BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON
PACIFICORP
2008 TRANSITION ADJUSTMENT MECHANISM (TAM) Direct Testimony and Exhibits
April 2007

Case UE-Exhibit PPL/100 Witness: Andrea L. Kelly

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Direct Testimony of Andrea L. Kelly
POLICY

April 2007

- 1 Q. Please state your name, business address and present position with
- 2 PacifiCorp, dba Pacific Power & Light Company (the Company).
- 3 A. My name is Andrea L. Kelly. My business address is 825 NE Multnomah St.,
- Suite 2000, Portland, OR 97232. I am employed by PacifiCorp as Vice President
- 5 of Regulation.
- 6 Qualifications
- 7 Q. Briefly describe your education and business experience.
- 8 A. I hold a Bachelor's degree in Economics from the University of Vermont and an
- 9 MBA in Environmental and Natural Resource Management from the University
- of Washington. After graduate school, I joined the Staff of the Washington
- 11 Utilities and Transportation Commission. In 1995, I became employed by
- PacifiCorp as a Senior Pricing Analyst in the Regulation Department and
- advanced through positions of increasing responsibility. From 1999 to 2005, I led
- major strategic projects at PacifiCorp including the Multi-State Process (MSP)
- and the regulatory approvals for the MidAmerican-PacifiCorp transaction. In
- March 2006, I was appointed Vice President of Regulation.
- 17 Q. Have you appeared as a witness in previous regulatory proceedings?
- 18 A. Yes. I have appeared as a witness on behalf of PacifiCorp in the states of Oregon,
- 19 Idaho, Utah, Washington and Wyoming. In addition, I sponsored testimony in
- various proceedings as a member of the Washington Commission Staff.
- 21 **Purpose of Testimony**
- 22 Q. What is the purpose of your testimony in this proceeding?
- 23 A. The purpose of my testimony is to present an overview of PacifiCorp's 2008

1		Transition Adjustment Mechanism (TAM) filing and net power costs update.
2		Specifically, my testimony:
3		• Summarizes the purpose and contents of the filing,
4		• Explains how the filing comports with previous Commission orders and
5		the all-party stipulation in PacifiCorp's most recent general rate case,
6		Docket UE 179,
7		• Describes, at a high level, the calculation of the Transition Adjustment
8		and the amount of the change in net power costs for the forecast test
9		period, calendar year 2008, on an Oregon-allocated basis,
10		• Explains the updated allocation factors used to determine Oregon's
11		allocated share, and
12		• Introduces the Company's other witnesses.
13	Sumi	mary of PacifiCorp's 2008 TAM Filing
14	Q.	Why is the Company making this filing?
15	A.	The Commission's final order, Order No. 05-1050, in Docket UE 170 adopted
16		PacifiCorp's permanent TAM. PacifiCorp's approved TAM uses PacifiCorp's
17		GRID model to set the Transition Adjustment for direct access through an annual
18		power cost filing and a series of updates to reset rates. Pursuant to the
19		Commission's order in UE 170, the Company's annual power cost filing is due
20		each April. The Company is submitting the current filing in compliance with that
21		order.
22	Q.	How does this filing comport with previous Commission orders?
23	A.	PacifiCorp's TAM, as adopted by the Commission, requires PacifiCorp's annual

1		TAM filing and net power cost update to include testimony and exhibits
2		providing PacifiCorp's estimated net power costs, the Transition Adjustment
3		calculation, and GRID model updates. Specifically, the net power cost estimate
4		incorporates the following updates: (1) forward price curve; (2) forecast loads;
5		(3) normalized hydro generation; (4) forecast fuel prices; (5) contract updates; (6)
6		heat rates, planned outages, and de-rates; (7) wheeling expenses; (8) new resource
7		acquisitions; and (9) state allocation factors. Additionally, the testimony must
8		include an explanation of the primary drivers of variations in net power costs
9		since the last approved filing, a comparison of existing and estimated customer
10		rates, and a review of PacifiCorp's compliance with prior Commission orders.
11		Each of these elements is included in this filing, or in the case of the actual
12		Transition Adjustment calculation, will be filed when the information is available.
13	Q.	Does this filing comply with the settlement in the Company's most recent
14		general rate case?
15	A.	Yes. The stipulation agreed upon by the parties in Docket UE 179 and approved
16		by the Commission in Order No. 06-530 included agreement to an Oregon-
17		allocated cap on the net power cost update of \$10 million for the 2007 TAM. It
18		did not cap or otherwise alter the calculation of the Transition Adjustment or net
19		power cost update for years subsequent to 2007. In addition, while the settlement
20		included a general rate case stay-out through September 2007, it specifically
21		excluded the Company's 2007 filing for its 2008 TAM from this stay-out.

1 Schedule of Filings

- 2 Q. Please describe the schedule of PacifiCorp filings for the Transition
- 3 Adjustment in this case.
- 4 A. As adopted in Order 05-1050, the Company's annual Transition Adjustment filing
- and net power cost update includes additional filings in July, October and
- November. Mr. Widmer's testimony describes the items that will be addressed in
- 7 the additional filings. The Company expects that the exact dates for these filings,
- as well as other procedural milestones, will be determined by the Commission at
- 9 the scheduling hearing in this proceeding.

10 **2008 TAM Calculation and Net Power Cost Update**

- 11 Q. Please summarize briefly PacifiCorp's Transition Adjustment calculation.
- 12 A. At the highest level, PacifiCorp's TAM is the difference between the weighted
- market value of the energy previously used to serve Direct Access customers and
- the cost of service rate under the customers' specific, energy-only tariff
- schedules. To determine the value of the energy previously used to serve
- departing customers, PacifiCorp runs two studies using its GRID model for each
- customer class. The base study optimizes PacifiCorp's system with the full
- expected load for the next calendar year. The second study re-optimizes the
- system with a 25 MW reduction in Oregon load. PacifiCorp then compares the
- 20 two studies to determine the weighted market value of the energy associated with
- departing Direct Access load. Any variance greater than \$250,000 between the
- assumed 25 MW and the actual amount of Direct Access participation is captured
- 23 through a balancing account.

1	Q.	What is the estimated amount of the increase in net power costs upon which
2		the Transition Adjustment will be based for calendar year 2008?
3	A.	On an Oregon-allocated basis, the Company's forecasted normalized net power
4		costs for calendar year 2008 are approximately \$253 million. This is
5		approximately \$36 million higher than the net power costs in Oregon rates for
6		2007. As explained in Ms. Ridenour's testimony, this would result in an overall
7		increase to net rates of approximately 3.9 percent.
8	Upd	ate of Inter-jurisdictional Allocation Factors
9	Q.	Has the Company used updated Oregon allocation factors in its TAM filing?
10	A.	Yes. The estimate of net power costs reflects changes in the Company's retail
11		loads and resources. Given these changes, it is necessary to update inter-
12		jurisdictional allocation factors in order to properly allocate system-wide net
13		power costs.
14	Q.	What is the effect of updating the allocation factors in connection with this
15		filing?
16	A.	The use of updated allocation factors significantly reduces the level of the power
17		cost increase allocated to Oregon. Without this update to the allocation factors,
18		Oregon's TAM increase for 2008 would be approximately \$9 million higher.
19	Q.	Please describe Exhibit PPL/101.
20	A.	Exhibit PPL/101 is a table titled "Allocated NPC to Oregon for TAM." The table
21		shows: (1) total Company net power costs by account for sales for resale,
22		purchased power, wheeling expense and fuel expense for UE 179 and for calendar
23		year 2008; (2) the allocation factors used in UE 179 and the updated allocation

1		factors for calendar year 2008; and (3) the Oregon-allocated net power costs for
2		each account category based on the allocation factors used in UE 179 and the
3		factors for calendar year 2008.
4	Intro	oduction of Witnesses
5	Q.	Please list the Company witnesses and provide a brief explanation of the
6		witnesses' testimony.
7	A.	The other Company witnesses filing direct testimony are:
8		Mark T. Widmer, Director, Net Power Costs, presents the Company's proposed
9		2008 TAM net power costs. He describes the primary drivers of variations in net
10		power costs since UE 179, the general operation of the GRID model, and the
11		updates to the model included in GRID version 6.1. Mr. Widmer also sponsors
12.		the model outputs.
13		Judith M. Ridenour, Senior Analyst, Pricing & Cost of Service, presents the
14		Company's proposed prices and tariffs and provides a comparison of existing and
15		estimated customer rates.
16	Q.	Does this conclude your direct testimony?

17

A.

Yes.

Case UE-Exhibit PPL/101

Witness: Andrea L. Kelly

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

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Exhibit Accompanying Direct Testimony of Andrea L. Kelly ALLOCATED NPC TO OREGON FOR TAM

Allocated NPC to Oregon for TAM

		TOTAL CO	MPANY		FACT	OR	OREG	ON
	ACCOUNT	<u>UE-179</u>	CY 2008		<u>UE-179</u>	CY 2008	<u>UE-179</u>	CY 2008
Sales for Resale								
Existing Firm PPL	447	23,123,175	23,110,642	SG	26.628%	25.977%	6,157,211	6,003,550
Existing Firm UPL	447	26,117,156	26,154,379	SG	26.628%	25.977%	6,954,444	6,794,234
Post-Merger Firm	447	1,094,616,116	1,318,759,054	SG	26.628%	25.977%	291,473,037	342,579,648
Non-Firm	447	-	-	SE	26.173%	25.465%	-	-
Total Sales for Resale	_	1,143,856,447	1,368,024,075				304,584,692	355,377,432
Purchased Power								
Existing Firm Demand PPL	555	63,649,124	76,033,224	SG	26.628%	25.977%	16,948,411	19,751,474
Existing Firm Demand UPL	555	47,595,741	49,730,218	SG	26.628%	25.977%	12,673,736	12,918,630
Existing Firm Energy	555	78,021,182	83,752,187	SE	26.173%	25.465%	20,420,221	21,327,820
Post-merger Firm	555	947,713,159	1,074,187,128	SG	26.628%	25.977%	252,355,897	279,046,159
Secondary Purchases	555	-	-	SE	26.173%	25.465%	-	-
Seasonal Contracts	555	44,235,280	9,221,790	SSGC	23.825%	23.563%	10,539,251	2,172,918
Total Purchased Power	_	1,181,214,486	1,292,924,547			•	312,937,516	335,217,001
Wheeling Expense								
Existing Firm PPL	565	42,039,735	34,426,827	SG	26.628%	25.977%	11,194,289	8,943,203
Existing Firm UPL	565	198,710	157,430	SG	26.628%	25.977%	52,912	40,896
Post-merger Firm	565	48,368,652	72,828,352	SG	26.628%	25.977%	12,879,545	18,918,931
Non-Firm	565	446,477	307,719	SE	26.173%	25.465%	116,855	78,362
Total Wheeling Expense	-	91,053,574	107,720,328				24,243,602	27,981,392
Fuel Europe								
Fuel Expense Fuel Consumed - Coal	501	447,180,849	489,930,407	SE	26.173%	25.465%	117,039,135	124,762,683
Fuel Consumed - Gas	501	10,766,277	23,414,773	SE	26.173%	25.465%	2,817,821	5,962,663
Steam from Other Sources	503	4,879,874	4,429,953	SE	26.173%	25.465%	1,277,193	1,128,105
Natural Gas Consumed	547	165,059,567	371,316,268	SE	26.173%	25.465%	43,200,484	94,557,131
Simple Cycle Combustion Turbines	547 547	34,791,053	28,436,425	SSECT	25.738%	23.496%	8,954,668	6,681,432
Cholla / APS Exchange	501	48,262,912	52,849,931	SSECH	26.731%	23.496%	12,901,207	12,417,638
Total Fuel Expense	301	710,940,533	970,377,757	OOLOH	20.70170	20.40070	186,190,508	245,509,651
Impact of Cap in UE-179	-	(4,952,146)		/1	26.400%		(1,307,380)	
Net Power Cost	-	834,400,000	1,002,998,558				217,479,553	253,330,612

Difference from UE-179:

35,851,059

Note:

