Exhibit No. ___ (APB-16)
Docket Nos. UE-050684 and UE-050412
Witness: Alan P. Buckley

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PACIFICORP, d/b/a Pacific Power & Light Company, Respondent.	DOCKET NO. UE-050684
In the Matter of the Petition of PacifiCorp, d/b/a Pacific Power & Light Company for an Order Approving Deferral of Costs Related to Declining Hydro Generation	DOCKET NO. UE-050412

EXHIBIT TO
TESTIMONY OF

ALAN P. BUCKLEY

For
STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Hydro Generation Difference

November 3, 2005

YOUR NATIONAL WEATHER SERVICE SPOKANE QUARTERLY REPORT

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The Weather Watcher

of the Inland Northwest

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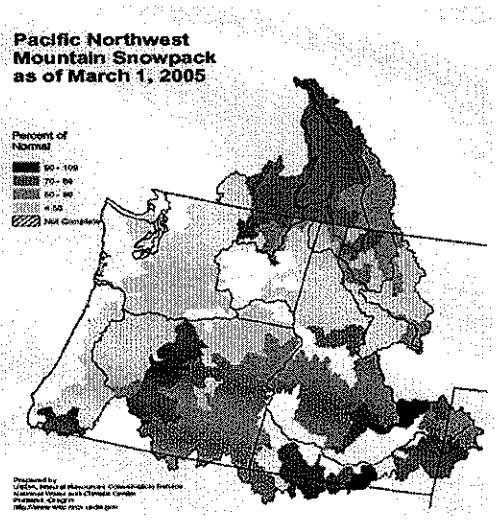
Impacts of the Lack of a Winter

An El Niño event was anticipated for this winter with mild temperatures and slightly below normal precipitation. Yet it had remained weak, even too weak to have projected an unusually dry winter with any statistical skill. There is also evidence that points to this El Niño not having played a major role in our winter weather. Through December 2004, there was a lack of persistent convection over the warm waters of the central equatorial Pacific, which had limited El Niño related impacts. Furthermore, according to the Climate Prediction Center (CPC), the weather for the Inland Northwest since early January was a result of unusual circulation patterns in the North Pacific Ocean that were not typical of El Niño events. This resulted in a lack of storm systems affecting the Inland Northwest, which is unusual for late winter. Although many folks did not mind the mild weather, the winter recreation community suffered with a short season. Now that spring is arriving, our attention will turn to the impacts of a record low snow pack.



Snow Pack

After significant snow in early January, a series of very warm storms brought an early snow melt to the mountains. Then the weather turned dry, and as of early March, there has not been a significant mountain snow fall in almost two months. This has resulted in record low water levels in the mountain snow pack. From the Cascade crest east to Idaho-Montana border, the mountain snow pack ranges from 15 to 40% of average.

Precipitation

February 2005 was the driest February on record across the Inland Northwest. Several locations, mainly in Washington, which normally receive plentiful precipitation, only saw less than a tenth of an inch. Chewelah, Quincy, Rosalia, and Smyna recorded no precipitation in February! Davenport, Newport, Ritzville and Northport only saw a trace of precipitation for the month, while Spokane reported a measly 0.04 inches. These amounts easily shattered long standing records for the driest February. Since the water year began last October, precipitation has been well below normal across the area, although not nearly as dry as the record winter of 1976-77.

Water Supply

With the record low snow pack, water supply forecasts are bleak. The main stem of the Columbia River is in the best shape, thanks to a closer to average snow pack at the headwaters of the river in British Columbia. The forecast stream flow volume at Grand Coulee is about 80% of average. The forecasts are much lower on rivers with headwaters in Washington and Idaho. For example, forecast volumes on the Methow and inflow into Lake Chelan are only 30% of average. On the Spokane River, volumes are forecast at only 47% of average this spring and summer.

