377	12/18/2010	8:33:04 AM	MIL-16	ECE	TV	OCO	2	846
E285445325	12/18/2010	8:33:23 AM	FWY-12	EBJ	TV	OFC	10	6,966
E539573867	12/18/2010	8:33:44 AM	RAI-14	ECC	TV	OTR	21	6,222
E965962613	12/18/2010	8:40:57 AM	SKY-25	EBD	TV	OCN	4	1,728
E127323740	12/18/2010	8:44:36 AM	TOT-22	EBD	TV	OTF	6	1,112
E320490664	12/18/2010	8:48:29 AM	VAS-12	EBL	TV	OCO	28	26,390
E964679916	12/18/2010	8:49:01 AM	LON-23	ECC	TV	OPO	5	2,530
E421087356	12/18/2010	8:50:18 AM	ENU-17	EBJ	TV	OTF	4	1,701
E507937182	12/18/2010	8:52:24 AM	PTR-16	EAA	EF	OFU	240	37,584
E835261028	12/18/2010	9:14:04 AM	COT-13	EBD	TV	OCO	19	5,413
E034692196	12/18/2010	9:25:29 AM	RPT-15	ECD	TV	OFU	9	941
E423183279	12/18/2010	9:41:40 AM	VAS-22	EBL	TV	OFU	2	197
E714213189	12/18/2010	9:43:48 AM	GLC-13	EBJ	TV	OFU	13	1,745
E662455640	12/18/2010	10:06:43 AM	LON-25	ECC	TV	OCO	3	130
10987543	12/18/2010	10:10:01 AM	BCH-16	EAA	EF	OPO	1	793
10987502	12/18/2010	10:24:00 AM	WIS-13	EBE	TV	OFU	5	80
E782918984	12/18/2010	10:28:31 AM	OSC-25	EBI	TV	OCO	23	11,764
E465811196	12/18/2010	10:37:00 AM	RHO-15	ECA	TV	UTC	50	14,200
E766825142	12/18/2010	10:52:46 AM	OSC-22	EBJ	TV	OFC	1	397
E193328892	12/18/2010	10:53:27 AM	WAU-25	EBJ	TV	OSV	1	1,513
E364799416	12/18/2010	11:16:27 AM	LTA-18	ECA	TV	OPO	18	10,576
E333712629	12/18/2010	11:19:34 AM	DGR-13	ECA	UN	DNO	572	74,036
E036593866	12/18/2010	11:20:46 AM	BON-17	ECA	TV	DNO	6	3,415
E071364712	12/18/2010	11:30:22 AM	TAN-15	ECC	TV	OCO	200	8,327
E973084379	12/18/2010	11:33:59 AM	MIR-13	EBF	TV	OCO	31	4,279
E432068954	12/18/2010	11:55:59 AM	HAZ-12	EBE	TV	OSV	1	119
E504697001	12/18/2010	12:14:48 PM	LAC-17	ECC	TV	OTF	1	67
E857091169	12/18/2010	12:35:27 PM	MIR-15	EBF	TV	OCO	57	16,960
E402533507	12/18/2010	12:36:23 PM	FRA-13	ECD	TV	OFU	9	915
E669125539	12/18/2010	1:12:37 PM	PIK-21	EBF	PO	UHH	1	417
E721524075	12/18/2010	1:15:17 PM	SHD-17	EBJ	TV	OFC	3	2,546
E154922674	12/18/2010	1:20:20 PM	LON-25	ECC	EF	OFU	1	101
E914939825	12/18/2010	1:25:41 PM	SBE-26	EBE	TV	OCO	8	1,235
E802113198	12/18/2010	1:58:01 PM	PEA-17	EBJ	TV	OSV	1	1,149
E181824912	12/18/2010	2:05:01 PM	FWD-16	EBJ	TV	OCO	162	124,737