/1 weighted 50%SG / 50%SE: (26.628% + 26.173%)/2

Case UE-Exhibit PPL/200

Witness: Mark T. Widmer

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Direct Testimony of Mark T. Widmer NET POWER COSTS

April 2007

1	Q.	Please state your name, business address and present position with
2		PacifiCorp, dba Pacific Power and Light Company (the Company).
3	A.	My name is Mark T. Widmer, my business address is 825 NE Multnomah St.,
4		Suite 600, Portland, Oregon 97232, and my present title is Director, Net Power
5		Costs.
6	Qua	lifications
7	Q.	Briefly describe your education and business experience.
8	A.	I received an undergraduate degree in Business Administration from Oregon State
9		University. I have worked for PacifiCorp since 1980 and have held various
10		positions in the power supply and regulatory areas. I was promoted to my present
11		position in September 2004.
12	Q.	Please describe your current duties.
13	A.	I am responsible for the coordination and preparation of net power cost and
14		related analyses used in retail price filings. In addition, I represent PacifiCorp on
15		power resource and other various issues with intervenor and regulatory groups in
16		the six state regulatory commissions which have jurisdiction over PacifiCorp.
17	Sum	mary of Testimony
18	Q.	Will you please summarize your testimony?
19	A.	I present the Company's proposed 2008 Transition Adjustment Mechanism
20		(TAM) net power costs. In addition, my testimony:
21		• Describes the primary drivers of the increase in the Company's net power
22		costs.
23		• Describes the Generation and Regulation Initiatives Decision Tools (GRID)

1		model and the updates to it used to calculate the net power costs in this filing.
2		• Sponsors as an exhibit the GRID model Net Power Cost report that supports
3		this filing.
4	Net P	ower Cost Results and Primary Cost Drivers
5	Q.	What are the forecasted normalized system-wide net power costs for the test
6		period?
7	A.	The Company's total forecasted normalized system-wide net power costs for the
8		test period (12 months ended December 31, 2008) are approximately \$1.002
9		billion.
10	Q.	How do the 2008 system-wide net power costs compare with the level
11		currently included in rates?
12	A.	The Company's 2008 system-wide net power costs are approximately \$168
13		million higher than the \$834 million included in current rates through the 2007
14		TAM.
15	Q.	What are the primary drivers of the increase in net power costs?
16	A.	The five primary drivers of the cost increases are higher coal prices, higher gas
17		costs, the expiration of the 2007 TAM cap, expiring purchase power contracts and
18		system load growth.
19	Q.	Please explain PacifiCorp's coal fuel price increases.
20	A.	The coal price increases at our generation facilities are being driven by a variety
21		of factors, including normal increases in contract price indices and the impact of
22		contract re-openers, market price increases for Powder River Basin coal, the
23		acquisition of higher-priced compliance coal necessary to meet environmental

1		standards, and increases in union labor costs.
2	Q.	Have coal costs been increasing throughout the electric utility industry?
3	A.	Yes. The Fall 2006 Long-Term Outlook For Coal and Competing Fuels report
4		from Energy Ventures Analysis found:
5 6 7 8 9 10 11 12 13		On the supply side, there has been a step increase in production costs. Declining productivity is responsible for much of the increase. Declining productivity has been caused by such factors as the high market price, deteriorating reserve conditions, and the introduction of new, inexperienced workers. Other factors have also contributed to higher costs such as higher labor costs, higher supply costs, and higher costs for safety compliance, bonding, permitting, mineral and insurance. While some of these factors are expected to moderate with a return to market equilibrium, the stark reality is that the floor in coal prices has substantially increased.
16	Q.	Please explain the sources of the increase in PacifiCorp's gas costs.
17	A.	Gas prices have generally trended sharply upward over the last several years, but
18		they remain volatile, with price spikes and price softening. This makes hedging
19		to manage extreme gas price changes an important risk mitigation tool.
20		PacifiCorp's gas costs reflect market prices, plus cost increases or decreases to
21		reflect PacifiCorp's hedged position. In PacifiCorp's 2007 TAM, PacifiCorp's
22		hedged position decreased its gas costs; PacifiCorp's 2008 TAM reflects gas costs
23		that are somewhat higher because of PacifiCorp's hedged position. PacifiCorp's
24		gas costs for 2007 were hedged before Hurricane Katrina-related market price
25		increases; PacifiCorp's 2008 natural gas costs were hedged after the market

26

volatility caused by Hurricane Katrina.

1	Q.	How was the level of net power costs for 2007 impacted by the \$10 million
2		cap on the 2007 TAM increase?
3	A.	Absent the cap, which applied only to the 2007 TAM, total system net power
4		costs for 2007 would have been approximately \$40 million higher based upon the
5		updates contained in PacifiCorp's final 2007 TAM filing. Thus, when comparing
6		the magnitude of the 2008 net power cost forecast of \$1.002 billion with the 2007
7		TAM of \$834.4 million, it is important to keep in mind the additional \$40 million
8		of 2007 net power costs that were not recovered through the 2007 TAM.
9	Q.	Why do expiring purchase power contracts increase net power costs?
10	A.	The Company's purchase power contracts generally reflect wholesale electric
11		market prices at the time they were executed. As wholesale electric market prices
12		increase, the cost of replacement power increases when a contract expires.
13		PacifiCorp's 2008 TAM reflects the impact of the expiration of various contracts,
14		including the 400 MW TransAlta contract, and the increased costs of replacement
15		power associated with these expiring contracts.
16	Q.	How does increased demand impact the Company's 2008 power costs?
17	A.	This filing reflects an increase of 2.8 percent over loads currently reflected in
18		rates. As explained by Ms. Kelly, however, the impact of load growth on this
19		filing is mitigated by application of updated allocation factors which reduce
20		Oregon's proportionate share of system power costs.

- Q. Are the cost increases in PacifiCorp's 2008 TAM partially offset by the inclusion of the relatively low variable costs from a new thermal plant expected to be in service during the test period?
- A. Yes. The 2008 net power costs reflect the addition of the 525 MW Lakeside

 combined cycle combustion turbine ("CCCT") facility which is expected to be

 fully in service by the end of June 2007. The capital costs of this facility were not

 included in the Company's last general rate case because it was not in service at

 the start of the rate period. Therefore, Oregon customers will only pay the

 relatively low variable costs associated with this resource until the capital costs of

 the resource are included in rates in the Company's next general rate case.
- 11 Q. Are the cost increases in PacifiCorp's 2008 TAM partially offset by the
 12 inclusion of the variable costs from renewable energy facilities expected to be
 13 in service during the test period?
- 14 Α. Yes. The net power costs include forecasted kWh output of 56 MW Goodnoe West and 56 MW Goodnoe East wind generation facilities located in Oregon, 15 which will be in service December 2007, and the 140 MW Marengo wind 16 17 generation facility located in Washington, which is presently expected to be in service July 2007. The net power costs also continue to include the forecasted 18 19 output of the 100 MW Leaning Juniper wind facility that came on line in Fall 20 2006. Because PacifiCorp owns the wind facilities, the variable cost of the kWh included in the net power costs is zero. Thus, customers will be receiving the 21 22 benefits of these zero cost kWhs via the TAM. If additional renewable resources are acquired and expected to be in-service prior to the start of the test year, the 23

1 Company will update its net power costs estimates to include these resources as 2 contemplated by the TAM methodology. 3 Q. Are customers paying any of the capacity or fixed costs of the 877 MW from 4 these new thermal and renewable energy facilities? No, the capacity and fixed costs of ownership of these facilities have not vet been 5 A. 6 included in rates and are not currently being recovered through the TAM or other adjustment mechanism. This creates a mismatch of costs and benefits. 7 8 Q. Please describe the process for updating net power cost estimates in the 9 remainder of this proceeding. 10 At the end of July, the Company will file to update net power costs to reflect: A. 11 (1) the current forward price curve, (2) new contracts and/or updates for wholesale sales, purchases, fuel and wheeling expenses. In October, prior to the 12 13 posting of indicative prices, the Company will update net power costs to reflect 14 changes to Commission-ordered net power costs, the current forward price curve, new contracts and/or updates for wholesale sales, purchases, fuel and wheeling 15 expenses through September 15. In November, just prior to the direct access open 16 17 enrollment window, the Company will produce a final GRID study incorporating 18 its most recent forward price curve. This final GRID study will establish the 19 Transition Adjustment and total Company net power costs for calendar year 2008. 20 **Determination of Net Power Costs Using GRID Version 6.1** 21 O. Please explain net power costs. 22 Net power costs are defined as the sum of fuel expenses, wholesale purchase A.

power expenses and wheeling expenses, less wholesale sales revenue.

23

- 1 Q. Please explain how the Company calculates net power costs.
- 2 A. Net power costs are calculated for a future test period based on projected data
- 3 using the GRID model. For each hour in the forecast period the model simulates
- 4 the operation of the power supply portion of the Company under a variety of
- 5 stream flow conditions. The results obtained from the various stream flow
- 6 conditions are averaged and the appropriate cost data is applied to determine an
- 7 expected net power cost under normal stream flow and weather conditions for the
- 8 forecast period.
- 9 Q. Is the Company's general approach to the calculation of net power costs
- using the GRID model the same in this case as in previous cases?
- 11 A. Yes. The Company has used the GRID model in its last several rate case filings
- in Oregon. My testimony in the Company's last general rate case, Oregon Docket
- UE 179, includes an extensive explanation of the GRID model, the inputs used to
- develop net power costs and the model output. Because none of this general
- background on the GRID has changed since UE 179, instead of including GRID
- background testimony in this case, I will refer parties who are interested in this
- background to my previous testimony in UE 179.
- 18 Q. Is the Company using an updated version of the GRID model as compared to
- 19 **Oregon Docket UE 179?**
- 20 A. Yes. In advance of this filing, the Company notified the Industrial Customers of
- 21 Northwest Utilities, Citizens' Utility Board and Staff of its intention to use GRID
- version 6.1 for its 2008 TAM filing. No party objected to its use for the initial
- filing; however, parties reserved the right to review the updated version to ensure

1		that the changes are consistent with the intent of the TAM.
2	Q.	Please generally describe the improvements in the GRID model reflected in
3		version 6.1.
4	A.	GRID Release 6.1 provides greater precision in commitment logic, enhanced heat
5		rate data series functionality and enhanced functionality for greater analyst
6		efficiency. On balance, these improvements result in a slight decrease to the
7		Company's net power costs. The Company provided a detailed description of the
8		code changes to Oregon stakeholders when GRID Release 6.1 was placed into
9		production.
10	Q.	Please explain these three changes to the GRID model in more detail,
11		including whether they impact net power costs.
12	A.	The first is a change in commitment logic, so that if the marginal unit's reference
13		market is illiquid, the model does not calculate a reserve credit. This change has
14		only a minimal impact on power costs.
15		The second change replaces the Thermal Heat Rate data series with a Heat
16		Rate Coefficient data series. The model calculates the heat rate curve within the
17		model. The new data series is a timed attribute data series. This allows the
18		analyst to change Huntington Unit 2's curve to reflect the impact of the new
19		scrubber without maintaining two different data series. Again, the change has
20		only minimal impact on power costs.
21		The third change generally improves the functionality of the model by
22		enhancing security for projects with "locked" scenarios, providing an MMBtu

report and providing financial reports with finer granularity in LTC cost

23

1 reporting. These model changes have no impact on net power costs.

2 GRID Model Inputs

3 Q. What inputs were updated for this filing?

A. The net system load, wholesale sales and purchase power expenses, wheeling
expenses, market prices for natural gas and electricity, fuel expenses, hydro
generation, thermal heat rates, thermal planned maintenance and outages inputs
were updated for this filing.