With the lack of water and dry conditions forecast, drought conditions will be felt across the region through this summer. This will make for low flows on area rivers and streams, impacting agriculture, local fish and wildlife, with an increased risk for wild fires. The potential for spring flooding is very low, however as spring and summer approach, the flash flood season begins. During the last period of similar weather conditions, in the summer of 2001, there were several flash floods in the region, even in the middle of the drought.

The CPC has issued the long range outlook for the Inland Northwest for the upcoming spring months which include a greater chance of above normal temperatures and a greater chance of below normal precipitation. In addition, the weak El Niño event will begin to fade back to neutral conditions by late spring. ☼ *Charles Ross & John Werner*

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Editor's Notes

Welcome to Spring, arriving on March 20th! Just a reminder, the Weather Watcher is available on our web page. If any of you are interested in not receiving a paper copy in the mail and would rather read it online, please send an email to w-otx.webmaster@noaa.gov and your name will be taken off the newsletter mailing list.

If there is something you would like to see in the next newsletter or if you have comments about a past issue of the Weather Watcher, please contact Robin or Ken (509) 244-0110 extension 223.

The main purpose of this publication is to keep our readers informed about our services and programs, and to recognize those who help us accomplish our mission, including weather spotters, coop observers, media and emergency management.

All articles are written by the NWS staff and close contacts. A special thanks to John Livingston, Ron Miller, John Werner, Charles Ross, Ken Holmes and Todd Lericos for their contributions.

The 2004-2005 Winter in Review

While this three month period is titled "Winter", it hardly seems like we even had one this year. **December** started off on a normal foot. A couple of weather systems moved into the area during the first week. Spokane received a total of over 6" of snow during a four day period. The 8th was the snowiest day. Many locations north of Spokane, as well as in the Cascades and the Okanogan Valley, picked up around a foot of snow. Much of this snow quickly melted as temperatures warmed into the 40s and lower 50s. Little did we know at the time, that this would be all the measurable snow Spokane would receive for the month. Meanwhile, Lewiston hit a balmy 59°F on the 11th, just two degrees shy of the record for the day. In fact, Lewiston warmed to 32°F or above every day in December. Christmas wasn't a white one for most folks in the Inland Northwest. A storm dropping down from Canada brought light rain to many locations, with up to 10" of snow near the Canadian border in the towns of Northport and Evans. When it was all over, the month of December was much warmer and drier than normal.

January was divided into two very distinct weather regimes. The first half resembled a typical winter. Temperatures remained at or below normal as snowstorms persisted from the 6th through the 9th. The result was about a foot of new snow on the ground for many locations. Then came the arctic air from Canada. Temperatures on the 14th and 15th struggled to make it into the teens with overnight lows below zero. Some of the coldest readings included -23°F at Priest Lake, -18°F at Chewelah, Republic, and at the Turnbull National Wildlife Refuge near Cheney, -16°F at Newport, -14°F at Bonners Ferry and Winthrop.

The cold spell was short lived as a warm Pacific storm pushed out the bitter arctic air. The high temperature in Lewiston on the 16th was 27°F. The next day the mercury jumped to 51°F! The exception to this quick warm up occurred in the valleys of the Cascades, where the dense sub-freezing air remained bolted to the valley floors. A Pacific warm front slid over this freezing dome of cold air. Warm air aloft melted the falling snow resulting in an ice storm on the 17th. Several locations in the Cascades reported ice accumulations of a quarter inch or more. While freezing rain is not uncommon in many parts of the Inland Northwest, it is very rare in the Cascades. As the temperatures warmed, ice jams on rivers in the Idaho Panhandle as well as in the Cascades resulted in minor flooding. Heavy rain near the crest of the Cascades also caused some significant river rises.

While the first half of January was cold and snowy, the second half of the month was anything but that. Spokane reported temperatures in the 40s on 12 of the last 14 days of the month. Lewiston hit the 60°F mark twice in the latter half of the month, making it the warmest last two weeks of January ever!