Qualifying Storm Event
December 17, 2010

NUMBER	DATE	TIME	CKT	MPG	CAZ	EQT	CUST. OUT	CUST.MIN
E057597631	12/18/2010	2:07:58 PM	DGR-15	ECA	TV	DNO	3	498
E782946447	12/18/2010	2:11:41 PM	FWD-17	EBJ	TV	OCO	41	31,296
E653493480	12/18/2010	2:15:36 PM	OSC-23	EBJ	TV	OFC	2	1,409
E605686121	12/18/2010	2:17:44 PM	RPT-15	ECD	TV	OTF	13	1,667
10990700	12/18/2010	2:31:00 PM	BON-13	ECA	TV	OCO	119	7,497
E223482911	12/18/2010	2:54:18 PM	RAI-12	ECC	EO	UTC	1	79
E792472721	12/18/2010	3:12:15 PM	HAZ-15	EBE	TV	OCO	7	782
E774426230	12/18/2010	3:15:43 PM	MAN-15	ECD	TV	OFU	35	2,705
E747204836	12/18/2010	3:19:28 PM	CHR-22	ECE	TV	OCO	24	9,289
E221276824	12/18/2010	3:25:33 PM	PIN-26	EBF	TV	OCO	3	442
E565318088	12/18/2010	3:34:07 PM	LHL-25	EBE	TV	OCO	1	77
E832799993	12/18/2010	3:55:27 PM	FWD-13	EBJ	TV	OCO	85	49,687
E992669417	12/18/2010	4:12:06 PM	SME-12	EBE	TV	OCO	9	773
E818218238	12/18/2010	4:16:10 PM	LMC-27	EBF	TV	OCO	11	1,142
E248893414	12/18/2010	4:37:28 PM	HOL-13	ECA	TV	OTF	9	761
E669946870	12/18/2010	4:43:09 PM	LMD-16	EBJ	TV	OFU	53	16,051
E892247981	12/18/2010	5:15:28 PM	SEQ-22	EBI	TV	OSV	5	4,423
E279977961	12/18/2010	5:27:34 PM	FNW-16	ECD	TV	OFU	14	2,316
E655778409	12/18/2010	5:36:00 PM	LTA-18	ECA	EF	OSW	398	173,528
E547369974	12/18/2010	5:38:56 PM	BON-13	ECA	TV	OSV	1	171
E480717462	12/18/2010	5:48:28 PM	SIL-15	ECD	TV	OCO	41	15,319
E063328967	12/18/2010	6:01:57 PM	DGR-16	ECA	TV	OPO	2	300
E129283208	12/18/2010	6:05:13 PM	OSC-22	EBI	TV	OCO	50	65,089
E524278916	12/18/2010	6:11:33 PM	EVA-27	EBJ	TV	OCO	24	13,115
E581213162	12/18/2010	6:12:58 PM	SHD-17	EBI	TV	OTF	17	16,525
E293145486	12/18/2010	6:15:30 PM	SME-12	EBE	EF	OCO	13	3,569
E951969792	12/18/2010	6:16:26 PM	CUM-15	EBJ	TV	OCO	2	1,547
10987509	12/18/2010	6:44:00 PM	SNQ-13	EBE	TV	OCO	50	17,550
E522213130	12/18/2010	7:00:17 PM	LMC-27	EBF	TV	OCO	5	1,014
E305879480	12/18/2010	7:06:15 PM	LAT-14	EBJ	TV	OFU	20	5,975
E169311671	12/18/2010	7:17:31 PM	SOO-25	EBI	TV	OFU	6	1,335
E530062659	12/18/2010	7:32:29 PM	BDI-13	EBI	TV	OPO	59	30,828
E708105511	12/18/2010	7:51:24 PM	SOO-26	EBJ	TV	OTF	6	388
10987510	12/18/2010	7:52:00 PM	SNQ-13	EBE	TV	OCO	7	5,516
10987545	12/18/2010	7:54:33 PM	VIK-23	EAA	CP	OPO	2	953
E903665081	12/18/2010	8:00:48 PM	RPT-22	ECD	TV	OCO	2	1,745
E788275115	12/18/2010	8:01:15 PM	MAP-13	EBF	TV	OCO	234	22,406
E567692814	12/18/2010	8:02:55 PM	VWY-12	EAA	EF	OCN	2	188
E638084193	12/18/2010	8:20:16 PM	WCA-16	EBJ	TV	OFC	16	15,036
E603539891	12/18/2010	8:27:33 PM	LMC-25	EBF	TV	OCO	113	11,748
E824797540	12/18/2010	8:43:10 PM	OSC-25	EBI	TV	OTF	4	1,527
E554495764	12/18/2010	10:03:05 PM	MAP-13	EBF	EF	UPC	11	1,121
E452166658	12/18/2010	10:04:56 PM	DGR-17	EBI	TV	OCO	1	1,157
E263038988	12/18/2010	10:07:11 PM	LTA-17	ECA	TV	OTF	3	113
E452756894	12/18/2010	10:34:12 PM	LMD-16	EBJ	TV	OCO	9	1,087
E590560883	12/18/2010	11:06:10 PM	LTA-17	ECA	TV	OTF	2	110
E708395514	12/18/2010	11:32:00 PM	OSC-22	EBJ	TV	OCO	1	239

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	
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
	TV – Trees/Vegetation	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	
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	

Media Coverage



Friday, Dec. 17, 2010

Wind storm knocks down trees, causes power outages

NORTH BEND, Wash. - Powerful winds hit parts of Western Washington Saturday morning, causing power outages and closing roads.

Peak gusts of 60 mph were reported in Enumclaw Saturday morning. There were also reports of gusts to 70 mph in the north Bend and Black Diamond area.

By midday the high winds had died down.

"Breezy and occasional gusty winds will continue through this evening, but damaging winds are no longer expected," said KING 5 Meteorologist Jim Guy. [Check your forecast](#)

In Enumclaw, downed power lines prevented firefighters from reaching the scene of a house fire.

Tim Rees could only stand by and watch as his neighbor's house burned. Too many hot wires kept him trapped on his own property.

News spread up and down the road of how one neighbor ran to the homeowner's rescue.

"Paul down there, he had to break the windows in the house to get her out," said Rees.

And just like the downed wires kept Rees helplessly blocked out, firefighters were also locked out of the scene.

"We've seen a lot of power lines but this is the first time I haven't been able to make it to a call because of that," said Lt. Greg Adams. "We tried a couple different directions and we just didn't have a chance."

The firefighters had to just stand by and watch as the home burned to the ground.

"It was frustrating, we want to help people and we couldn't do a thing," said Captain Greg Skipper.

Enumclaw resident Sue Hino described what it sounded like in the middle of the night when a tree crashed down.

"Like a bomb, it was really loud, a huge thud," she said.

Up the road, Jerry Brown's shingles were flying off the roof. He says things were falling off the walls. And most interesting was the wind's impact on the bathroom.

"It was hitting the house so hard that the water in the toilet bowl was shaking," said Brown.

Also in Enumclaw, the wind destroyed a five-stall horse barn, but all of the horses were able to escape unharmed.

A stretch of Highway 18 was closed for a time because of downed trees, and trees blocked the east and westbound lanes between Issaquah Hobart Road and I-90.

A tree fell on docks at the Seattle Yacht Club on Lake Union and vehicles were hit by falling trees on Queen Anne Hill.

There were no immediate reports of injuries due to the storm.

[Seattle City Light](#) reported outages scattered throughout the service area, affecting more than 12,000 customers. By 4 p.m., they said they had power restored to 95 percent of the customers on Queen Anne Hill and all of the customers on Beacon Hill.

[Puget Sound Energy](#) said at the height of the outage, 100,000 people were without power. By midday, power was restored to nearly 50,000. South King County - Enumclaw, Cumberland, Maple Valley - were hit the hardest.

Most of the power is expected to be restored by Sunday, but those in the most heavily damaged areas might not get power back until Monday. [Local utility information](#)

Several inches of snow fell in the Hood Canal area.

Guy says with a chilly east wind tomorrow at the passes the snow level will be at pass level. There will be scattered snow showers, with a trace to 2 inches, with high temperatures in the 20s.

"The rest of next week looks cool with showers at times. Expect a brief dry period on Wednesday, then showers stay in the forecast through Christmas weekend," said Guy.



Friday, Dec. 17, 2010

Wicked winds cut power to thousands

SEATTLE -- Power was cut to tens of thousands after damaging high winds swept through Western Washington overnight, causing trees to fall into power lines.

On Saturday morning, 100,000 Puget Sound Energy customers were without power in hundreds of locations after gusts of more than 70 mph were experienced in some areas.