8 GRID Model Outputs

14

9 Q. What reports does the GRID model produce?

- 10 A. The major output from the GRID model is the Net Power Cost report. This is
 11 attached to my testimony as Exhibit PPL/201. Additional data with more detailed
 12 analyses are also available in hourly, daily, monthly and annual formats by heavy
 13 load hours and light load hours.
 - Q. Please describe Exhibit PPL/202.
- 15 This Exhibit is a schedule of the Company's major sources of energy supply by A. 16 major source of supply, expressed in average megawatts owned and contracted for 17 by the Company to meet system load requirements, for the test period. The total shown on line 11 represents the total future usage of resources during the forecast 18 19 period to serve system load. Line 12 consists of wholesale sales made to 20 neighboring utilities within the Pacific Northwest, the Pacific Southwest, and the 21 Desert Southwest as calculated from the production cost model study. Line 13 22 represents the Company's total system load net of special sales.

1 Please describe Exhibit PPL/203. Q. 2 This Exhibit lists the major sources of future peak generation capability for the A. Company's winter and summer peak loads and the Company's energy load for the 3 4 test period. 5 Do you believe that the GRID model appropriately reflects the Company's Q. 6 forecasted net power costs over the test period? Yes. The GRID model appropriately simulates the operation of the Company's 7 A. system over a variety of stream flow and market conditions consistent with the 8 9 Company's operation of its system including operating constraints and 10 requirements. 11 Does this conclude your direct testimony? Q.

12

A.

Yes.

Case UE-Exhibit PPL/201 Witness: Mark T. Widmer

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

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Exhibit Accompanying Direct Testimony of Mark T. Widmer

NET POWER COST ANALYSIS

PacifiCorp					Oregon	Oregon TAM 2007Mar20	lar20						
Generic Study Period Ending Dec 2008	01/08-12/08	Jan-08	Feb-08	Mar-08	Net Pov Apr-08	Net Power Cost Analysis 18 May-08 .	sis Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
						•							
Special Sales For Resale Long Term Firm Sales Black Hills BPA Wind LADWP (IPP Layoff) PSCO Salt River Project Slerra Pac 2 SMUD UMPA II	10,108,841 1,551,918 26,154,379 62,650,632 13,621,434 33,881,068 13,001,007	852,956 195,753 2,051,058 5,411,748 1,215,000 3,083,126 1,850,000 603,875	825,480 142,002 1,980,567 5,163,498 1,106,400 2,980,481 1,613,200 582,275	850,177 167,537 2,051,058 5,272,939 1,098,602 2,951,047 529,100	837,080 111,620 2,095,484 5,000,661 967,044 2,589,401	842,389 110,231 2,298,400 5,118,113 1,005,936 2,513,927 603,875	828,085 83,386 2,261,666 5,000,660 1,023,165 2,429,018	853,119 61,011 2,216,509 5,411,748 1,284,912 2,730,914 1,420,800 1,811,625	849,740 71,919 2,244,177 5,411,748 1,349,676 2,872,428 1,628,000 1,425,145	836,872 94,591 2,182,342 5,286,288 1,228,623 2,847,270 1,565,100 806,582	846,784 123,665 2,215,460 5,160,823 1,061,315 2,903,876 913,900 603,875	832,648 187,057 2,452,748 5,000,660 1,079,468 2,916,455 1,454,100 583,075	853,512 203,145 2,124,910 5,411,748 1,201,294 3,083,126 2,027,600 603,875
Total Long Term Firm Sales	170,750,143	15,263,516	14,353,903	13,524,335	12,194,364	12,492,871	12,574,900	15,790,637	15,852,833	14,847,668	13,829,697	14,516,209	15,509,210
Short Term Firm Sales Four Corners Mid Columbia Pato Verde SP15 STF Index Trades	243.791,300 500,910,348 8,746,100	38,772,250 59,559,922 1,593,800	36,617,450 55,920,854 1,532,500	39,463,850 59,559,922 1,593,800	16,268,700	16,526,550 31,001,630	15,940,500 30,017,200	16,745,700 33,518,420 1,353,000	16,745,700 33,518,420 1,353,000	16,179,000 42,834,800 1,320,000	10,568,700 42,683,130	9,660,600	10,302,300
Total Short Term Firm Sales	753,447,748	99,925,972	94,070,804	100,617,572	46,189,040	47,528,180	45,957,700	51,617,120	51,617,120	60,333,800	53,251,830	50,346,540	51,992,070
System Balancing Sales COB Four Corners Mid Columbia Palo Verde SP15 Trapped Energy	138,165,648 279,107,729 25,144,711 1,192,203	15,271,060 38,370,996 255,454	14,403,121 22,886,212 231,460	13,947,390 21,195,018 143,808 - - 211,009	11,469,076 14,776,890 3,075,598	11,376,729 16,094,430 2,489,750	8,308,026 15,584,205 2,256,273	5,272,052 17,771,938 3,353,744 754,602	5,309,819 26,438,310 2,348,699 437,601	10,184,466 24,590,654 8,073,572	12,376,830 23,640,802 559,475	12,816,882 25,841,444 1,063,620	17,430,198 31,916,830 1,293,258
Total System Balancing Sales	443,826,183	53,897,510	37,520,793	35,497,225	29,321,564	29,960,909	26,148,991	27,156,154	34,535,005	42,848,692	36,577,107	39,721,946	50,640,286
Total Special Sales For Resale	1,368,024,075 169,086,999	169,086,999	145,945,500	149,639,132	87,704,968	89,981,959	84,681,592	94,563,912	102,004,958	118,030,160	103,658,635	104,584,695	118,141,566

Dec-08	1,651,745 745,200 486,482 -2,610,410 104,184 222,200 706,833 592,734 592,734 526,510	146,280 904,800 1,030,320 10,000 670,913 848,160 382,099 48,735	895,938 - 24,163,509	227,005 281,025 21,228,427 81,336 13,195 2,242,223 2,242,223 1,127,244,380 1,127,544 1,452,746 1,622,746 1	326,758 194,708 1,134,428 (643,044) 40,884 907,870 3,449,194
Nov-08	1,545,990 1 521,038 431,860 2,572,043 2 101,365 265,000 684,031 201,607 2,452,748 2	146,280 835,200 1,030,320 10,000 617,778 820,800 319,318 38,667	795,503 - 23,658,970 24		14,856,389 326,758 194,708 1,049,145 (643,044) 1,487,591 40,884 907,870
Oct-08 N	1,514,101 1 561,310 446,255 110,001 110,001 110,001 265,600 706,833 477,815 199,435 19	146,280 939,600 1,030,220 1,030,220 1,030,320 1,030 333,880 36,438 939,255	822,021 - 23,978,013 2		12,506,759 326,758 194,708 1,001,007 (643,044) 1,487,591 907,870 3,315,773
80-des	343,430 343,430 309,833 1,929,400 22,572,043 90,547 215,100 684,031 606,454 22,149 22,149 22,149 22,149	146,280 870,000 870,000 384,200 1,030,320 10,000 312,400 31,044 31,944 973,252	570,672 54,241 26,759,491	77,397 278,672 800,205 78,347 217,733 99,276 2,178,404 292,590 2,210,580 894,117 319,600 317,709 319,600 317,709	13,432,390 326,788 194,708 960,286 (643,044) 40,894 907,870 3,275,052
Aug-08	1,405,636 748,270 320,160 1,990,352 1,1860,240 2,610,410 151,465 151,500 706,833 763,363 298,332 298,177	146,280 904,800 2,641,080 872,040 1,030,220 10,000 237,522 848,160 332,099 30,395 975,850	589,694 258,061 35,751,872	94,370 289,732 767,703 76,617 233,951 110,125 2,242,223 308,389 2,971,164 3,390 1,107,004 1,316,872 2,880,398 328,607 528,343 1,107,004	15,484,682 326,758 190,839 969,208 (643,044) 1,487,591 907,870 3,280,105
90-InC	1,333,138 520,540 320,160 1,975,376 234,000 2,076,600 2,010,410 194,213 194,213 194,213 726,384 327,008 32,008 32,108 32,108 32,108 32,108	146.280 904,800 2,641,080 872,040 1,030,320 10,000 201,495 39,099 29,348 980,680	589,694 283,658 33,771,231	209,157 374,703 852,147 79,649 246,949 110,442 2,242,223 301,622 1,925,221 610,285 790,166 201,285 790,166 405,10 288,61 492,192 492,192	13,738,145 326,738 190,839 1,178,745 (643,044) 1,487,591 40,884 907,870
ar20 is Jun-08	1,206,903 559,890 309,833 1,600,304 225,000 2,572,043 245,569 245,569 215,100 684,031 160,868 2,261,666 900,925	146,280 870,000 870,000 384,200 10,000,320 10,000 275,394 280,800 321,099 28,062 28,062 365,103	246,707 246,707 25,598,290	583,950 466,545 1,142,239 79,934 21,18,494 104,229 2,178,494 1635,993 34,285 822,588 282,583 319,600 12,379 1,379 2,587,887	11,986,963 326,758 190,839 994,796 (643,044) 1,487,591 40,884 907,870
Oregon TAM 2007Mar20 Net Power Cost Analysis pr-08 May-08 Jun-0	2,610,410 2,610,410 2,816,100 706,833 572,630 5,239 2,238,405 964,345	146,280 904,800 904,800 1,030,320 1,030,320 1,000 384,054 848,160 332,099 31,564	822,021 - 22,876,451	722,484 452,241 1,463,415 83,619 202,737 102,736 2,242,223 83,169 2,36,319 1,531,152 395,972 641,319 376,672 326,677 2,644,807 785,244	12,292,715 326,758 190,839 1,213,686 (643,044) 1,487,591 407,870 3,524,583
Oregon 1 Net Pow Apr-08	549,300 431,860 152,944 215,100 684,031 521,814 61,196 62,085,484 660,087	146,280 904,800 1,030,320 10,000 388,540 30,862 833,683 833,683	795,503	725,534 343,845 1,560,068 85,080 157,634 36,355 2178,494 80,372 283,677 1840,860 452,015 850,143 347,135 300,016	12,593,955 326,78 190,839 1,150,074 (643,044) 1,487,591 40,844 907,870
Mar-08	769,290 486,482 2,610,410 109,776 224,300 706,833 500,460 237,267 2,051,056	146,280 904,800 	895,938 - 22,005,976	606,594 314,565 1,406,859 87,393 147,022 11,980 2,242,223 38,169 306,389 3,396,220 1,847,924 857,576	12,849,040 326,758 190,839 849,414 (643,044) 1,487,591 40,787 3,160,312
Feb-08	990, 450 455,096 2,533,676 83,999 219,500 661,230 452,823 252,060	146,280 870,000 870,000 2,550,525 384,200 1,0300 488,379 793,440 311,880 40,729 976,545	838,135 23,693,927	506,706 260,653 1,343,802 84,379 147,080 13,022 2,114,765 75,788 284,645 4,419,909 656,515 299,724 291,662 2,530,967 863,602	13,802,617 326,758 190,839 847,234 (643,044) 1,487,591 907,870 3,158,131
Jan-08	564,460 486,482 2,610,410 84,333 22,200 706,833 559,361 257,539 257,539	146,280 904,800 2,826,927 384,200 1,000 646,498 848,160 332,099 49,651 1,020,206	895,938 - 24,390,536	422,591 279,491 1,374,972 84,111 153,782 13,390 2,242,223 301,622 5,161,385 266,297 308,369 2,644,807 2,644,807	15,409,105 326,758 190,839 882,053 (643,044) 1,487,591 40,847 907,870 3,192,951
01/08-12/08	10,126,256 8,121,018 8,121,018 7,489,759 7,485,420 2,544,240 4,555,400 31,084,720 1,683,330 2,716,400 8,245,184 6,800,378 6,800,378 6,800,378 6,259,402 2,519,402 2,519,402	1,755,360 10,718,400 5,282,160 1,744,080 7,722,805 4,610,400 12,363,840 120,000 5,125,402 10,013,760 3,922,749 438,414 11,390,371	2,195,550 9,081,726 842,667 307,759,851	4,352,670 3,952,954 13,635,431 992,329 2,19,1966 6,72,773 26,524,302 6,035,867 6,035,8	166,586,966 3,921,090 2,305,554 12,230,076 (7,716,523) 17,851,093 490,606 10,894,424 39,976,320
PacifiCorp Generic Study Period Ending Dec 2008 01	Purchased Power & Net Interchange Long Term Firm Purchases AMP Resources (Cove Fort) 10,126,3 APS Supplemental 6,121,4 Constellation p257677 7,485,5 Constellation p257678 2,544,505,5 Constellation p257678 2,544,505,5 Constellation p257678 2,544,505,5 Constellation p267678 2,544,505,5 Constellation p267678 2,544,505,509,909,909,909,909,909,909,909,909	MagCorp MagCorp MagCorp Reserves Morgan Stanley p189046 Morgan Stanley p244840 Morgan Stanley p244841 Nebo Heat Rate Option NuCor P4 Production PGE Cove Rock River Roseburg Forest Products Roseburg Forest Products Corp	UBS pt88848 Wolverine Creek DSM (Load Curtailment) Sub Total Long Term Firm Purchas	Cualifying Facilities OF California OF Idaho OF Oregon OF Utah OF Washington OF Wyoning Blomass Douglas County Forest Products ExconMobil OF Mountain Wind 2 OF Ploneer Ridge OF Schwendinan OF Sumnyside US Magnesium OF	Total Qualifying Facilities Mid-Columbia Contracts Canadian Entitlement Chelan - Rocky Reach Douglas - Wells Grant Displacement Grant Displacement Grant Reasonable Grant Meaningful Priority Grant Surplus Grant - Wanapum Total Mid-Columbia Contracts