February can be summed up in one word: dry! It was the driest February on record for nearly every location in the Inland Northwest. A large area of high pressure remained parked over the region, shunting Pacific storms either well to our north into Canada or to our south into California. However, rather than the usual fog and low clouds we commonly see in this pattern, there was a persistent dry flow from the north which kept the fog at bay. This resulted in sunny warm days and clear cold nights, more reminiscent of October than February.☼ *Ron Miller*

Winter Weather Statistics

Wenatchee Airport	Dec	Jan	Feb	Total
Avg High Temp	37.6	31.5	44.4	37.8
Departure from Norm	+4.1	-2.4	+5.8	+2.5
Avg Low Temp	29.5	23.2	27.0	26.6
Departure from Norm	+6.6	+1.4	+0.3	+2.8
Total Precip	1.02	1.00	0.18	2.20
Departure from Norm	-0.41	-0.14	-0.68	-1.23
Lewiston Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	43.9	44.2	49.8	46.0
Departure from Norm	+4.7	+4.8	+4.2	+4.6
Avg Low Temp	31.8	31.7	28.5	30.7
Departure from Norm	+3.3	+3.8	-2.7	+1.5
Total Precip	0.86	0.31	0.19	1.36
Departure from Norm	-0.19	-0.83	-0.76	-1.78
Spokane Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	36.4	34.5	44.7	38.3
Departure from Norm	+3.6	+1.7	+5.4	+3.6
Avg Low Temp	27.4	22.1	24.4	24.7
Departure from Norm	+5.8	+0.4	-1.3	+1.6
Total Precip	1.34	1.15	0.04	2.53
Departure from Norm	-0.91	-0.67	-1.47	-3.05
Total Snow	6.5	14.9	T	21.4
Departure from Norm	-8.6	+0.7	-6.7	-14.6

Answer: Both Antarctica and the Atacama Desert in Chile are ranked as the driest spots with a 0.01" or less of precipitation a year.

Exhibit B - Updated for September 20, 2005 Forecast
Deferral of Costs Related to Declining Hydro Generation
Washington's Allocated Share