KIRO 7 Eyewitness News [meteorologist](#) Rick Van Cise said gusts of 73 mph were measured in Enumclaw, 72 mph at Alpentel and 48 mph in Bellevue.

PSE said the majority of the outages were in south King County. The utility said Enumclaw, Cumberland and Maple Valley had significant damage with trees down and multiple poles broken.

PSE said it is possible that the most heavily damaged areas may not have power restored until Monday. About 3,500 were without power on Sunday.

Qualifying Storm Event
December 17, 2010

More than 40 line crews were brought in from other parts of the state and southern Oregon to help restore service.

Other particularly hard hit areas included north King and Pierce counties where the winds were the strongest. Parts of Thurston and Kitsap counties also have scattered outages.

In Seattle, close to 12,000 customers were without power early Saturday. The largest areas involved include Magnolia, Queen Anne and parts of Lake Union. Trees came down in several locations including Queen Anne and in south Beacon Hill.

All but a few hundred had power restored by Saturday afternoon.

Another 600 customers in the area including parts of Tukwila, Rainier View and Rainier Beach neighborhoods were without power.

Snohomish County PUD also reported 1,500 outages.

In Seattle's Madison Park area, two huge trees blocked 36th Avenue East and East Valley Street. At the Seattle Yacht Club, boats had to be moved after an uprooted tree fell on a dock.

In Enumclaw, the wind fueled a house fire and caused access problems for fire crews on 228th Avenue Southeast near SR 164 after a transformer exploded, a power pole went down and a fire was ignited.

The wind was so strong nine poles came crashing down, bringing live wires with them.

"I saw all the power poles all the way down the road just sandwiched to the road. It was insane," said Caleb Gwerder.

Firefighters had to park trucks about a quarter-mile away and wait for utility crews to respond before they could make their way to the fire.

The homeowner was able to escape from a bedroom window and then run to a neighbor's to call 911. The house appears to be a total loss. The homeowner is OK.

Near Auburn, a person was trapped inside a PT Cruiser after a tree fell on the car on Southeast Auburn-Black Diamond Road just east of Highway 18. Firefighters had to work around fallen branches to cut the person out of the car.

Western Wash. cleans up from wild windstorm

By KOMO Staff

Homeowners and work crews alike headed out after dawn Saturday to clean up from an overnight windstorm that howled through the Cascade foothills and into parts of metropolitan Puget Sound, leaving a trail of damage in its wake.

Winds gusted to more than 70 mph in Enumclaw and hit 50 to 60 mph in many other locales, toppling trees and power lines, damaging homes and barns - and even a marina near Seattle's University District.

It was the second weekend in a row that Western Washington has been slammed by a damaging weather system, following on the heels of last weekend's drenching rains and flooding.

At the peak of the overnight windstorm, more than 110,000 homes and businesses were without power across a swath of Western Washington and several roads were temporarily closed by fallen trees.

As day broke, crews began cleaning up in earnest, restoring electricity and removing trees from roadways.

About 100,000 Puget Sound customers lost power during the storm. By noon, about 47,000 homes and businesses still were without power, mostly in south King County. That number was reduced to about 29,000 by 3 p.m.

Falling trees took out scores of power poles and power lines across the Puget Sound region, and officials said

Qualifying Storm Event
December 17, 2010

homes in some of the harder-hit areas could be without power until Tuesday.

Extra crews were called in from out of state to cope with the widespread damage to the electrical grid.

Seattle City Light crews worked Saturday to restore power to more than 12,000 customers who went dark during the storm. As of 3 p.m., only 400 were still without power. Some of them might not get their power back until 8:30 p.m.

Within the Seattle city limits, trees came down in several locations, including the Queen Anne neighborhood and also south Beacon Hill.

The strongest winds hit Enumclaw, destroying a large barn and heavily damaging other buildings. Some homes were missing windows that were blown out by the force of the roaring winds and power lines were down everywhere.

The damage was so widespread that road crews ran out of "road closed" signs.

Trees also fell on homes and cars in Kent, Auburn, Queen Anne and elsewhere. A tree crashed onto a covered boat slip at the Seattle Yacht Club, not far from the University District.

The strong winds also wreaked havoc with some major roadways overnight. Highway 18 was closed between Interstate 90 and the Issaquah-Hobart Road for much of pre-dawn Saturday hours due to downed trees. The roadway reopened just before 8 a.m.

In addition, Highway 169 was closed near Enumclaw by fallen trees and power lines. It was reopened at about 11:10 a.m. Saturday.

In Kent, city crews headed out early Saturday to remove trees that were blown down over the road. All were cleared by noon except for a large tree tangled in power lines on South 222nd Street, blocking access to 20 homes. Officials said it could take several hours to shut off power and remove the tree.

Strong winds were also reported in North Bend, Snoqualmie, Black Diamond and Covington. In Black Diamond, a witness reported around midnight that multiple power lines were down along 264th Avenue between 400th SE and 416th SE.

The peak gust from the storm was in Enumclaw, where a weather observation station recorded a gust to 73 mph just after 4 a.m. Saturday. North Bend reported a gust to 60 mph while a spotter in Black Diamond saw a gust of 58 mph. Sea-Tac Airport reported a gust of 51 mph early Saturday morning.

Strong winds also were reported in the far north coastal areas near the western entrance to the Strait of Juan de Fuca, such as Neah Bay, where east winds race out to sea. Tatoosh Island had gusts over 60 mph for much of the night.

By late morning, the winds had died down and a high wind warning expired at noon. But the damage was already done in affected areas.

Wet snow also was reported in some areas around the Hood Canal, the Elma/Montesano area and on the higher hills above 1,000 feet in other areas.

The active weather, following on the heels of last weekend's heavy rains and flooding, seemed to be fulfilling meteorologists' predictions that La Nina would bring a wetter and colder winter season than normal. And the official start of winter is still a few days away.

High winds coming Friday night; snow possible in Portland

Posted by [Jack Broom](#)

The big weather story of the day is likely to be the [high winds](#) expected on the Olympic Peninsula and in the eastern Puget Sound lowlands (Think Enumclaw, Covington, Black Diamond, North Bend) where sustained winds of 30 to 40 miles an hour – and gusts up to 65 – are forecast Friday evening through Saturday morning.