PacifiCorp					Oregon	Oregon TAM 2007Mar20	tar20						
Generic Study Period Ending Dec 2008	01/08-12/08	Jan-08	Feb-08	Mar-08	Net Por Apr-08	Net Power Cost Analysis 8 May-08 J	sis Jun-08	90-Inf	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Storage & Exchange													
APGI/Colockum Capacity Exchai	•				•			•					•
APS Exchange	1 903 938	. 05.478	83 823	- 266 511	408 454	301 205	- 609	94.115	94.193	106.507	76.508	77,669	99,154
BPA Exchange	033,000,	90,10	20,00	1000	- 1		-	'				. '	•
BPA FC II Storage Agreement	•						•	•				•	
BPA FC IV Storage Agreement	•										1 201	4 505 050	4 505 050
BPA Peaking	54,303,000	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,525,250	4,363,630
BPA So. Idaho Exchange		•			•	i		• 1					
Cowitz Swift			•						•	,		,	•
EWEB FOI Storage Agreement	000.006	75.000	75.000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
PSCO FC III Storage Agreement								•			•	•	
Redding Exchange	,			٠	•	•					į		
SCL State Line Storage Agreem	•				•		•	•		1		•	
Total Storage & Exchange	57,006,226	4,695,728	4,684,073	4,866,761	5,008,704	4,901,455	4,699,859	4,694,365	4,694,443	4,706,757	4,676,758	4,677,919	4,699,404
Short Term Firm Purchases								000	9			,	
Four Corners Mid Columbia	4,243,200	6.829.550	6.448.750	8.202.350	10,971,700	11,208,550	10,823,000	21,394,400	21,394,400	20,674,000	1,972,200	1,839,600	1,939,800
Palo Verde	210,974,868	28,355,852	26,743,864	28,355,852	10,660,800	8,504,300	8,258,500	13,667,000	13,667,000	13,283,500	19,930,650	19,511,700	20,035,850
SP15 STF Index Trades		1	l	l	اا	1		.1	.1	ا.	.1	.1	.1
Total Short Term Firm Purchases	338,916,368	35,185,402	33,192,614	36,558,202	21,632,500	19,712,850	19,081,500	37,183,000	37,183,000	33,957,500	21,902,850	21,351,300	21,975,650
System Balancing Purchases COB	9,525,425	115,891	313,980	499,473	50,514	36,896	781,361	2,777,345	2,897,165	868,276	200,729	571,984	411,811
Four Corners Mid Columbia	2,665,265	22,395,248	762,360 18,351,128	337,464 20,198,158	68,137 3,172,355	3,019,497	13,494 5,295,775	424,766 9,991,946 45,407,734	38,419 14,191,360 16,085,204	3,575,834	363,174 15,667,183 18,237,560	12,024,224	14,213,753
Palo Verde SP15	8,668,915	1,627,067	1,519,807	1,441,111	100000		0/0'+0/01	1,289,170	1,453,755	1,338,005			
Emergency Purchases	447.752	.l	12,158	365,074	.	.l	.	284,80	.l	.	23/1-1		
Total System Balancing Purchases	382,678,817	48,879,950	44,337,529	45,182,900	12,884,317	18,710,056	22,845,508	29,750,450	34,665,993	31,184,200	34,489,675	27,891,055	31,857,184
Total Purchased Power & Net I	1.292.924.547 131.753.672	131,753,672	122,868,891	124,623,190	76,692,030	82,018,111	87,517,813	122,626,834	131,070,105	113,315,350	100,869,827	95,799,544	103,769,179

PacifiCorp					Oregon	Oregon TAM 2007Mar20	Mar20						
Generic Study Period Ending Dec 2008	01/08-12/08	Jan-08	Feb-08	Mar-08	Net Per Apr-08	Net Pewer Cost Analysis IS May-08 J	Jun-08	30-Inc	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Wheeling & U. of F. Expense Firm Wheeling ST Firm & Non-Firm	107,412,609 307,719	9,311,540 <u>9,321</u>	8,947,771 <u>3,702</u>	9,159,852 <u>5,107</u>	9,459,107 <u>25,083</u>	9,010,901 <u>28,131</u>	8,571,118 <u>31,451</u>	9,057,666 <u>42,419</u>	8,821,273 <u>29,686</u>	8,427,965 <u>32,632</u>	8,621,359 44,765	8,994,500 31,237	9,029,557 <u>24,185</u>
Total Wheeling & U. of F. Expe	107,720,328	9,320,860	8,951,473	9,164,959	9,484,191	9,039,032	8,602,569	9,100,085	8,850,959	8,460,597	8,666,123	9,025,738	9,053,742
Coal Fuel Burn Expense	13,403,317	959,088	1,176,605	1,282,843	1,032,243	1,098,980	1,127,758	1,268,103	1,185,270	1,188,298	827,113 4,780,873	1,202,947	1,054,071
Craig	10,335,718	927,850	873,384 1,332,743	936,820	890,886 1,522,771	978,144 1,583,084 3 906 785	855,198 1,428,741 3 911 893	890,080 1,607,776 3,999,698	927,388 1,529,883 4,137,956	693,862 1,551,281 3,446,707	741,839 1,599,269 3,154,909	667,200 1,538,337 4,191,879	953,067 1,586,613 4,285,402
Dave Johnston Hayden Hunter	47,312,051 8,542,296 103,133,875	4,187,598 731,293 8.963,390	4,027,639 409,206 6.867,461	3,960,095 845,331 9,047,214	689,686 7,940,031	698,653 9,084,943	694,822 8,261,917	771,849 9,142,576	734,543 8,509,537	746,877 8,611,971	758,553 8,709,233	710,311 8,809,328	751,171 9,186,273
Huntington Jim Bridger Naughton	79,755,197 121,337,254 70,069,220	7,100,535 10,702,212 5,836,617	6,143,557 9,627,468 6,216,162 1,520,467	7,195,383 9,152,966 4,132,140 1,556,677	6,796,560 7,788,062 5,238,254 1,546,936	7,067,802 9,160,789 5,789,557 1,585,089	7,017,895 10,571,061 5,915,795 1,520,919	7,171,483 10,538,618 6,236,203 1,587,268	6,752,482 10,787,848 6,303,056 1,545,897	5,313,475 10,756,208 6,039,873 1,605,782	5,943,535 10,759,093 6,396,010 1,292,521	6,130,472 10,809,055 5,841,949 1,241,119	7,122,018 10,683,875 6,123,604 1,708,484
Total Coal Fuel Burn Expense	542,780,339	47,243,106	41,181,285	44,035,414	41,765,580	44,906,909	45,385,868	47,824,158	47,136,190	44,557,910	44,962,947	45,785,008	47,995,964
Gas Fuel Burn Expense Currant Creek	127,792,096	11,808,077	12,241,391	11,524,617	9,105,270	7,719,287	7,703,051	10,557,432	13,005,945	11,153,998	8,843,770	11,423,409	12,705,849 804,408
Gadsby Gadsby CT Hermiston	20,577,489 15,766,422 57,172,934	206,239 882,304 4,754,561	138,040 572,041 4,666,589	40,828 321,997 2,938,513	505,013 4,525,789	1,239,037 4,790,521	2,012,969 1,475,073 4,760,798	4,330,901 1,914,281 4,985,537	4,307,304 2,042,417 4,809,320	1,832,448 4,971,783	1,830,160	1,410,921	1,740,730 5,360,065
Lake side Little Mountain West Valley	136,080,810 9,830,063 8,975,023	14,737,218 1,350,554 2,084,259	11,833,078 1,257,097 1,613,806	11,790,801 1,200,441 1,041,446	9,173,800 1,053,052 1,781,225	8,676,150 971,871 2,454,286	8,221,327	10,560,633 137,200	13,074,175 151,454	12,002,696	8,314,684 1,152,811	12,725,971 1,180,108	14,9/0,2/6 1,375,476 -
Total Gas Fuel Burn	376,194,836	35,823,211	32,322,043	28,858,643	26,144,149	27,402,199	24,173,237	32,691,983	37,620,616	34,261,025	27,186,331	32,754,595	36,956,804
Mark to Market Gas Swaps Pipeline Reservation Fees	33,758,417 13,214,212	3,229,146 1,105,279	1,700,908	2,418,310 1,105,279	3,366,210 1,097,089	4,690,393 1,105,279	4,475,280 1,097,089	3,653,505 1,105,279	3,374,505 1,105,279	2,444,130 1,097,089	2,886,100 1,105,279	1,432,200	87,730 1,105,279
Total Gas Fuel Burn Expense	423,167,465	40,157,636	35,111,850	32,382,232	30,607,448	33,197,871	29,745,607	37,450,767	42,100,400	37,802,244	31,177,711	35,283,885	38,149,813
Other Generation Blundell	4,429,953	361,517	347,532	382,471	374,972	386,948	368,629	388,323	389,081	319,935	360,925	374,366	375,255
Goodnoe													
Marengo				.1	.1	.1	.	.1		.1	J	.1	J
Total Other Generation	4,429,953	361,517	347,532	382,471	374,972	386,948	368,629	388,323	389,081	319,935	360,925	374,366	375,255
Net Power Cost	1,002,998,558	59,749,793	62,515,532	60,949,135	71,219,254	79,566,912	86,938,894	122,826,255	127,541,778	86,425,875	82,378,898	81,683,845	81,202,387
Net Power Coathlet System Load	17.29	11,83	13.70	13.17	16.41	17.35	18.12	22.60	24.35	18.71	1.E	16.79	15.34