			2005 Actual					2005 Forecast					
			March (1)	April	May	June	July	August	September	October	November	December	Total
Total Company													
Actual Hydro Generation (MWh)													
Company owned - West			96,656	310,555	362,202	213,400	161,686	163,574	135,715	199,047	370,342	451,315	2,464,492
Company owned - East			13,564	48,550	63,863	52,217	30,783	28,116	16,761	20,567	21,598	27,527	323,547
Mid Columbia			78,868	124,680	152,117	156,120	171,246	164,091	111,926	116,270	133,770	148,543	1,357,631
Total			189,088	483,785	578,182	421,737	363,715	355,781	264,402	335,884	525,710	627,385	4,145,670
Normalized Hydro Generation In Rates (MWh)													
Company owned - West			218,861	374,789	341,488	285,570	230,629	190,105	214,103	300,990	427,432	488,234	3,072,200
Company owned - East			21,398	49,050	57,668	51,976	51,678	47,960	36,776	33,436	34,336	35,024	419,303
Mid Columbia			91,959	166,077	169,754	187,208	186,065	165,745	114,348	118,715	154,715	176,284	1,530,871
Total			332,218	589,916	568,910	524,754	468,372	403,809	365,227	453,141	616,484	699,543	5,022,373
Hydro Generation Difference Normalized In Rates less Actual (MWh)													
Company owned - West			122,205	64,234	(20,714)	72,170	68,943	26,531	78,388	101,943	57,090	36,919	607,707
Company owned - East			7,834	500	(6,195)	(241)	20,895	19,844	20,015	12,869	12,738	7,497	95,756
Mid Columbia			13,091	41,397	17,637	31,088	14,819	1,654	2,422	2,445	20,945	27,741	173,240
Total			143,130	106,131	(9,272)	103,017	104,657	48,028	100,825	117,257	90,774	72,157	876,703
Price													
Market Rates (Per MWh)			$48.26	$50.59	$33.17	$31.53	$51.40	$58.52	$57.00	$57.82	$60.85	$65.23	
Jim Bridger Fuel Cost (Per MWH)			$8.40	$13.77	$9.79	$8.45	$9.62	$9.62	$9.62	$9.62	$9.62	$9.62	
Hermiston Fuel Cost (Per MWH)			$26.78	$26.28	$32.05	$26.18	$26.14	$26.14	$26.14	$26.14	$26.14	$26.14	
Weighting													
Market Rates			80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	
Jim Bridger Fuel Cost			10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Hermiston Fuel Cost			10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Total			100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Additional Cost / (Benefit) ($)													
Company owned - West			5,147,831	2,856,940	(636,349)	2,070,331	3,081,456	1,336,928	3,854,819	5,080,008	2,983,300	2,058,605	27,833,869
Company owned - East			330,001	22,253	(180,303)	(6,923)	933,943	999,957	984,237	641,273	665,651	418,020	4,798,109
Mid Columbia			551,464	1,841,209	541,817	891,833	662,328	83,350	119,101	121,853	1,094,515	1,546,864	7,454,333
Total			6,029,296	4,720,401	(284,836)	2,955,241	4,677,727	2,420,235	4,958,157	5,843,134	4,743,466	4,023,489	40,086,311
Washington Allocated Share ($)													
	MSP Factor	FY2004 %											
Company owned - West	DGP	16.8363%	866,704	481,003	(107,138)	348,567	518,803	225,089	649,009	855,285	502,277	346,593	4,686,194
Company owned - East	SG	8.6379%	28,505	1,922	(16,438)	(598)	80,673	86,375	85,017	55,393	57,498	36,108	414,456
Mid Columbia	MC	13.4166%	73,988	247,026	72,693	119,654	88,862	11,183	15,979	16,349	146,847	207,537	1,000,118
Total			969,197	729,953	(50,882)	467,623	688,338	322,647	750,006	927,026	706,622	590,238	6,100,768
Washington % of Total Deferral			**16%**	**15%**	**18%**	**16%**	**15%**	**13%**	**15%**	**16%**	**15%**	**15%**	**15%**

Footnote:
(1) Partial month calculation via March 17th filing

Staff Hydro Deferral Analysis
Deferral of Costs Related to Declining Hydro Generation
Hydro Generation Difference

Pacificorp Response to Staff Data Request No. 217, Attachment WUTC 217 a (Updated)

		2005 Actual					2005 Forecast					
		March	April	May	June	July	August	September	October	November	December	Total
	Total Company											
	Actual Hydro Generation (MWh)											
1	Company owned - West	96,656	310,555	362,202	213,400	161,686	163,574	135,715	199,047	370,342	451,315	2,464,492
2	Mid Columbia	78,868	124,680	152,117	156,120	171,246	164,091	111,926	116,270	133,770	148,543	1,357,631
3	Total	175,524	435,235	514,319	369,520	332,932	327,665	247,641	315,317	504,112	599,858	3,822,123
	Normalized Hydro Generation In Rates (MWh)											
4	Company owned - West	218,861	374,789	341,488	285,570	230,629	190,105	214,103	300,990	427,432	488,234	3,072,200
5	Mid Columbia	91,959	166,077	169,754	187,208	186,065	165,745	114,348	118,715	154,715	176,284	1,530,871
6	Total	310,820	540,866	511,242	472,778	416,693	355,850	328,451	419,705	582,147	664,518	4,603,070
	Hydro Generation Difference-Percentage Actual (or estimated) versus Normalized											
7	Company owned - West	44.16%	82.86%	106.07%	74.73%	70.11%	86.04%	63.39%	66.13%	86.64%	92.44%	80.22%
8	Mid Columbia	85.76%	75.07%	89.61%	83.39%	92.04%	99.00%	97.88%	97.94%	86.46%	84.26%	88.68%