Trees standing on saturated soil may be more vulnerable to toppling, creating the possibility of blocked roads, downed power lines, power outages and damage to structures.

Headed south? The Portland/Vancouver area could see some snow late Friday night and Saturday morning, according to a "[special weather statement](#)" from the Weather Service.

At this point, it's uncertain how cold it will be, but snow in that area could start about midnight, with heavier precipitation falling between 3 a.m. and 9 a.m. Saturday. The snow would likely to turn to rain by late Saturday, but before that happens, the Portland/Vancouver metro area could see "a brief period of heavy wet snow."

Closer to home, rain in the Puget Sound area Saturday could be mixed with snow at times in areas north of Seattle at elevations of 500 feet or higher.

The Seattle Times

Saturday, December 18, 2010 - Page updated at 05:58 PM



MARK HARRISON / THE SEATTLE TIMES

The roof blew off a building at the Puget Sound Energy operations facility on 244th Avenue Southeast in Enumclaw, where winds up to 65 miles an hour were recorded.

High winds cut power to 112,000 in South King, Pierce, Kitsap counties

Qualifying Storm Event
December 17, 2010

Seattle Times staff

High winds overnight and Saturday morning, some gusting up to 70 miles per hour, knocked power out for an estimated 112,000 customers in King, Pierce and Kitsap counties, and a house burned to the ground in Enumclaw because downed power lines prevented fire crews from reaching the blaze.

Outages were heaviest in South King County, where crews had to back off tending to downed lines earlier Saturday because the winds were so fierce, said MacKenzie McDowell, a Puget Sound Energy spokeswoman.

Power went out in for nearly 100,000 PSE customers in about 207 locations scattered throughout PSE's coverage area in King, Pierce and Kitsap counties, McDowell said.

Power was restored to about 50,000 customers about midday Saturday, but 47,000 customers were still without power, primarily in South King County where there was significant damage, mostly downed trees and broken power poles.

Areas suffering the most damage are Maple Valley, Cumberland and E

While the utility hoped to have power back to those customers Saturday and Sunday, some could be without power until Monday or Tuesday, she said.

She said PSE has 130 people in the field working on the outages, along with 45 others from elsewhere in Washington and Oregon.

In Seattle, about 12,000 Seattle City Light customers were without power early Saturday, primarily in the Magnolia and Queen Anne neighborhoods and parts of the Fremont neighborhood.

By 3:45 p.m., power was restored to all but about 300 customers on Queen Anne Hill, according to City Light. City Light estimates that power will be fully restored to Queen Anne by 7 p.m.

Saturday morning's winds peaked above 70 miles per hour on the Cascade foothills and at Snoqualmie Pass, according to meteorologist Johnny Burg of the National Weather Service. A gust of 73 miles per hour was recorded near Enumclaw, and at 72 miles per hour at Alpental.

The weather is expected to return to normal this afternoon and tomorrow: Showers, with light winds.

The morning gusts caused trees to drop on power lines across the region. At 4:30 a.m., PSE reported 31,000 customers without electricity. That rose to 50,000 an hour later, then to 75,000 as of 8 a.m.

In Enumclaw, a house in the 42900 block of 228th Avenue Southeast burned down because fire crews couldn't get close enough to fight the fire.

"We had difficulty accessing the scene due to downed power lines and power poles on either side of the property" said Enumclaw Fire Chief Joe Clow.

The woman who lived in the home escaped with only a scratch to her arm when she climbed out a window and ran to a neighbor's house, Clow said. The woman's cat may have perished in the blaze, which was called in about 4:30 a.m. Saturday.

Qualifying Storm Event
December 17, 2010

Nine poles came down in the wind storm, blocking the street. Firefighters couldn't even walk hoses into the area until Puget Sound Energy arrived to cut power to the downed lines. By that time, the house was mostly gone.

With the power off, firefighters hand carried hoses to a hydrant in front of the home and put out remaining flames and hot spots to prevent the fire from spreading to nearby buildings, Clow said.

"Watching a house burn isn't something we like to see," Clow said.

"We tried everything we could" he said. The Red Cross is assisting the woman.

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Saturday, Dec. 18, 2010

70 mph winds down trees, power lines in Cascade foothills

By Scott Sistek

ENUMCLAW, Wash. -- Strong winds gusting over 70 mph downed trees and power lines in some Cascade foothill towns Friday night, leaving thousands in the dark.

Puget Sound Energy says 41,000 customers lost power Friday night, mainly in South King and Pierce County. Seattle City Light had 12,000 people without power as of early Saturday morning, mainly affecting Magnolia, Queen Anne, Fremont, Tukwila and the Rainier Beach areas.

Grays Harbor PUD had 900 in the dark.

So far, the peak gust from the storm has been in Enumclaw, where a weather observation station recorded a gust to 73 mph just after 4 a.m. Saturday. North Bend reported a gust to 60 mph while a spotter in Black Diamond saw a gust of 58 mph.

A High Wind Warning remains in effect for the Cascade foothills through noon Saturday for easterly winds of 30-40 mph with gusts as high as 60-65 mph. A lesser Wind Advisory is in effect for the greater Seattle-Bremerton areas until noon for gusts to 50 mph. Sea-Tac Airport reported a gust of 51 mph early Saturday morning.

The strong winds wreaked havoc with some major roadways overnight. SR-18 was closed between I-90 and the Issaquah-Hobart Road for much of pre-dawn Saturday hours due to downed trees. The roadway reopened just before 8 a.m.

Strong winds were also reported in North Bend, Snoqualmie, Black Diamond, Kent and Covington. In Black Diamond, a witness reported around midnight that multiple power lines were down along 264th Avenue between 400th SE and 416th SE. In Kent, a report of a tree down into power lines on 202nd Place SE.

In Preston near Issaquah, crews had to close eastbound I-90 down at Jones Road due to downed power lines. It reopened a short time later.

Qualifying Storm Event
December 17, 2010

"We have alot of damage outside our carport canapy (sic) is on top of our car...Our boat is very likely ruined," Denise Moss Nonan of Cumberland wrote on [my Facebook page](#). "Things are slamming my house from all sides. This is truly scary. Scarier than it has ever been."

