

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

**PACIFIC POWER & LIGHT
COMPANY,**

Respondent.

**DOCKETS UE-140762 and UE-140617
(consolidated)**

In the Matter of the Petition of

**PACIFIC POWER & LIGHT
COMPANY,**

**For an Order Approving Deferral of
Costs Related to Colstrip Outage.**

DOCKET UE-131384 (consolidated)

In the Matter of the Petition of

**PACIFIC POWER & LIGHT
COMPANY,**

**For an Order Approving Deferral of
Costs Related to Declining Hydro
Generation.**

DOCKET UE-140094 (consolidated)

PACIFIC POWER & LIGHT COMPANY

EXHIBIT OF GREGORY N. DUVALL

Rebuttal Net Power Cost Analysis

November 2014

WAGRC March16 NPC Rebuttal Study

	Net Power Cost Analysis												
	04/15-03/16	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
	\$												
Special Sales For Resale													
Long Term Firm Sales													
Black Hills s27013/s28160	-	-	-	-	-	-	-	-	-	-	-	-	-
BPA Wind s42818	48,376,416	5,991,771	6,204,261	7,922,832	9,547,946	7,733,749	2,128,716	3,751,458	121,139	-	-	1,168,967	3,805,579
East Area Sales (WCA Sale)	-	-	-	-	-	-	-	-	-	-	-	-	-
Hurricane Sale s393046	-	-	-	-	-	-	-	-	-	-	-	-	-
LADWP (IPP Layoff)	118,434	7,536	8,983	8,589	13,661	13,336	11,296	10,083	7,876	8,745	7,889	8,154	12,287
Leaning Juniper Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-
NVE s811499	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Gas & Electric s524491	-	-	-	-	-	-	-	-	-	-	-	-	-
PSCO s100035	-	-	-	-	-	-	-	-	-	-	-	-	-
Salt River Project s322940	-	-	-	-	-	-	-	-	-	-	-	-	-
SCE s513948	-	-	-	-	-	-	-	-	-	-	-	-	-
SDG&E s513949	-	-	-	-	-	-	-	-	-	-	-	-	-
Shell Sale 2013-2014	-	-	-	-	-	-	-	-	-	-	-	-	-
SMUD s24296	-	-	-	-	-	-	-	-	-	-	-	-	-
UMPA II s45631	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Long Term Firm Sales	48,494,850	5,999,307	6,213,244	7,931,421	9,561,607	7,747,085	2,140,012	3,761,541	129,015	8,745	7,889	1,177,121	3,817,865
Short Term Firm Sales													
COB	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado	-	-	-	-	-	-	-	-	-	-	-	-	-
Four Corners	-	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-	-
Mead	-	-	-	-	-	-	-	-	-	-	-	-	-
Mid Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-
Mona	-	-	-	-	-	-	-	-	-	-	-	-	-
NOB	-	-	-	-	-	-	-	-	-	-	-	-	-
Palo Verde	-	-	-	-	-	-	-	-	-	-	-	-	-
SP15	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-	-
West Main	-	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Swaps Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
STF Trading Margin	364,294	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358
STF Index Trades	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Short Term Firm Sales	364,294	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358	30,358
System Balancing Sales													
COB	36,691,212	1,870,863	1,580,322	1,373,306	4,405,538	4,109,047	3,934,276	2,540,044	3,008,446	3,579,228	3,923,078	3,440,284	2,926,780
Four Corners	-	-	-	-	-	-	-	-	-	-	-	-	-
Mead	-	-	-	-	-	-	-	-	-	-	-	-	-
Mid Columbia	11,457,160	298,000	80,290	22,029	1,368,668	1,661,440	1,939,428	1,623,936	909,392	712,990	917,673	955,633	967,461
Mona	-	-	-	-	-	-	-	-	-	-	-	-	-
NOB	-	-	-	-	-	-	-	-	-	-	-	-	-
Palo Verde	-	-	-	-	-	-	-	-	-	-	-	-	-
SP15	-	-	-	-	-	-	-	-	-	-	-	-	-
Trapped Energy	11,890	3,134	464	122	-	39	2,588	5,495	-	-	-	-	48
Total System Balancing Sales	48,160,262	2,171,997	1,661,076	1,395,457	5,774,226	5,770,526	5,876,292	4,169,475	3,917,838	4,292,218	4,840,751	4,396,117	3,894,288
Total Special Sales For Resale	97,019,406	8,201,662	7,904,678	9,357,235	15,366,190	13,547,968	8,046,662	7,961,373	4,077,211	4,331,321	4,878,998	5,603,596	7,742,511