					MWh							
	۰,	0)	©	© _,	0)	00	(C)	0	(0)	(O) ,	0	. 7 480
29,580 53,600 (73,653)	7,480	. (5.594)	(5.753)	(977,7)	335 (6.834)	3,740 8,442 (6,341)	3,400 14,271 (6,309)	3,740 18,425 (7,097)	3,740 12,127 (5,947)	(6.631)	(6.067)	(4.614)
9,527	2,790	(5,594)	(5,753)	(7,776)	(6,499)	5,841	11,362	15,068	9,920	(6,631)	(6,067)	2,866
58,016,416 5,05 58,006,889 5,04	5,052,123	4,558,850 4,564,444	4,620,825 4,626,578	4,333,306 4,341,082	4,578,369 4,584,868	4,802,885	5,446,661 5,435,299	5,251,877 5,236,809	4,630,195 4,620,275	4,585,683 4,592,314	4,860,073 4,866,140	5,295,569 5,292,703
383,989 39,946 39,946 559,064 692,969 87,19,600 4461,175 351,400 822,328	31,294 5,039 42,855 81,780 18,600 44,625 50,000	28,791 3,655 38,707 76,535 17,400 41,700 43,600	31,040 4,312 42,855 78,847 18,600 41,475 14,300 13,938	29,848 2,873 42,583 73,094 18,000 32,850 13,488	30,331 2,837 48,023 75,76 18,600 31,050	29,028 2,146 45,960 73,094 18,000 29,025 - 21,580	31,308 1,570 46,312 81,780 18,600 36,225 38,400 41,813	31,001 1,851 46,890 81,780 18,600 39,600 44,000 32,893	29,829 2,435 44,348 79,129 18,000 39,000 42,300	30,731 3,183 46,290 76,478 18,600 40,350 24,700	29,444 4,815 49,843 73,094 18,000 40,650 39,300	31,344 5,229 44,398 81,780 18,600 14,625 54,800 13,938
3,132,472	88,130	263,426	245,368	212,736	220,355	218,834	296,008	296,614	273,384	254,270	268,634	294,714
3,810,600 5, 8,160,200 8 134,800	25,800 82,400 20,800	495,400 825,200 20,000	536,200 882,400 20,800	361,600	368,800 594,000	356,000	244,000 543,000 24,600	244,000 543,000 24,600	236,000 664,000 24,000	153,000	140,400	149,400 693,000 -
12,105,600 1,4	29,000	1,340,600	1,439,400	930,400	962,800	932,000	811,600	811,600	924,000	861,000	820,800	842,400
2,085,843 2 3,983,537 5 459,656 12,450 5,422	30,742 30,108 3,280	199,540 327,551 3,432	210,535 330,662 2,188 - 5,277	195,356 250,112 65,039	227,815 261,566 56,903	173,527 249,908 62,822	78,312 214,814 70,519 7,800	71,126 315,291 40,202 4,650	136,508 307,715 111,475	185,019 357,255 9,743	181,946 395,043 15,593	223,417 443,512 18,459
6,546,908 7	736,131	530,523	548,663	510,507	546,284	486,279	371,553	431,285	555,698	552,017	592,582	685,387
21,784,980 2,4	153,261	2,134,549	2,233,430	1,653,642	1,729,439	1,637,113	1,479,161	1,539,489	1,753,082	1,667,288	1,682,016	1,822,501
79,791,869 7,5	502,594	6,698,993	6,860,008	5,994,724	6,314,307	6,434,157	6,914,460	6,776,308	6,373,357	6,259,602	6,548,156	7,115,204
76, 108 228,650 115,366 115,366 116,800 16,800 16,807 131,48 131,	7,350 11,382 68,192 3,490 11,136 6,400 6,400 8,504 42,855 20,800	13,950 10,646 	24.150 11,382 4,586 11,136 11,136 5,824 3,780 42,855 20,800	23.100 10,104 10,104 66,960 6,323 7,410 1,248 42,583	33.450 10,441 10,441 1,687 1,136 9,346 122 48,023 20,800	20,990 23,250 7,249 16,800 66,860 10,256 10,777 10,777 10,777 10,777 2,896 45,890	24,228 21,500 7,481 20,800 17,600 68,182 8,083 11,136 10,280 4,513 46,312 20,800 31,200 10,400	24,446 18,050 7,481 20,800 16,800 16,800 16,800 11,138 9,560 3,948 46,880 20,800 31,200 10,400	24,500 1,250 7,249 20,000 66,960 3,712 7,098 3,809 44,348	26,332 21,050 10,441 10,441 4,546 4,546 3,189 46,290 21,600	26,887 16,600 10,104 66,960 4,166 10,777 4,734 2,990 49,843	28,726 10,350 11,382 1,382 4,276 11,136 6,090 3,448 44,398
- 多多多多,我们就是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	31,294 2 5,039 42,855 81,780 18,600 11,398 13,938 13,938 1288,130 226,742 20,742 11,429,000 1,3,131 5,502,108 3,280 2,453,261 2,11 2,12,202,742 11,382 11,382 11,382 11,382 11,382 11,382 11,382 11,386 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,182 3,490 11,136 69,183	31,294 28,791 3 5,039 3,655 42,855 38,707 44 81,700 44,625 77 18,600 44,625 77 13,938 13,039 1 228,130 263,426 24 50,000 446,500 20 20,800 20,000 2 1,429,000 1,340,600 1,43 202,742 199,540 27 520,108 327,551 33 220,742 199,540 27 520,108 327,551 33 7,502,594 6,686,993 6,88 7,502,594 6,686,993 6,88 11,382 10,418 6,400 4,992 3,490 20,000 20,800 20,000	31,294 28,791 31,040 29 42,655 36,570 42,655 4,312 81,700 74,000 14,475 3,847 18,600 41,700 41,475 3,847 50,000 43,600 13,609 11,399 13,938 13,038 13,038 11,399 11,393 13,038 28,400 58,200 20,800 20,600 20,600 20,800 20,20 20,20 20,20 20,800 20,108 20,108 20,400 882,400 58 520,108 3,432 2,188 6 520,108 3,432 2,188 6 520,108 3,432 2,188 6 530,523 548,663 51 7,502,594 6,866,083 5,824 7,502,594 6,866,083 6,860,008 5,98 11,382 11,382 11,382 11,382 11,486 11,386 11,366 11,382 10,448 11,366 5,924 4,00 4,992 5,824 3,594 3,671 3,890 39,193 34,804 33,890	31,294 28,791 31,040 29,848 3 5,039 3,655 4,312 2,873 2,873 6,2365 39,707 42,855 42,853 42,855 11,7400	31,294 28,791 31,040 29,848 30,331 2,877 4,315 4,312 2,873 4,312 2,873 4,875 4,255 3,077 44,255 4,312 2,873 4,802 4,4625 78,347 73,044 75,576 7 50,000 44,625 14,300 18,600 18,600 18,600 50,000 44,625 245,368 13,488 13,698 13,698 28,130 285,426 245,368 212,736 220,355 22 282,600 495,400 20,000 20,800 368,800 594,000 33 20,27 22,200 24,536 212,736 227,815 14 20,27 20,000 20,000 20,400 594,000 594,000 20,800 22,000 20,400 586,800 594,000 594,000 20,800 22,000 20,400 882,400 586,800 594,000 20,800 23,400 1,438,400 882,	51.294 28,781 31,040 29,846 30,331 29,028 2 42.885 38,777 42,885 28,73 42,873 45,966 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 45,104 46,104	51.284 28,781 31,040 29,848 30,331 29,028 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 31,308 41,570 41,570 41,570 41,570 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570 41,500 41,570<	5,000 28,044 30,331 2,978 13,044 28,048 30,331 2,978 13,001 2 6,0280 8,0280 4,372 2,887 2,878 1,979 1,570 <td< th=""><th>5,028 2,028 2,028 31,204 2,028 31,204 1,100 2,028 31,204 1,100 2,028 31,204 1,100 2,028 31,204 1,100 1,181 2,628 4,131 4,180 1,130</th><th>5.1244 5.1724 1.1571 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.4580 4.4780</th></td<>	5,028 2,028 2,028 31,204 2,028 31,204 1,100 2,028 31,204 1,100 2,028 31,204 1,100 2,028 31,204 1,100 1,181 2,628 4,131 4,180 1,130	5.1244 5.1724 1.1571 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.458 3.1731 2.4580 4.4780

Dec-08	1,014 18,910 14,880 5,521 608	18,669 16,570	452,948	1,916 5,562 13,545 1,708 1,008 156 14,863	4,529 78,120 18,539 23,986 16,979 4,107 6,324	6,061 34,700 14,880 246,983	(5,530) 27,230 20,595 32,586	24,358 3,501 67,571	170,312 870,242	(17,743) 142,590 142,590 	154,747	29,000
Nov-08	990 17,412 14,400 5,342 486	16,373 14,712	453,455	732 5,801 9,858 1,765 1,096 156	5,832 64,800 19,287 24,978 12,518 5,155 6,120	4,823 33,581 14,400 225,285	(5,120) 23,031 17,401 31,535	20,634 2,966 57,044	147,491 826,231	(38,176) 137,940 (66,667) 2,462 (13,915) 3,132 (5,586) 160 4,306 10,902 944	36,000	27,600
Oct-08	1,014 11,511 14,880 5,521 456	16,167	452,811	444 5,874 8,260 1,786 1,679 753 14,863	5,867 52,080 13,680 18,183 10,594 3,546 6,324	4,420 26,865 14,880 190,097	(5,530) 20,647 15,507 31,786	18,629 2,678 50,501	134,219	(36,877) 77,910 (66,667) 112 1,020 5,520 2,375 (971) 106 2,412 (10,679) (1,1611)	(27,339)	29,400
Sep-08	990 8,805 14,400 5,342 402	17,829	442,921	477 5,531 8,422 1,669 2,433 1,749	5,695 50,400 13,628 17,682 15,238 4,550 6,120	5,508 33,581 14,400 201,468	(5,325) 17,298 13,036 31,148	15,737 2,262 42,366	116,522	(37.310) (68,710) (66,667) 104 954 2,760 1,449 3,977 1,659 (15,444) (15,444) (53)	(177,200)	318,000
Aug-08	1,014 6,695 14,880 5,521	18,897 8,400 10,906	545,320	635 5,725 8,233 1,623 2,725 1,964	6,004 52,080 14,366 19,028 18,137 4,896 6,324	7,578 34,700 14,880 213,759	(5,325) 25,505 19,903 33,385	19,382 2,786 52,932	148,569	(17.743) (142,580) 	(187,799)	20,800 328,800 230,200
90-Jul-08	1,014 5,679 14,880 5,521	18,191 8,800 10,906	542,937	1,714 7,380 9,161 1,678 2,825 1,974	1,796 1,796 35,280 10,595 13,833 11,427 5,223 6,324	7,189 34,700 14,880 186,708	(5,530) 33,625 27,350 46,780	21,802 3,134 60,055	187,216	(147,43) (142,560) (16,102 (79) (70) (1,506) (1,526) 52 (2,270) (1,084) (1,084)	(49,608)	20,800 328,800 230,200
lar20 iis Jun-08	990 7,762 14,400 5,342 349	15,964 10,554	451,806	5,232 9,589 12,640 1,714 2,333 1,850	1,738 5,764 50,400 10,177 13,677 5,342 6,120	204 33,581 14,400 189,144	(5,120) 33,798 27,266 51,848	18,445 2,652 61,692	190,581	(17,203) (137,880) 133,898 (63) (11,980) 1,241 (1,285) (5,908) 7,050	(36,014)	248,000
TAM 2007Mar20 wer Cost Analysis May-08 Jun-C	1,014 10,261 14,880 5,521 394	14,802	427,827	6,656 8,920 16,215 1,793 1,850 1,863	1,796 4,597 52,080 12,414 11,871 6,845 6,324	34,700 14,880 197,647	(5,530) 33,272 27,655 53,976	14,734 2,117 60,249	186,474	(17,633) (78,060) 0 14 (230) 1,208 (2,736) (6,083) (13,922)	(119,990)	256,600
Oregon Net Pov	990 10,390 14,400 5,342 384	11,004	389,448	6,642 6,805 17,187 1,759 1,197 591	14,384 1,736 5,695 54,000 12,312 16,141 6,308 6,120	33,581 14,400 198,859	(5,325) 29,011 23,078 42,949	17,483 2,513 58,903	168,612	(16,343) (1,440) (1,440) 4,830 2,187 (4,672) 95 (1,617) 8,911	8,201	250,000
Mar-08	1,014 15,595 14,880 5,521 520	13,823	376,627	4,697 6,233 15,281 1,767 1,064	14,883 1,796 6,004 66,960 14,459 7,321 6,324	19,029	(5,325) 23,463 17,933 29,987	21,478 3,086 58,928	149,551	(17,633) (50,000) (5,520) (5,520) 3,289 2,026 1,43 (1,283) 11,536 25,151	(31,432)	116,000
Feb-08	966 13,218 13,920 5,164 510	17,990	420,706	4,465 5,180 14,831 1,67 1,067	13,904 1,637 5,524 73,080 - 10,876 3,800 5,916	32,461 13,920	(5,120) 25,903 19,844 27,865	23,478 3,375 65,082	160,428	(15,913) (9,030 (1,22) (1,090) (2,004) 2,373 121 (2,204) (1,580) (3,611)	63,683	98,000 98,000 98,000
60-nel.	1,014 18,222 14,880 5,521 622	20,125	443,272	3,723 5,549 15,173 1,745 1,119	14,863 2,864 5,867 78,120 17,305 4,657 6,324	34,700	(5,530) 32,980 25,735	28,603 4,111 83,636	199,123	(17,633) 142,395 6 78 7,800 3,825 4,389 167 11,998 11,998	150,043	95,200
01/M8-12/M8	12,024 144,459 175,680 65,178 5,481	199,833 17,200 167,962	5,400,078	37,334 78,149 148,805 20,685 20,395 11,490	175,479 13,364 67,243 707,400 124,999 117,691 169,221 61,750	35,782 386,179 175,680	(64,307) 325,764 255,303 443,432	244,765 35,180 718,960	1,959,097 9,785,486	(267,947) 65 0 2,570 4,025 28,906 (7,975) 1,324 1,334	(216,708)	41,600 2,117,000 3,468,400
PacifiCorp Generic Study Basical Ending Data 2008	oducts oducts CA	Small Purchases west Tri-State Purchase UBS p268848 Wolverine Creek	Sub Total Long Term Firm Purchas	Qualifying Facilities OF California OF Idaho OF Oregon OF Utah OF Washington OF Wyoming	Blomass County Forest Products Douglas County Forest Products Evaruation BloPower QF ExconMobil QF Mountain Wind 1 QF Mountain Wind 2 QF Ploneer Ridge QF Schwendinan QF County C	Simplor Prosphates Spanish Fork Wind 2 QF Surmyside US Magnesium QF	Mid-Columbia Contracts Canadian Entitlement Chelan - Rocky Reach Douglas - Wells	Grant Reasonable Grant Meaningtul Priority Grant Surplus Grant - Wanapum	Total Mid-Columbia Contracts Total Long Term Firm Purchases	Storage & Exchange APGI/Colockum Capacity Exchan APS Exchange Black Hills CTs BPA Exchange BPA Exchange BPA FC IV Storage Agreement BPA P Peaking BPA Peaking BPA So. Idaho Exchange Cowlitz Swift EWEB FC I Storage Agreement PSCO Exchange	Total Storage & Exchange	Short Term Firm Purchases Four Corners Mid Columbia Palo Verde SP15 STF Index Trades