Most towns affected are near the outflow areas of the Cascades such as North Bend, Enumclaw, Gold Bar and Cumberland, but this system also produced mountain waves that can bring strong wind gusts all along the western spine of the Cascades, even out into the eastern lowland areas like Issaquah, Black Diamond, Eatonville, and Sultan.

"Power is still on in North Bend," @Lockettlady Tweeted just after midnight. "But it sounds like we are in the middle of a hurricane."

"I think a car just hit our house. Oh wait, no, it was just one of those cows that flew in from Enumclaw," Tweeted @OuroborosSnyder.

"The (wind) just blew my thermometer off the back deck and broke it," Tweeted @SteeleThisLOL from Covington.

Another place in the warning is the far north coastal areas near the western entrance to the Strait of Juan de Fuca, such as Neah Bay, where east winds race out to sea. Tatoosh Island had gusts over 60 mph for much of the night.

Winds will calm rather quickly as we get into Saturday afternoon.

Wet snow possible around Hood Canal area Saturday and Elma/Montesano area.

Aside from the wind, showers will pick up on Saturday morning as this at low moves through. It will be all rain for 98% of the Western Washington lowlands (including all of the big cities) as the snow level will be around 1,000 feet Saturday.

Generally speaking, we're looking at rain at times Saturday as that storm comes ashore. But the western Kitsap Peninsula/ Hood Canal area could see some wet snow as those easterly winds crash into the eastern slopes of the Olympic Mountains and intense showers drag the snow levels down to the surface. It's the reverse rain shadow effect.) This is a frequent snow belt and those who live between Shelton and Chimacum are well versed in this phenomenon.

A Winter Weather Advisory is in effect from 4 a.m to 1 p.m. Saturday for the Hood Canal area and inland Grays Harbor County, including Elma and Montesano, for a much as 1-3" of snow, especially above 500 feet. For everyone else, snow levels look to be around 1,000 feet Saturday but there is one more wrinkle that could briefly drop snow levels down to a few hundred feet or lower. ([Check your elevation here.](#)) The east winds will dry out the lower levels of the atmosphere because as that air sinks down the western slopes of the Cascades, it'll dry out the air. Now if moisture above falls into a dry layer near the surface, it can do a process called "evaporative cooling" but long and short of it is that the dry air can cause temporary cooling when a shower begins, and depending on how strong the shower is, it can lower the snow level a few hundred feet.

This is not a big issue for Seattle, but anyone might see the rain begin as wet snow if showers are heavy enough Saturday.

The Kitsap snow chances end Saturday afternoon, but we could see these brief 500 foot snow showers Saturday night as well. By Sunday, evaporative cooling is no longer in play and it's rain for everyone.

What causes the strong east winds?

Qualifying Storm Event
December 17, 2010

It's yet another quirk of Washington that we can have sunny skies and yet still, the weather is dangerous in spots. During the winter, cold, dense air settles in the Eastern Washington Valley, and since the air is so heavy, it's difficult to budge, as anyone who has lived over there can attest.

But it's that density that creates very high pressure in Eastern Washington. Meanwhile, when a low pressure center approaches from the west, it creates a very large difference in pressure between Eastern and Western Washington, and the wind will shoot through the gaps in the Cascade Mountains into Western Washington to try and equalize the pressure.

To wit: During the peak of the storm early Saturday morning, Seattle's pressure was at 29.41" while Wenatchee was at 29.77".

That is why towns near the mountain passes get so windy. You're essentially standing at the end of a wind tunnel. Wind speeds decrease as the air spreads out into Western Washington and you go farther west from the mountain passes.

Mountain waves can add problems

But sometimes it's not just air coming through the mountains but over them. If the storm is strong enough, you can get "waves" of air crashing down the slopes, bringing sudden, high gusts of wind.

These occur when you have wind going across a mountain range and air flow that increases as you go higher in the atmosphere. These can create turbulent waves that act much like the water waves you see at the ocean, only it's air that's rolling down the hills, not water.

These can bring high winds along any area near the mountains, not just next to the pass gaps. They are characterized by sudden gusts that seem higher than the sustained winds, for instance it can be blowing 20-25 mph then a mountain wave can bring a sudden burst of 50-55 mph winds.

Winds will calm down Saturday afternoon as the difference in pressure decreases rapidly.



Weekly news for the citizens of
Issaquah, WA

Saturday, Dec. 18, 2010

Puget Sound Energy restores power to Issaquah customers

By Warren Kagarise

Puget Sound Energy has restored power to Issaquah customers after a late-fall windstorm left thousands in the dark early Saturday.

Crews completed the task just after 2 p.m.

The utility said more than 300 Issaquah customers lost power as a result of strong winds. The storm also toppled trees and forced transportation officials to [close roads](#) in the Issaquah area overnight.

National Weather Service forecasters in Seattle lifted the high wind warning for the Puget Sound lowlands just before 10 a.m. Saturday.

The strong winds resulted as storm deepened offshore and a front barreled north across the region. Though forecasters said breezy conditions and occasional gusts should continue throughout the afternoon, the potential for damaging winds has lessened.

Storm cuts power to 112,000; rural home burns

A fierce windstorm blew through the region Friday night and Saturday morning, toppling trees and power lines with gusts reaching 70 miles per hour.

A fierce windstorm blew through the region Friday night and Saturday morning, toppling trees and power lines with gusts reaching 70 miles per hour.

At its height, the storm knocked out electricity to an estimated 112,000 utility customers in King, Pierce and Snohomish counties.

Outages were heaviest in South King County, where crews had to back off tending to downed lines early Saturday because of high winds. A house burned to the ground near Enumclaw when downed lines prevented firefighters from reaching the blaze.

By Saturday evening, the skies were calmer and electricity was restored to most homes. About 27,000 Puget Sound Energy (PSE) customers remained without power early Saturday evening, mostly around the Enumclaw, Cumberland and Maple Valley area, spokeswoman MacKenzie McDowell said.

Crews were working overnight to restore power, but extensive wind damage could leave some homes in the dark until Tuesday, she said.

PSE had 130 people in the field working to restore power, along with 45 others from elsewhere in Washington and Oregon.

In Seattle, about 12,000 Seattle City Light customers were without power early Saturday, primarily in the Magnolia, Queen Anne and south Beacon Hill neighborhoods and in parts of the Fremont neighborhood. By Saturday evening, power had been restored to all but 400 customers, the utility said.