PacificCorp

12 months ended March 2016

WAGRC March16 NPC Rebuttal Study

12 months ended March 2016	Net Power Cost Analysis												
	04/15-03/16	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Qualifying Facilities													
QF California	6,984,613	1,013,415	1,028,361	797,638	379,393	282,261	261,584	263,742	292,211	436,307	655,471	754,090	820,140
QF Idaho													
QF Oregon	26,514,531	2,688,713	2,782,984	2,492,022	2,169,944	2,027,320	2,070,553	1,851,778	1,624,967	2,033,951	2,220,421	2,136,161	2,415,716
QF Utah													
QF Washington	579,500	31,352	47,095	68,317	84,596	89,107	76,402	43,365	27,078	27,022	28,403	28,399	28,364
QF Wyoming													
Biomass One QF	14,394,882	718,405	723,393	718,402	1,424,771	1,429,423	1,404,789	1,440,568	1,181,511	1,268,761	1,367,290	1,323,885	1,393,695
Butter Creek Wind QF													
Champion Blue Mtn Wind QF													
Chevron Wind p49335 QF													
Co-Gen II													
DCFP p316701 QF	185,544	12,000	20,907	17,726	18,732	18,873	16,133	25,051	16,533	7,716	12,436	9,164	10,273
Co-Gen II p349170 QF													
Evergreen BioPower p351030 QF	2,565,401	141,532	157,092	168,446	270,667	277,225	255,464	282,103	211,801	218,757	200,375	201,385	180,553
ExxonMobil p25042 QF													
Five Pine Wind QF													
Kennecott Refinery QF													
Kennecott Smelter QF													
Laiigo Wind Park QF													
Long Ridge Wind I QF													
Long Ridge Wind II QF													
Mariah Wind QF													
Orem Family Wind QF													
North Point Wind QF													
OMI Power I Geothermal QF													
Oregon Wind Farm QF	11,866,536	1,170,368	1,187,991	1,389,764	1,420,408	1,070,425	881,619	901,747	1,036,952	356,535	688,544	787,034	975,150
Pioneer Wind Park I QF													
Pioneer Wind Park II QF													
Power County North Wind QF p5756													
Power County South Wind QF p5756													
Roseburg Dillard QF	1,008,864	46,634	28,145	32,491	148,637	112,036	86,563	37,705	84,421	106,072	133,139	128,296	64,724
SF Phosphates													
Spanish Fork Wind 2 p311681 QF													
Sunnyside p83997/p59965 QF													
Tresoro QF													
Threemile Canyon Wind QF p500133	2,101,491	167,021	212,401	199,278	177,403	174,888	165,712	193,399	149,917	156,781	152,602	169,399	182,689
US Magnesium QF													
Qualifying Facilities Total	66,201,363	5,989,440	6,188,370	5,884,084	6,094,552	5,481,557	5,218,820	5,039,448	4,625,391	4,611,903	5,458,682	5,537,814	6,071,302
Mid-Columbia Contracts													
Douglas - Weils p06028	3,666,109	304,430	304,430	304,430	304,430	304,430	309,137	309,137	309,137	309,137	309,137	309,137	309,137
Grant Reasonable	(5,542,336)	(444,608)	(444,608)	(444,608)	(444,608)	(444,608)	(444,608)	(444,608)	(444,608)	(444,608)	(513,621)	(513,621)	(513,621)
Grant Surplus p258951	2,008,900	166,609	166,609	166,609	166,609	166,609	166,609	166,609	166,609	166,609	169,805	169,805	169,805
Mid-Columbia Contracts Total	152,673	26,432	26,432	26,432	26,432	26,432	31,138	31,138	31,138	31,138	(34,679)	(34,679)	(34,679)
Total Long Term Firm Purchases	159,129,217	13,371,764	11,805,052	10,888,101	14,547,369	14,152,864	13,159,570	13,880,175	13,235,373	13,398,123	13,760,071	13,096,948	13,833,907

WAGRC March16 NPC Rebuttal Study

PacifiCorp	12 months ended March 2016	Net Power Cost Analysis													
		04/15-03/16	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	
Storage & Exchange															
APS Exchange p68118/s58119		-	-	-	-	-	-	-	-	-	-	-	-	-	-
BPA FC II Wind p63507		-	-	-	-	-	-	-	-	-	-	-	-	-	-
BPA FC IV Wind p79207		-	-	-	-	-	-	-	-	-	-	-	-	-	-
BPA So. Idaho p64885/p63975/p647		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cowlitz Swift p65787		-	-	-	-	-	-	-	-	-	-	-	-	-	-
EWEB FC I p63508/p63510		-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSCO Exchange p340325		-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSCO FC III p63362/s63361		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redding Exchange p66276		-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCL State Line p105228		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Storage & Exchange		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Firm Purchases															
Mid Columbia	3,856,780	3,078,100	-	-	-	-	-	778,680	-	-	-	-	-	-	-
STF Electric Swaps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STF Index Trades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Short Term Firm Purchases	3,856,780	3,078,100	-	-	-	-	-	778,680	-	-	-	-	-	-	-
System Balancing Purchases															
COB	5,132,444	315,360	533,362	931,014	396,767	18,112	244,464	335,755	262,311	804,883	699,715	88,591	502,111	-	-
Four Corners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mid Columbia	72,747,131	6,360,737	11,654,269	12,327,824	9,170,018	8,029,761	2,052,926	2,857,581	2,913,971	4,124,417	3,004,217	4,033,712	6,217,701	-	-
Mona	-	-	-	-	-	-	-	-	-	78,713	-	-	1,147	-	-
NOB	161,621	22,884	10,749	25,791	22,338	-	-	-	-	-	-	-	-	-	-
Palo Verde	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Emergency Purchases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total System Balancing Purchases	78,041,196	6,698,981	12,198,380	13,284,629	9,589,123	8,047,872	2,297,390	3,193,336	3,176,281	5,008,012	3,703,931	4,122,303	6,720,958	-	-
Total Purchased Power & Net Inter	241,027,193	23,148,844	24,003,432	24,172,730	24,136,491	22,200,736	15,456,960	17,852,191	16,411,654	18,406,136	17,464,002	17,219,151	20,554,865	-	-