PacifiCorp					Oregon	Oregon TAM 2007Mar20	Aar20						
Generic Study Period Ending Dec 2008	01/08-12/08	Jan-08	Feb-08	Mar-08	Net Por Apr-08	Net Power Cost Analysis Apr-08 May-08 Ju	sis Jun-08	3ul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Total Short Term Firm Purchases	5,627,000	519,200	487,600	540,000	454,800	429,400	416,000	579,800	579,800	542,000	360,000	355,200	363,200
System Balancing Purchases COB	147,111	1,685	5,191	8,549	866	1,107	22,825	39,924	36,784	11,743	3,258	9,021	6,026
Four Corners	51,042	•	15,000	7,317	1,581	2,827	<u>8</u>	6,206	418	4,262	/32/	3,159	2,731
Mid Columbia	2,222,667	322.942	276.644	331,611	69,621	81,514	127,127	145,550	181,968	54,826	251,132	185,210	194,520
Dalo Vorde	3 590 053	372.134	367.369	379,373	186,632	278,647	301,809	242,619	238,250	370,032	326,420	258,825	267,945
CD15	134 800	20,800	20,000	20.800			•	24,600	24,600	24,000	•		
Emergency Purchases	5.794] .	138	4.398	.1	.1	.l	1.240	.1	.1	띄	.1	.1
Total System Balancing Purchases	6,151,467	717,561	684,343	752,048	258,832	364,095	451,923	460,140	482,020	464,863	588,185	456,216	471,242
Total Purchased Power & Net I	21,347,245	2,236,248	2,005,250	1,967,615	1,478,752	1,485,453	1,663,440	1,907,193	1,781,669	1,590,574	1,697,973	1,673,647	1,859,431

PacifiCorp					Oregon '	Oregon TAM 2007Mar20	lar20						
Generic Study Period Ending Dec 2008	01/08-12/08	Jan-08	Feb-08	Mar-08	Net Pov Apr-08	Net Power Cost Analysis 3 May-08 J	Jun-08	30-Inc	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08
Coal Generation	1.059.721	74.092	93.628	102.339	80.582	86.176	88,965	100,895	93,596	95,065	65,872	95,770	82,740
Cholla	2,722,761	243,071	154,312	258,264	216,882	201,778	209,285	237,626	243,487	237,608	246,820	239,665	233,964
Colstrip	1,152,656	103,629	97,477	104,710	99,368	109,547	94,809	98,822	103,556	77,721	82,340	74,140	106,536
Craig Dave Johnston	1,258,689	107,277	94,3/3	487.396	506.437	480.415	481.858	492 560	510.254	425.114	389.492	517.204	528,921
Havden	525.205	44.711	25,757	52,734	42,068	42,482	42,432	47,523	45,010	46,043	46,690	43,622	46,132
Hunter	8,392,075	729,957	559,471	737,342	643,060	740,121	670,297	745,440	690,351	700,933	707,755	717,801	749,549
Huntington	6,684,658	595,262	514,147	603,252	569,598	592,471	588,336	601,323	565,643	446,466	497,688	513,476	596,996
Jim Bridger	10,194,083	899,110	806,225	767,609	654,061	767,930	889,357	884,385	906,831	905,984	903,990	305 331	897,702
Naugnton Wyodak	4,753,027 2,179,201	191,568	180,954	279,832 184,577	355,479 183,845	188,244	180,489	188,525	183,186	191,435	154,165	148,058	204,154
Total Coal Generation	44,755,086	3,899,590	3,446,501	3,644,207	3,459,604	3,713,023	3,748,008	3,935,065	3,878,334	3,646,886	3,643,594	3,765,348	3,974,924
Geo Generation													
Currant Creek	2,534,233	220,242	223,925	224,437	197,500	167,073	168,079	217,636	266,936	225,674	178,280	217,755	226,698
Gadsby	257,293	2,293	1,554	480		19,867	24,302	58,349	57,677	54,053	22,965	6,793	8,960 17,045
Gadsby CT	177,893	8,689	6,091	3,547	5,720	14,329	17,343	21,909	23,5/8	160,896	168.381	171.477	166.979
Hermiston I ake eide	9 742 952	979.606	223.394	235.472	200.885	192,435	179,487	218,716	269,594	248,895	171,377	249,211	273,880
Little Mountain	85,380	11,158	10,358	10,416	10,018	9,348	. • •	1,233	1,333		10,415	10,078	11,023
West valley	1001101	20.34.35	2000	7	7								
Total Gas Generation	7,711,249	694,577	632,239	568,152	579,357	585,978	540,433	678,508	771,529	711,209	572,725	671,057	705,485
Hydro Generation		!	:				000	000	700	037 450	000	900	420 633
West Hydro East Hydro	4,038,325 490,845	37,430 37,430	33.876	44,133	49,324	54,555	47,047	47,870	44,503	34,960	29,898	31,262	35,986
Total Hydro Generation	4,529,170	568,832	515,542	531,129	361,947	396,379	350,977	259,530	225,397	312,412	222,458	317,750	466,818
Other Generation						!	;			9	9	94	94 40
Blundell Foote Creek I	285,285	23,281	22,381 9.572	24,631	24,148 7.524	24,919 7,430	23,739 5,621	25,008 4,112	25,056 4,848	20,604 6,376	8,336 8,336	12,609	13,693
Goodnoe	342,919	19,886	21,984	31,834	31,865	33,015	36,608	38,061	31,996	24,718	27,867	25,395	19,689
Leaning Juniper 1 Marengo	296,590 419,713	16,082 30,901	32,548	24,115 57,033	20,561 30,965	33,071 33,037	33,722	31,295	26.051	32,418	37.036	41,644	33,176
Total Other Generation	1,449,114	103,346	99,460	148,905	115,063	133,472	131,298	134,164	119,378	112,276	122,852	120,353	108,546
Total Resources		7,502,593	6,698,992	6,860,008	5,994,723	6,314,305	6,434,156	6,914,460	6,776,308	6,373,357	6,259,602	6,548,155	7,115,204

Case UE-Exhibit PPL/202 Witness: Mark T. Widmer

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Exhibit Accompanying Direct Testimony of Mark T. Widmer NORMALIZED SOURCES OF ENERGY

April 2007

PacifiCorp
Normalized Sources of Energy
12 Months Ending December 2008

Unit - Average Megawatts

Description	Jan-08	Feb-08	Mar-08	Apr-08	May-08	90-un	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Line No.
Company Owned Generation Hydro	765	741	714	503	533	487	349	303	434	299	441	627	-
	6,221	5,907	5,710	5,658	5,827	6,004	6,250	6,298	960'9	5,713	6,210	6,338	7
	108	Ξ	167	126	146	149	147	127	127	134	134	113	ო
Total Company Owned Generation	7,093	6,759	6,591	6,287	6,505	6,641	6,745	6,728	6,658	6,146	6,785	7,079	4
Purchased & Exchanges												;	1
Long Term Firm	829	860	734	805	826	875	996	1,005	880	849	928	926	S.
Mid Columbia	268	230	201	234	251	265	252	200	162	180	202	229	9
	202	91	(42)	F	(161)	(20)	(67)	(252)	(246)	(37)	20	508	7
Short Term Firm Purchases	869	701	726	632	277	578	779	779	753	484	493	488	۵
System Balancing	964	983	1,011	329	489	628	618	648	646	791	634	633	တ
Total Purchased Power and													
	2,991	2,866	2,630	2,039	1,982	2,295	2,548	2,380	2,194	2,267	2,310	2,484	9
	10,084	9,625	9,220	8,326	8,487	8,936	9,294	9,108	8,852	8,413	9,095	9,563	Ξ
	3,297	3,067	3,002	2,297	2,325	2,274	1,988	2,069	2,435	2,241	2,336	2,450	12
System Net of Special Sales	6,787	6,558	6,219	6,029	6,162	6,663	7,306	7,039	6,417	6,172	6,759	7,114	13

Notes: (1) Includes GP Camas Co-generation

Case UE-Exhibit PPL/203 Witness: Mark T. Widmer

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Exhibit Accompanying Direct Testimony of Mark T. Widmer NORMALIZED SOURCES OF PEAK CAPACITY

PacifiCorp Normalized Sources of Peak Capacity 12 Months Ending December 2008

						Annual En		
Line	Description	Winter Peak December MW	% of Total Capacity	Summer Peak July MW	% of Total Capacity	GWH	% of Total Requirement	Line No.
<u>No.</u>	Description	December www	Сараспу	July WW	Capacity	awii	riequirement	110.
	Company Owned Generation							_
1	Hydro	1,012	9.26%	1,084	10.39%	4,529	5.68%	
2	Thermal (1) (2)	6,364	58.23%	6,327	60.67%	52,883	66.28%	2
3	Wind	74	0.68%	72	0.69%	1,164	1.46%	3
4	Total Company Owned Generation	7,450	68.17%	7,482	71.75%	58,576	73.41%	4
	Purchased & Exchanges							
5	Long Term Firm	930	8.51%	1,175	11.27%	7,695	9.64%	5
6	Mid Columbia	476	4.36%	476	4.56%	1,959	2.46%	6
7	Exchanges	1,017	9.31%	113	1.09%	(217)	-0.27%	7
8	Short Term Firm Purchases	400	3.66%	625	5.99%	5,627	7.05%	8
9	System Balancing	654	5.99%	556	5.33%	6,151	7.71%	9
	Total Purchased Power and							
10	Exchange	3,478	31.83%	2,946	28.25%	21,216	26.59%	10
11	Total Resources	10,928	100.00%	10,428	100.00%	79,792	100.00%	11
12	Special Sales	2,709		1,534		21,785		12
13	System Net of Special Sales	8,219		8,894		58,007		13

Notes:

- (1) Includes GP Camas Co-generation
- (2) After Derates, Maintenance and Reserves