Saturday morning's winds peaked above 70 mph in the Cascade foothills and at Snoqualmie Pass, according to meteorologist Johnny Burg of the National Weather Service. A gust of 73 mph was recorded near Enumclaw, and one of 72 mph at Alpentel.

The weather is expected to return to normal this afternoon and tomorrow, with showers and light winds.

"It's going to calm down," Burg said.

Near Enumclaw, a house in the 42900 block of 228th Avenue Southeast burned down because firefighters couldn't get close enough to battle the flames.

"We had difficulty accessing the scene due to downed power lines and power poles on either side of the property," said Enumclaw Fire Chief Joe Clow.

A woman who lived in the home escaped with only a scratch to her arm, from climbing out a window, and ran to a neighbor's house, Clow said. The woman's cat may have perished in the blaze, which was called in about 4:30 a.m. Saturday.

Nine poles came down in the windstorm, blocking the street. Firefighters couldn't even walk hoses into the area until Puget Sound Energy arrived to cut power to the downed lines. By that time, the house was mostly gone.

With the power off, firefighters carried hoses to a hydrant in front of the home and put out remaining flames and hot spots to prevent the fire from spreading to nearby buildings, Clow said.

Watching a house burn isn't something a fire crew likes, Clow said.

"We tried everything we could," he said.

The Red Cross was assisting the woman.



MARK HARRISON / THE SEATTLE TIMES

Smoke rises, at right, from the remains of a house on 228th Avenue Southeast near Enumclaw on Saturday. It

THE NEWS TRIBUNE

Saturday, Dec. 18, 2010

PSE: Wind knocked out power to nearly 100,000 in Northwest

Puget Sound Energy reported that nearly 100,000 customers in their service area lost power as the result of the windstorm that swept through Western Washington reaching up to speeds of 70 mph in some areas.

Puget Sound Energy reported that nearly 100,000 customers in their service area lost power as the result of the windstorm that swept through Western Washington reaching up to speeds of 70 mph in some areas.

As of noon today, the utility had restored power to nearly 50,000 customers. Approximately 47,000 PSE customers are still without power at 207 locations. The majority of the outages are in south King County where the winds were the strongest. The hardest hit cities included Renton which had over 10,500 without power, Federal Way had over 8,500 and Auburn had over 6,000 reported by mid-morning.

Areas in Enumclaw, Cumberland and Maple Valley have significant damage with trees down and multiple poles broken.

Other effected areas include north King and Pierce counties. Lake Tapps had over 1300 customers without power this morning. Parts of Thurston and Kitsap counties also have scattered outages.

Powerful winds from last night and this morning caused trees and limbs to fall into power lines. Due to the continuing winds, crews were not able to start restoration efforts until after daylight.

View a map showing the estimated number of customers currently without power.

With improved weather conditions, PSE expects to restore power to tens of thousands of customers throughout Saturday and Sunday. It is possible that the most heavily damaged areas needing significant restoration work may not have power restored until Monday or Tuesday.

PSE crews are working around the clock to assess the damage and make repairs. PSE currently has 40 damage assessor crews, 37 four-person line crews, 38 first-response servicemen and 15 tree crews mobilizing within our service area. An additional 45 line crews from other parts of Washington state and southern Oregon are being brought in to assist with the assessment and restoration efforts.

PSE recognizes the inconvenience to our customers and is committed to communicating with them to enable those we serve to take necessary steps in this situation. Power restoration information can be viewed on PSE's service alert map on PSE.com.

The Seattle Times

Saturday, Dec. 18, 2010

Power restored to most Puget Sound Energy customers

Posted by [Jim Brunner](#)

About 27,000 Puget Sound Energy customers remain without electricity as of Saturday evening, according to a utility spokeswoman.

That's down from the more than 100,000 customers lost power following the vicious windstorm that ripped through the region Friday evening and Saturday morning.

The areas still in the dark are clustered in South King County, around the Enumclaw, Maple Valley and Cumberland areas. That was the area hardest hit by winds gusting above 70 miles per hour during the storm's height.

PSE spokeswoman MacKenzie McDowell said crews hope to have power restored to most places by Sunday, but some customers could have to wait as long as Tuesday.

Qualifying Storm Event
December 17, 2010

In Seattle, meanwhile, just about 400 customers remained without power as of Saturday evening, according to [Seattle City Light](#).

The National Weather Service predicts some gusty winds tonight of up to 30 miles per hour in East King County, but that should calm down by Sunday with a return to the more normal light winds and rain showers.

The Seattle Times

Sunday, Dec. 19, 2010

Power returns to most customers from weekend windstorm

Posted by [Katherine Long](#)

Puget Sound Energy is making progress on restoring power to thousands of people in South King County hit by Friday night's windstorm. By 10 a.m. Sunday, just 2,200 customers were without electricity, down from more than 100,000 on Saturday.

"The large majority of them will have power back this evening, but some may not have power until Monday," said spokeswoman MacKenzie McDowell.

More than 200 Puget Sound Energy workers were working on the lines Sunday, including 244 line workers, eight tree crew workers and 12 servicemen.

The company has [posted a photo gallery](#) of the damage and of crews working on the lines.

The late Friday night/early Saturday windstorm brought gusts of 70 to 80 miles per hour in mountain foothills such as Enumclaw and Black Diamond, where the strongest winds and the most extensive swath of power outages, occurred. In some places, power poles were snapped in half, and in other places, trees falling across the lines caused outages.

Normally such strong winds come from the south. But Friday's windstorm came from an unusual direction: the East. Atmospheric sciences professor Cliff Mass [has a good description](#) on his blog about what causes easterly winds, and why they are relatively rare in our region.



Sunday, Dec. 19, 2010

3,500 homes still without power after wind storm

About 3,500 homes still were without power in south King County on Sunday morning more than 24 hours after a windstorm roared out of the Cascade foothills, Puget Sound Energy officials said.



Qualifying Storm Event
December 17, 2010

Most of those were expected to have electricity by Sunday evening, but some homes in isolated or remote areas could be without power until Monday afternoon.

Power was restored to all customers in north King, Thurston, Pierce and Kitsap counties by Sunday morning.

