



**U.S. Department of Energy
Emergency Support Function #12**

***Pacific Northwest Storms Situation Report # 2
December 16, 2006 (1 PM EST)***

Summary

Highlights:

Severe wind and snow storms hit the Pacific Northwest region on December 14 – 15, 2006 resulting in major power outages in the region. The storm is now moving off into southern Canada. A new weather disturbance nearing the Northwest coast may generate a few rain and snow showers across the Seattle and Portland areas today, but widespread active weather is not expected.

There are roughly 950,000 customers in the region (including Canada) without power as a result of the Pacific Northwest storms, down from a peak of 1.8 million customers. This represents about 26 percent of customers in affected utility service areas in Oregon and Washington. See table below.

As of 12:30 PM EST, the Renton Control Center for the Olympic Pipeline (petroleum products) had power restored. The pipeline, serviced by Puget Sound Energy, was shut down after it lost power during the storm. According to a pipeline official, the pipeline is expected to restart in approximately 2-3 hours with some reduced throughput later today. SeaTac International Airport receives jet fuel from the pipeline; however, it's been reported that the airport has approximately eight days of jet fuel inventories on hand.

There are no reports of problems regarding fuel production. There are some temporary and minor distribution at retail gas stations due to lack of power. Fuel delivery is also slowed in some areas due to delays on some roads.

ESF #12 has not been deployed.

Electric Outage Information

Pacific Northwest Electricity Customer Outages

Utility	Location	Outages	Total Customers	% w/o Power
Puget Sound Energy	WA	500,000	893,576	56%
Seattle City Light	WA	60,000	336,363	18%
Snohomish County PUD	WA	13,000	272,829	5%
Tacoma Power	WA	44,000	145,375	30%
Grays Harbor PUD	WA	1,500	34,096	4%
Mason County PUD #3	WA	10,000	31,000	32%
Cowlitz County PUD	WA	3,000	40,801	7%
Clark Public Utilities	WA	1,400	173,000	1%
Lewis PUC	WA	5,000	30,000	17%
Portland General Electric	OR	80,000	680,093	12%
Pacific Power	OR	73,892	447,272	17%
BC Hydro	CAN	163,000	NA	
TOTAL		954,792	3,084,405	

Sources: Puget Sound Energy, Tacoma Power, Grays Harbor, Clark, Lewis, Seattle City Light, Pacific Power outages from utility reports to Washington State Energy Office and U.S. DOE.

Remaining utility outage data obtained from utility websites:

Seattle City Light outages as of (6:30 AM PST 12/16) <http://www.seattle.gov/light/>

Snohomish County PUD Data (as of 4:00 PM PST 12/15)

<http://www.snopud.com/about/CustomerNews/StormUpdates.ashx?p=2214>



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Portland General Electric (as of 9:17 AM PST 12/16) http://www.portlandgeneral.com/about_pge/news/Default.asp?bhcp=1
BC Hydro (as of 5:00 PM PST 12/15) <http://www.bchydro.com/outages/>
Clark Public Utility outage Information (as of 9:45AM PST) outage hotline at 360-992-8000
Total customer data as of 2005 from EIA: <http://www.eia.doe.gov/cneaf/electricity/esr/table6.xls>

Restoration Efforts:

More than 80 Puget Sound Energy (PSE) transmission lines, over half of the utility's entire high-voltage system, were damaged by the storm. These are priority repairs as they supply bulk power to the substations that serve individual communities and neighborhoods. At the same time, other PSE crews are working to repair key parts of the distribution system, particularly damaged were substation circuits and feeder lines. There are 250 repair crews now working to restore power and about 85 additional crews being brought in over the next couple of days from as far away as Kansas. PSE has re-energized 20 transmission lines and more half of the 150-plus substations that lost power from the storm.

Seattle City Light reports that a total of 65 feeders in its above-ground system went off line. As of 6:30 AM PST 12/16, 33 feeders had been restored or partially restored. Feeders are the lines that bring electricity from substations to neighborhoods. Feeders can carry 3,000 to 4,000 customers each. Some customers could be without power for as much as 48 - 72 hours.

Snohomish County PUD has almost 60 crews in the field. Peak outages were 120,000. The majority of damage is located in the southeast portion of Snohomish County: Bothell, Turners Corner, and Three Forks with pockets in Edmonds, Lynnwood, and Mill Creek.

Portland General Electric (PGE) restoration efforts are expected to continue through the weekend, and perhaps into early next week. More than 25 contract crews (from Eugene and out of state) are joining PGE crews to help restore power. Restoration efforts are expected to go through the weekend and into early next week. At the height of the storm, nearly 250,000 customers were affected.

Clark and Lewis County Public Utilities report that power should be restored to all customers this weekend.

BC Hydro has restored power to 87,000 customers. 163,000 remain without power. Some customers may be without power for several days. As many as 800 BC Hydro and contractor staff are responding to the outages. Key trouble areas include Vancouver, the North Shore, the Tri-Cities, Victoria and Burnaby

Petroleum & Gas Information

Shipping disruptions in the area are minimal and none are reported for the delivery of oil or fuel. Some inland waterways and rivers were closed by the US Coast Guard as a precaution. The Port of Seattle has experienced some interruptions in service due to loss of power, but damage in the Puget Sound area has been minimal according to the US Coast Guard. Some of the terminals that were closed have re-opened. The Port of Tacoma also had some minor interruptions in service early Friday, but was operating again by the end of Friday 12/15.

There are no reports of problems at any of the refineries in Washington State or at fuel terminals. There are no reported problems receiving oil from Canadian crude oil pipelines.