Case UE-Exhibit PPL/300 Witness: Judith M. Ridenour

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Direct Testimony of Judith M. Ridenour PRICING & TARIFFS

1	Q.	Please state your name, business address and present position with
2		PacifiCorp, dba Pacific Power & Light Company (the Company).
3	A.	My name is Judith M. Ridenour. My business address is 825 NE Multnomah St.,
4		Suite 2000, Portland, Oregon 97232. My present position is Senior Analyst,
5		Pricing & Cost of Service, in the Regulation Department.
6	Q.	Briefly describe your educational and professional background.
7	A.	I hold a Bachelor of Arts degree in Mathematics from Reed College. I joined the
8		Company in the Regulation Department in October 2000. I assumed my present
9		responsibilities in May 2001.
10	Q.	Please describe your current duties.
11	A.	I am responsible for the preparation of rate design used in retail price filings and
12		related analyses. Since 2001, with levels of increasing responsibility, I have
13		analyzed and implemented rate design proposals throughout the Company's six
14		state service territory, including those contained in the Company's last Oregon
15		General Rate Case, Docket UE-179.
16	Purp	oose of Testimony
17	Q.	What are your responsibilities in this proceeding?
18	A.	I will present the Company's proposed prices and proposed tariffs. I will also
19		provide a comparison of existing and estimated customer rates.
20	Price	e Change and Tariffs
21	Q.	How does the Company propose to collect the price change from customers?
22	A.	Consistent with past TAM filings and with OAR 860-038-0200 Unbundling, the
23		Company proposes to spread the revenue change to customer classes by a uniform

1		percentage change to the present generation-related revenues being collected
2		through Schedule 200, Cost-Based Supply Service. The revenue change will be
3		applied on a cents per kilowatt-hour basis through revised Schedule 200 rates.
4	Q.	Have you prepared an exhibit showing the calculation of the proposed rate
5		changes?
6	A.	Yes. Exhibit PPL/301 shows the calculation of the proposed change to Schedule
7		200 rates. Columns 1 and 2 list the Delivery Service schedules receiving Cost-
8		Based Supply Service on Schedule 200. Column 3 shows the forecast kilowatt-
9		hours from UE-179 upon which present rates are based. Column 4 shows the
10		present Schedule 200 Cost-Based Supply Service revenues as approved in the
11		Company's last TAM filing effective January 1, 2007; column 4 excludes
12		Delivery Service revenues. Column 5 calculates the revenue change by Delivery
13		Service schedule. Column 6 translates the revenue change into a cents per
14		kilowatt-hour change which will be added to present Schedule 200 rates.
15	Q.	Please describe Exhibit PPL/302.
16	A.	Exhibit PPL/302 contains the revised Schedule 200, Cost-Based Supply Service.
17		The cents per kilowatt-hour rates shown in Exhibit PPL/301 have been added to
18		the present rates for each Delivery Service schedule listed in Schedule 200. For
19		Delivery Service schedules with multiple rate blocks on Schedule 200, the rate
20		increase applies equally to each block.
21	Q.	Is the Company proposing changes to its one-year option Transition
22		Adjustment tariff (Schedule 294) at this time?
23	A.	No. As indicated in Ms. Kelly's testimony, the Transition Adjustment will be

1		established in November, just prior to the open enrollment window. The
2		Company will file changes to Schedule 294, Transition Adjustment, once the
3		2008 rates have been posted and are known.
4	Com	parison of Existing and Estimated Customer Rates
5	Q.	What are the overall estimated effects of the changes proposed in this filing
6	A.	The overall estimated increase to rates is 3.9 percent on a net basis. Exhibit
7		PPL/303 shows the estimated effect of the Company's proposed prices by
8		Delivery Service schedule both base and net of applicable adjustment schedules.
9		The net rates in Columns 7 and 10 exclude effects of the Low Income Bill
10		Payment Assistance Charge (Schedule 91), the BPA Energy Discount (Schedule
11		98), and the Public Purpose Charge (Schedule 290).
12	Q.	Have you prepared an exhibit which shows a comparison of existing and
13		estimated customer rates?
14	A.	Yes. Exhibit PPL/304 contains monthly billing comparisons for various size
15		customers on each of the main residential, commercial and industrial Delivery
16		Service schedules. Each bill impact is shown in both dollars and percentages.
17		These bill comparisons include the effects of all adjustment schedules including
18		Low Income Bill Payment Assistance Charge (Schedule 91) and the Public
19		Purpose Charge (Schedule 290). The effects of the BPA Energy Discount
20		(Schedule 98) are included only in the bill comparisons for Residential Schedule
21		4 and Irrigation Schedule 41 as the majority of customers on those schedules
22		qualify for the BPA credit while the majority of customers on the general service
23		schedules do not.

- 1 Q. What is the estimated monthly impact to an average size residential
- 2 customer using 1,000 kilowatt-hours?
- 3 A. The estimated monthly impact to a residential customer using 1,000 kilowatt-
- 4 hours is \$2.81.
- 5 Q. Does this conclude your direct testimony?
- 6 A. Yes.

Case UE-Exhibit PPL/301

Witness: Judith M. Ridenour

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Exhibit Accompanying Direct Testimony of Judith M. Ridenour

DEVELOPMENT OF TAM ADJUSTMENT FOR JANUARY 1, 2008

PACIFIC POWER & LIGHT COMPANY
DEVELOPMENT OF TAM ADJUSTMENT FOR JANUARY 1, 2008
FORECAST 12 MONTHS ENDED DECEMBER 31, 2007

		40		Sch 200	Proposed TAM Adjustment	osed
Zo.	Description	No.	kWh	Revenue	Revenue	Cents\kWh
	(1)	[3]	(3)	(4)	(5)	(9)
						(6)/(3)
	Residential					
-	Residential	4	5,423,447,855	\$211,209,746	\$14,779,907	0.273
7	Total Residential		5,423,447,855	\$211,209,746	\$14,779,907	
	Commercial & Industrial					
3	Gen. Svc. < 31 kW	23	1,156,146,030	\$46,183,677	\$3,231,813	0.280
4	Gen. Svc. 31 - 200 kW	28	2,076,346,691	\$81,166,615	\$5,679,828	0.274
S	Gen. Svc. 201 - 999 kW	30	1,332,132,861	\$50,603,643	\$3,541,111	0.266
9	Large General Service >= 1,000 kW	48	3,116,065,292	\$110,824,805	\$7,755,231	0.249
7	Partial Req. Svc. $>= 1,000 \text{ kW}$	47	208,767,290	\$7,313,641	\$511,790	0.249
∞	Agricultural Pumping Service	41	108,189,038	\$4,217,123	\$295,103	0.273
6	Total Commercial & Industrial		7,997,647,202	\$300,309,504	\$21,014,876	
	Lighting					
10	Outdoor Area Lighting Service	15	11,554,534	\$247,829	\$17,342	0.150
11	Street Lighting Service	20	11,406,000	\$203,462	\$14,238	0.125
12	Street Lighting Service HPS	51	15,574,917	\$438,584	\$30,691	0.197
13	Street Lighting Service	52	1,827,840	\$39,447	\$2,760	0.151
14	Street Lighting Service	53	8,459,069	\$77,992	\$5,458	0.065
15	Recreational Field Lighting	54	836,416	\$13,274	\$929	0.111
16	Total Public Street Lighting		49,658,776	\$1,020,588	\$71,418	
17	Total Sales to Ultimate Consumers		13,470,753,833	\$512,539,838	\$35,866,201	
18	Employee Discount			(\$216,385)	(\$15,142)	
19	Total Sales with Employee Discount		13,470,753,833	\$512,323,453	\$35,851,059	

Case UE-Exhibit PPL/302 Witness: Judith M. Ridenour

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Exhibit Accompanying Direct Testimony of Judith M. Ridenour SCHEDULE 200 PROPOSED TARIFF CHANGES

PACIFIC POWER & LIGHT COMPANY COST-BASED SUPPLY SERVICE

OREGON SCHEDULE 200

Page 1

Available

In all territory served by the Company in the State of Oregon.

Applicable

To Residential Consumers and Nonresidential Consumers who have elected to take this service or who have elected to take service under Schedules 212 or 213. This service may be taken only in conjunction with the applicable Delivery Service Schedule. Also applicable to Nonresidential Consumers who, based on the announcement date defined in OAR 860-038-270, do not elect to receive standard offer service under Schedule 220 or direct access service under the applicable tariff. In addition, applicable to some Large Nonresidential Consumers on Schedule 400 whose special contracts require prices under the Company's previously applicable Schedule 48T. For Consumers on Schedule 400 who were served on previously applicable Schedule 48T prices under their special contract, this service, in conjunction with Delivery Service Schedule 48, supersedes previous Schedule 48T.

Nonresidential Consumers who had chosen either service under Schedule 220 or who chose to receive direct access service under the applicable tariff may qualify to return to service under this Schedule after meeting the Returning Service Requirements and making a Returning Service Payment as specified in this Schedule.

Energy Charge

The Monthly Billing shall be the Energy Charge.

Delive	ery Service Schedule No.	Del	livery Voltage	<u>1</u>	(I)
4	Per kWh 0 - 500 kWh 501-1000 kWh > 1000 kWh	Secondary 3.557¢ 4.209¢ 5.185¢	Primary	Transmission	
	For Schedule 4, the kilowatt-hour blocks listed approximately 30.42 days. Residential kilowat whole kilowatt-hour based upon the number of for details).	t-hour blocks sha	all be prorated	to the nearest	
23	First 3,000 kWh, per kWh All additional kWh, per kWh	4.538¢ 3.379¢	4.422¢ 3.295¢		
28	First 20,000 kWh, per kWh All additional kWh, per kWh	4.217¢ 4.104¢	4.139¢ 4.029¢		
30	First 20,000 kWh, per kWh All additional kWh, per kWh	4.586¢ 3.981¢	4.495¢ 3.891¢		
41	Winter, first 100 kWh/kW, per kWh Winter, all additional kWh, per kWh	6.070¢ 4.147¢	5.912¢ 4.042¢		(I)
	(continued)				

Issued:

April 2, 2007

P.U.C. OR No. 35

Effective:

With service rendered on and after

Twelfth Revision of Sheet No. 200-1

January 1, 2008

Canceling Eleventh Revision of Sheet No. 200-1

Issued By

Andrea L. Kelly, Vice President, Regulation

TF1 200-1.REV

Advice No. 07-011

PACIFIC POWER & LIGHT COMPANY COST-BASED SUPPLY SERVICE

OREGON SCHEDULE 200

Page 2

(I)

Energy Charge (continued

rgy Charg	e (continued)				
				livery Volta	
<u>Delive</u> 41	<u>ry Service Schedule No</u> Summer, all kWh, per k		Secondary 4.147¢	Primary 4.042¢	Transmission
	For Schedule 41, Winte Summer is defined as s				through March 31,
47/48	Per kWh On-Peak Per kWh, Off-Peak		4.008¢ 3.908¢	3.829¢ 3.729¢	3.662¢ 3.562¢
	For Schedule 47 and Sthrough Saturday exclu				
	Due to the expansions U.S. Energy Policy Act later for the period between	of 2005, the time per veen the second Sun	riods shown abov Iday in March an	e will begin d the first S	and end one hour unday in April and
52	For dusk to dawn opera		2.309¢ 2.309¢		
54	Per kWh		1.698¢		
15	Type of Luminaire	Nominal Rating	Monthly kW	h Rate	Per Luminaire
	Mercury Vapor	7,000	76		\$1.74
	Mercury Vapor	21,000	172		\$3.95
	Mercury Vapor	55,000	412		\$9.46
	High Pressure Sodium	5,800	31		\$0.71
	High Pressure Sodium	22,000	85		\$1.95
	High Pressure Sodium	50,000	176		\$4.04
50	A. Company-owned O Street lights supported		ood poles: Merc	ury Vapor La	amps.
	Nominal Lumen Ratin	<u>g</u> <u>7</u> (Monthly 76		21,000 172 kWh)	<u>55,000</u> (Monthly 412 kWh)

Nominal Lumen Rating	<u>7,000</u>	<u>21,000</u>	<u>55,000</u>
	(Monthly 76 kWh)	(Monthly 172 kWh)	(Monthly 412 kWh)
Horizontal, per lamp	\$1.45	\$3.28	\$7.87
Vertical, per lamp	\$1.45	\$3.28	

Street lights supported on distribution type metal poles: Mercury Vapor Lamps.