WAGRC March16 NPC Rebuttal Study

12 months ended March 2016	Net Power Cost Analysis												
	04/15-03/16	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Wheeling & U. of F. Expense													
Firm Wheeling	108,922,013	8,750,983	8,925,435	9,099,298	9,417,351	8,900,472	8,998,228	9,109,000	9,189,416	9,078,003	9,224,523	9,124,175	9,125,129
ST Firm & Non-Firm	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Wheeling & U. of F. Expense	108,922,013	8,750,983	8,925,435	9,099,298	9,417,351	8,900,472	8,998,228	9,109,000	9,189,416	9,078,003	9,224,523	9,124,175	9,125,129
Coal Fuel Burn Expense													
Carbon	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholla	-	-	-	-	-	-	-	-	-	-	-	-	-
Colstrip	8,308,649	702,891	722,024	439,968	726,070	726,752	703,080	726,751	702,739	726,854	726,262	679,031	726,228
Craig	-	-	-	-	-	-	-	-	-	-	-	-	-
Dave Johnston	-	-	-	-	-	-	-	-	-	-	-	-	-
Hayden	-	-	-	-	-	-	-	-	-	-	-	-	-
Hunter	-	-	-	-	-	-	-	-	-	-	-	-	-
Huntington	-	-	-	-	-	-	-	-	-	-	-	-	-
Jim Bridger	-	-	-	-	-	-	-	-	-	-	-	-	-
Naughton	239,012,112	17,336,807	15,976,421	17,772,739	22,343,501	21,781,091	20,856,190	22,040,970	21,020,768	21,258,365	20,349,887	19,743,043	18,532,329
Wyodak	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Coal Fuel Burn Expense	247,320,762	18,039,698	16,698,445	18,212,707	23,069,571	22,507,843	21,589,271	22,767,721	21,723,507	21,985,219	21,076,149	20,422,074	19,258,557
Gas Fuel Burn Expense													
Chehalis	37,956,490	209,333	-	-	5,746,964	7,240,379	4,945,092	3,745,535	2,066,072	4,617,492	4,789,780	3,752,804	843,038
Current Creek	-	-	-	-	-	-	-	-	-	-	-	-	-
Gadsby	-	-	-	-	-	-	-	-	-	-	-	-	-
Gadsby CT	-	-	-	-	-	-	-	-	-	-	-	-	-
Hermiston	36,286,355	2,521,981	737,155	65,384	3,458,221	3,740,879	3,204,635	4,031,469	3,748,469	4,026,914	3,977,082	3,446,600	3,327,568
Lake Side 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Lake Side II	-	-	-	-	-	-	-	-	-	-	-	-	-
Little Mountain	-	-	-	-	-	-	-	-	-	-	-	-	-
Naughton - Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Gas Fuel Burn	74,242,845	2,731,314	737,155	65,384	9,205,185	10,981,258	8,149,726	7,777,004	5,814,541	8,644,406	8,766,862	7,199,404	4,170,606
Gas Physical	-	-	-	-	-	-	-	-	-	-	-	-	-
Gas Swaps	(385,200)	-	-	-	-	-	-	-	(62,550)	(113,925)	(98,735)	(59,305)	(50,685)
Clay Basin Gas Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Pipeline Reservation Fees	17,513,624	1,440,155	1,480,346	1,440,155	1,480,346	1,480,346	1,440,155	1,480,346	1,440,155	1,480,346	1,480,346	1,390,584	1,480,346
Total Gas Fuel Burn Expense	91,371,270	4,171,469	2,217,501	1,505,539	10,695,531	12,461,604	9,589,881	9,257,350	7,192,146	10,010,826	10,148,472	8,630,683	5,600,267
Other Generation													
Blundell	-	-	-	-	-	-	-	-	-	-	-	-	-
Integration Charge	1,101,940	89,914	92,762	97,871	98,573	91,935	82,248	86,808	89,556	84,784	94,453	86,219	106,816
Total Other Generation	1,101,940	89,914	92,762	97,871	98,573	91,935	82,248	86,808	89,556	84,784	94,453	86,219	106,816
Net Power Cost	592,723,771	45,999,246	44,032,896	43,730,910	52,041,328	52,614,622	47,639,926	51,111,697	50,509,088	55,233,647	53,128,602	49,778,707	46,903,123
Net Power Cost/Net System Load	29.61	29.64	28.55	28.49	30.34	31.04	30.86	32.36	30.01	29.10	27.98	29.43	27.84