In south King County, including Enumclaw, Cumberland, Maple Valley, and Federal Way, wind gusts of more than 70 mph caused significant damage to the power grid, with downed trees and multiple broken poles.

Downed power poles hang precariously over a roadway in Enumclaw on Saturday morning after a windstorm hit the area with 70-mph gusts. KOMO/4

Gusts of 50 to 60 mph caused less extensive damage elsewhere in the region. More than 100,000 Puget Sound Energy customers were in the dark at the peak of the storm.

Extra crews were brought in to help restore power Saturday, and they are continuing to work on Sunday. More than 300 workers, including 70 line crews, five tree crews, and 15 damage assessor teams are working to repair more than 100 individual damage sites, PSE officials said.

Power is expected to be restored in Black Diamond, Cumberland, Hobart, Auburn, Federal Way and Normandy Park by Sunday evening.

The majority of our customers in Enumclaw, Maple Valley and Osceola should have power restored by Monday morning, with full restoration by early Monday afternoon for remaining customers in remote or isolated areas.

PSE officials said their crews will continue to work around the clock to restore power.

About 12,000 Seattle City Light customers also lost electricity during Saturday morning's windstorm, but service has now been restored to all of them.

Sky Valley Chronicle

Sunday, Dec. 19, 2010

N.W. WINDSTORM LEAVES IN ITS WAKE

Power outages, blown down barns, downed trees, lots of cleanup

(REGIONAL) -- Friday night and Saturday's barn-busting (in the literal sense) windstorm in the Puget Sound lowlands left behind a string of casualties in its wake.

The winds knocked down a barn in Enumclaw (see shot to the right) knocked down trees and huge tree limbs and knocked out power to thousands of homes.

Some of the biggest wind gusts were in the 60 to 70 mph range and they whipped through North Bend, Black diamond, Snoqualmie, Covington and the Enumclaw areas.

In Enumclaw, downed power lines also prevented firefighters from reaching the scene of a house fire.

Puget Sound energy had some 100,000 people without power at one time but by the afternoon Saturday that figure was down by about half. Seattle City light had to restore power to some 12,000 customers.

Qualifying Storm Event
December 17, 2010

The biggest wind gust from the storm was recorded at a weather observation station in Enumclaw – a blistering 73 mph gust that hit just after 4:00 a.m.



Sunday, Dec. 19, 2010

Enumclaw sees worst of storm damage

[Watch story here.](#)

ENUMCLAW, Wash. -- In a powerful windstorm that knocked down trees, power lines and entire buildings and cut power out to more than 100,000, Enumclaw suffered some of the most dramatic damage.

Renee Buschnell showed KIRO 7 Eyewitness News reporter Graham Johnson the damage when two big trees in her front yard blew down onto her neighbor's house.

"I feel badly. She's got a huge fear of the trees coming down and now they have," said Buschnell of her neighbor.

Buschnell's neighbor had gone downstairs to sleep during the windstorm and was not hurt.

Elsewhere in Enumclaw, Brad Nonan's mother moved to her living room in the middle of the night because it seemed safer.

A huge maple tree crashed into her home, knocking the trailer of the jacks. She was not hurt.

Next door, it was a close call, too, for Brad's brother, Peter, and his family.

"Things were slapping the house from every angle. The roar of the wind was horrible. We were covering our ears, it was awful," said Denise Nonan.

Ten heavy sandbags holding down their boat canopy proved to be no match for the wind.

There is storm damage all around Enumclaw. The wind knocked down a two-story barn filled with thousands of dollars in equipment.

On the Gallagher's property, 15 big trees crashed over.

The wind also fueled a house fire and caused access problems for fire crews on 228th Avenue Southeast near SR 164 after a transformer exploded, a power pole went down and a fire was ignited.

The wind was so strong nine poles came crashing down, bringing live wires with them.

"I saw all the power poles all the way down the road just sandwiched to the road. It was insane," said Caleb Gwerder.

Firefighters had to park trucks about a quarter-mile away and wait for utility crews to respond before they could make their way to the fire.

Qualifying Storm Event
December 17, 2010

The homeowner was able to escape from a bedroom window and then run to a neighbor's to call 911. The house appears to be a total loss, but the homeowner is OK.

Some Puget Sound Energy customers in south King County who remain without power may not have it restored until Monday because of the severity of the damage.



Sunday, Dec. 19, 2010

Wind storm knocks down trees, causes power outages

NORTH BEND, Wash. - Powerful winds hit parts of Western Washington Saturday morning, causing power outages and closing roads.

Peak gusts of 60 mph were reported in Enumclaw Saturday morning. There were also reports of gusts to 70 mph in the north Bend and Black Diamond area.

By midday the high winds had died down.

"Breezy and occasional gusty winds will continue through this evening, but damaging winds are no longer expected," said KING 5 Meteorologist Jim Guy.

In Enumclaw, downed power lines prevented firefighters from reaching the scene of a house fire.

Tim Rees could only stand by and watch as his neighbor's house burned. Too many hot wires kept him trapped on his own property.

News spread up and down the road of how one neighbor ran to the homeowner's rescue. "Paul down there, he had to break the windows in the house to get her out," said Rees.

And just like the downed wires kept Rees helplessly blocked out, firefighters were also locked out of the scene. "We've seen a lot of power lines but this is the first time I haven't been able to make it to a call because of that," said Lt. Greg Adams. "We tried a couple different directions and we just didn't have a chance." The firefighters had to just stand by and watch as the home burned to the ground. "It was frustrating, we want to help people and we couldn't do a thing," said Captain Greg Skipper.

Enumclaw resident Sue Hino described what it sounded like in the middle of the night when a tree crashed down. "Like a bomb, it was really loud, a huge thud," she said.

Up the road, [Jerry Brown's](#) shingles were flying off the roof. He says things were falling off the walls. And most interesting was the wind's impact on the bathroom.

"It was hitting the house so hard that the water in the toilet bowl was shaking," said Brown.

Also in Enumclaw, the wind destroyed a five-stall horse barn, but all of the horses were able to escape unharmed.

A stretch of Highway 18 was closed for a time because of downed trees, and trees blocked the east and westbound lanes between Issaquah Hobart Road and I-90.

A tree fell on docks at the Seattle Yacht Club on Lake Union and vehicles were hit by falling trees on Queen Anne Hill.

Qualifying Storm Event
December 17, 2010

There were no immediate reports of injuries due to the storm.

Seattle City Light reported outages scattered throughout the service area, affecting more than 12,000 customers. By 4 p.m., they said they had power restored to 95 percent of the customers on Queen Anne Hill and all of the customers on Beacon Hill.

Puget Sound Energy said at the height of the outage, 100,000 people were without power. By midday, power was restored to nearly 50,000. South King County - Enumclaw, Cumberland, Maple Valley - were hit the hardest. Most of the power is expected to be restored by Sunday, but those in the most heavily damaged areas might not get power back until Monday.

Guy says with a chilly east wind tomorrow at the passes the snow level will be at pass level. There will be scattered snow showers, with a trace to 2 inches, with [high temperatures](#) in the 20s.

"The rest of next week looks cool with showers at times. Expect a brief dry period on Wednesday, then showers stay in the forecast through Christmas weekend," said Guy.

THE NEWS TRIBUNE

Sunday, Dec. 19, 2010

PSE crews working to restore power in Federal Way, Enumclaw

Posted By [Sara Schilling](#)

Puget Sound Energy says it's restored service to customers in Pierce, Thurston, Kitsap and north King counties who lost power in the windstorm Friday night and Saturday morning.

But crews are still working on some spots in south King County, including Enumclaw, Cumberland, Maple Valley, and Federal Way, [PSE said in an update today on its website](#).

That area saw gusts of more than 70 mph, downed trees and broken poles, PSE said. Power has been restored to 48,000 customers, but about 6,000 still are without power, PSE said.

"To speed restoration efforts, we have moved additional crews to the area. We have more than 300 workers, including 70 line crews, five tree crews, and 15 damage assessor teams working to repair more than 100 individual damage sites," the update said.

Power should be restored to customers in Black Diamond, Cumberland, Hobart, Auburn, Federal Way and Normandy Park by tonight, and to most customers in Enumclaw, Maple Valley (Lake Wilderness) and Osceola should have power restored by Monday morning, PSE said. Customers in remote more areas should have power by Monday afternoon, PSE said.

Nearly 100,000 customers lost service in the storm.



Sunday, Dec. 19, 2010

South King County hit hard by wind storm

By [Tonya Mosley](#)

Qualifying Storm Event
December 17, 2010

ENUMCLAW, Wash. - For Diana Gunderson and her friends, it's bunco by candlelight. "No power doesn't mean no bunco," she said.

For these longtime Enumclaw friends, a month of planning an evening with friends is eclipsed by mother nature and a fickle generator.

"It's been OK until someone tried to heat up coffee," said Gunderson. Power crews say they've never seen anything quite like it. Ten power poles were knocked down by 60 mile an hour winds.

"What happens is one pole gives way and the others can't take it so they all give way, like dominoes," said General Foreman Terry Jerke.

Jerke and his team will be working well into the morning putting up the new poles. Everyone in this area is also thinking about the woman who lost her home in a fire.

"It's really sad, but I'm happy she got out and was able to run to a neighbors house," said Gunderson.

Firefighters had to stand back and watch the house burn, crews believe arcing wires ignited the fire. The woman escaped but even hours later it's still too dangerous to return.

"This is the first time I haven't been able to make it to a call because of that," said a firefighter on scene. More than 400 Puget Sound Energy workers are out in the field this weekend, most of them in South King County.



Sunday, Dec. 19, 2010

Crews working furiously to fix massive power outages

Most electricity is expected to be restored by Monday morning.

KING COUNTY —

A power outage that affected more than 100,000 Puget Sound Energy customers is now down to less than 3,500.

PSE says they are no longer estimating the number of customers in the dark across King County because "the number is go down so rapidly."

A windstorm Saturday night wreaked havoc across the Enumclaw and South King County area, with wind gusts as high as 73 mph toppling power poles like dominoes

On Saturday, power crews thought the power might not be completely back on for people in Enumclaw, Maple Valley, Osceola, Black Diamond, Cumberland, Hobart, Auburn, Federal Way, Normandy Park and other more remote areas until Tuesday.

Now PSE says all the big jobs are done, like repairing power poles, and power could be restored fully by early Monday morning.



Qualifying Storm Event
December 17, 2010

Those without power Monday morning should call PSE at 1-888-225-5773 to report their outage while crews are still in the area.

Kitsap Sun

Sunday, Dec. 19, 2010

Some Kitsap Residents Could See an Inch of Morning Snow

Residents along Hood Canal could wake up to an inch of holiday-week snow, should a prediction from the National Weather Service come true.

"Some places got cold enough that they got some snow Sunday night," said meteorologist Johnny Burg. And snow began falling after 9 p.m. in East Bremerton, according to several reader reports. Temperatures were predicted to drop to 32 degrees in the early morning hours.

But any snow will soon turn to rain, as temperature march toward 40 degrees. Winds will be calm and out of the northeast, at about 10 mph.

Kitsap County was spared wholesale electricity outages from Saturday's winds. Very small scattered outages were reported, but were restored the same day, according to Puget Sound Energy.

The Seattle Times

Sunday, Dec. 19, 2010

Power likely to be restored to most PSE customers by Monday

Power was expected to be restored to all but a few Puget Sound Energy customers by Monday morning, as workers continued to mop up damage from Friday night's windstorm.

The windstorm that hit Friday night and Saturday morning brought wind gusts of up to 70 miles per hour, snapped some power poles in two and left more than 100,000 people in the dark, said MacKenzie McDowell, spokeswoman for PSE. Most of the damage was in Enumclaw, Black Diamond and Cumberland.

The windstorm was caused by relatively rare easterly winds, according to Cliff Mass, an atmospheric-sciences professor at the University of Washington. Normally, the Cascade Mountains block easterly winds, but "under the right conditions air can push through Stampede Gap and accelerate as it descends into the lowlands," Mass explained in his blog, cliffmass.blogspot.com.

A large pressure difference across the Cascades, strong flow striking the Cascades and a wind reversal above the mountain crest all contributed to the phenomenon, Mass said.

During the next several days, Western Washington will see a typical mix of rain and showers. Expect temperatures mostly in the low- to mid-40s during the day and in the low- to mid-30s at night, according to meteorologists.

Thursday through Christmas Day will see more rain, particularly along the coast.