Nominal Lumen Rating	<u>7,000</u>	<u>21,000</u>	<u>55,000</u>
(Monthly	76 kWh)	(Monthly 172 kWh)	(Monthly 412 kWh)
On 26-foot poles, horizontal, per lamp	\$1.45		
On 26-foot poles, vertical, per lamp	\$1.45		
On 30-foot poles, horizontal, per lamp		\$3.28	
On 30-foot poles, vertical, per lamp		\$3.28	
On 33-foot poles, horizontal, per lamp			\$7.87
(continue	d)		

P.U.C. OR No. 35 Issued: April 2, 2007

Effective: With service rendered on and after Twelfth Revision of Sheet No. 200-2

January 1, 2008 Canceling Eleventh Revision of Sheet No. 200-2

Issued By

Andrea L. Kelly, Vice President, Regulation

TF1 200-2.REV

Advice No. 07-011

(I)

PACIFIC POWER & LIGHT COMPANY COST-BASED SUPPLY SERVICE

OREGON SCHEDULE 200

Advice No. 07-011

Page 3

Energy Charge (continued)

Delivery Service Schedule No.

B. Company-owned Underground System

	Nominal Lumen Rating		7,000 (Monthly 76 kWh)	21,000 (Monthly 172 kWh)	55,000 (Monthly 412 kWh)	(I)
	On 26-foot poles, horizo On 26-foot poles, vertica On 30-foot poles, horizo	ntal, per lamp al, per lamp	\$1.45 \$1.45	\$3.28	(Working 412 KVVII)	
	On 30-foot poles, vertica			\$3.28		
	On 33-foot poles, horizo			ψο.20	\$7.87	
51	Types of Luminaire	Nominal ratir		ly kWh Rate	Per Luminaire	
	High Pressure Sodium	5,800	31		\$0.93	
	High Pressure Sodium	9,500	44		\$1.33	
	High Pressure Sodium	16,000	64		\$1.93	
	High Pressure Sodium	22,000	85		\$2.56	
	High Pressure Sodium	27,500	115		\$3.46	
	High Pressure Sodium	50,000	176		\$5.30	
	Metal Halide	9,000	39		\$1.18	
	Metal Halide	12,000	68		\$2.05	
	Metal Halide	19,500	94		\$2.83	
	Metal Halide	32,000	149		\$4.49	
53	Types of Luminaire	Nominal ratin		y kWh Rate	Per Luminaire	
	High Pressure Sodium	5,800	31		\$0.31	1
	High Pressure Sodium	9,500	44		\$0.43	
	High Pressure Sodium	16,000	64		\$0.63	
	High Pressure Sodium	22,000	85		\$0.84	
	High Pressure Sodium	27,500	115		\$1.14	
	High Pressure Sodium	50,000	176		\$1.74	
	Metal Halide	9,000	39		\$0.38	
	Metal Halide	12,000	68		\$0.67	
	Metal Halide	19,500	94		\$0.93	
	Metal Halide	32,000	149		\$1.47	
	Metal Halide	107,800	354		\$3.49	
	Non-Listed Luminaire, p	er kWh	0.987	' ¢		(I)

(continued)

Issued: April 2, 2007 P.U.C. OR No. 35

Effective: With service rendered on and after Eleventh Revision of Sheet No. 200-3

January 1, 2008 Canceling Tenth Revision of Sheet No. 200-3

Issued By Andrea L. Kelly, Vice President, Regulation

Case UE-Exhibit PPL/303 Witness: Judith M. Ridenour

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Exhibit Accompanying Direct Testimony of Judith M. Ridenour
ESTIMATED EFFECTS OF PROPOSED PRICE CHANGE TO SCHEDULE 200

PACIFIC POWER & LIGHT COMPANY
ESTIMATED EFFECT OF PROPOSED PRICE CHANGE TO SCHEDULE 200
ON REVENUES FROM ELECTRIC SALES TO ULTIMATE CONSUMERS
DISTRIBUTED BY RATE SCHEDULES IN OREGON
FORECAST 12 MONTHS ENDED DECEMBER 31, 2007

					Present	Present Revenues (\$000)	(00	Propos	Proposed Revenues (\$000)	(000)		Change			
ij	45S		No. of	I	Base		Net	Base		Net	Base Rates	tes	Net Rates		Line
Ž	Description		Cust	MWh	Rates	Adders1	Rates	Rates	Adders	Rates	(\$000)	% ₂	(\$000)	<i>‰</i> ²	Š.
	(@	(4)	(5)	9	(£)	(8)	(6)	(10)	(11)	(12)	(13)	(14)	
							(2) + (6)			(6) + (8)	(8) - (5)	(11)/(5)	(10) - (1)	(13)/(7)	
•	Residential	Ý	770	6 473 440	\$442,670	66.617	900 0503	6,458,450	46.617	\$465,076	\$14.780	3.3%	\$14.780	3.3%	-
-	Kesidential 4	+	407,940	3,473,440	3445,079	40,017	0420,520	CC+,0C+4	10,00	010,010	001,110	200	100	230%	,
7	Total Residential	46	467,946	5,423,448	\$443,679	\$6,617	\$450,296	\$458,459	\$6,617	\$465,076	\$14,780	3.3%	\$14,780	5.3%	7
	Commercial & Industrial														
3	Gen. Svc. < 31 kW 23		70,185	1,156,146	\$95,208	(\$5,434)	\$89,774	\$98,440	(\$5,434)	\$93,006	\$3,232	3.4%	\$3,232	3.6%	3
4	Gen. Svc. 31 - 200 kW 28		9,623	2,076,347	\$117,957	\$11,794	\$129,751	\$123,637	\$11,794	\$135,430	\$5,680	4.8%	\$5,680	4.4%	4
5	Gen. Svc. 201 - 999 kW 30	. 0	797	1,332,133	\$70,564	\$4,463	\$75,027	\$74,105	\$4,463	\$78,568	\$3,541	5.0%	\$3,541	4.7%	2
9	Large General Service >= 1,000 kW 48	∞	222	3,116,066	\$139,791	(\$340)	\$139,451	\$147,546	(\$340)	\$147,206	\$7,755	5.5%	\$7,755	2.5%	9
7	Partial Req. Svc. >= 1,000 kW 47	7	8	208,767	\$9,912	(\$32)	\$9,880	\$10,424	(\$32)	\$10,392	\$512	5.5%	\$215	2.5%	7
∞	Agricultural Pumping Service 41		6,240	108,189	\$11,092	(\$2,600)	\$8,492	\$11,387	(\$2,600)	\$8,787	\$295	2.7%	\$295	3.5%	∞
6	Agricultural Pumping - Other 33		2,117	106,792	\$1,543	\$0	\$1,543	\$1,543	\$0	\$1,543	\$0	0.0%	\$0	0.0%	6
10	Total Commercial & Industrial	"	89,192	8,104,440	\$446,067	\$7,850	\$453,917	\$467,082	\$7,850	\$474,932	\$21,015	4.7%	\$21,015	4.6%	10
	Lighting												;		:
Ξ	Outdoor Area Lighting Service 13	15	7,718	11,556	\$1,404	\$125	\$1,529	\$1,421	\$125	\$1,546	\$17	1.2%	\$17	1.1%	=
12	Street Lighting Service 50	50	317	11,406	\$1,213	\$113	\$1,326	\$1,227	\$113	\$1,340	\$14	1.2%	\$14	1.1%	12
13	Street Lighting Service HPS 51	1!	099	15,575	\$2,663	\$235	\$2,898	\$2,694	\$235	\$2,928	\$31	1.2%	\$31	1.1%	13
14		52	112	1,828	\$217	\$18	\$235	\$220	\$18	\$238	\$3	1.3%	\$3	1.2%	14
15	Street Lighting Service 5	53	229	8,459	\$525	\$56	\$581	\$530	\$56	\$586	\$	1.0%	\$2	%6.0	15
16	Recreational Field Lighting	54	86	836	\$69	\$5	\$74	\$70	\$5	\$75	\$1	1.4%	\$1	1.3%	16
17	Total Public Street Lighting		9,134	49,660	\$6,091	\$551	\$6,642	\$6,162	\$551	\$6,714	\$71	1.2%	\$71	1.1%	17
18	Total Sales to Ultimate Consumers	Š	566,272	13,577,548	\$895,837	\$15,018	\$910,855	\$931,703	\$15,018	\$946,722	\$35,866	4.0%	\$35,866	3.9%	81
19	Employee Discount			21,641	(\$438)	(\$5)	(\$443)	(\$453)	(\$5)	(\$458)	(\$15)	'	(\$15)		61
20	Total Sales with Employee Discount	Š	566,272	13,577,548	\$895,399	\$15,013	\$910,412	\$931,250	\$15,013	\$946,264	\$35,851	4.0%	\$35,851	3.9%	20
21	AGA Revenue				\$1,554		\$1,554	\$1,554		\$1,554	\$0		\$0		21
22	Total Sales with Employee Discount and AGA		566,272	13,577,548	\$896,953	\$15,013	\$911,966	\$932,804	\$15,013	\$947,818	\$35,851	4.0%	\$35,851	3.9%	22

¹ Excludes effects of the BPA Energy Discount (Schedule 98), Low Income Bill Payment Assistance Charge (Schedule 91) and Public Purpose Charge (Schedule 290).
² Percentages shown for Schedules 48 and 47 reflect the combined rate change for both schedules

Case UE-Exhibit PPL/304 Witness: Judith M. Ridenour

BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

PACIFICORP

Exhibit Accompanying Direct Testimony of Judith M. Ridenour MONTHLY BILLING COMPARISONS

Pacific Power & Light Company Monthly Billing Comparison Delivery Service Schedule 4 + Supply Service Schedule 200 Residential Service

D:cc	
Difference	Difference
\$0.28	2.03%
\$0.57	2.91%
\$0.83	3.27%
\$1.13	3.63%
\$1.40	3.80%
*4 -60	
	3.83%
	3.82%
\$2.25	3.84%
\$2.53	3.85%
\$2.81	3.85%
	• • • •
	3.82%
	3.77%
\$3.65	3.74%
\$3.94	3.72%
\$4.21	3.69%
\$4.50	3.68%
	3.62%
	3.55%
	3.51%
\$14.00	3.50%
	\$0.57 \$0.83 \$1.13 \$1.40 \$1.69 \$1.96 \$2.25 \$2.53 \$2.81 \$3.10 \$3.37 \$3.65 \$3.94

^{*} Net rate including Schedules 91 and 299 and BPA Energy Discount.

Note: Assumed average billing cycle length of 30.42 days.

Pacific Power & Light Company
Monthly Billing Comparison
Delivery Service Schedule 23 + Supply Service Schedule 200
General Service - Secondary Delivery Voltage

nt	nce	Three Phase	2.46%	2.88%	3.14%	3.44%	3.14%	3.62%	3.82%	4.10%	3.76%	4.15%	4.37%	4.52%	4.10%	4.33%	4.48%	4.59%	4.09%	4.33%	4.48%	4.59%
Percent	Difference	Single Phase	2.87%	3.22%	3.45%	3.68%	3.45%	3.82%	3.96%	4.22%	3.86%	4.23%	4.44%	4.57%	4.15%	4.37%	4.52%	4.62%	4.15%	4.37%	4.52%	4.62%
	Price	Three Phase	09\$	\$77	\$6\$	\$130	\$95	\$165	\$235	\$293	\$318	\$435	\$551	299\$	\$659	\$834	\$1,009	\$1,183	\$682	\$862	\$1,043	\$1,223
Monthly Billing*	Proposed Price	Single Phase	\$52	69\$	\$87	\$122	\$87	\$157	\$227	\$285	\$310	\$427	\$543	\$659	\$651	\$826	\$1,000	\$1,175	\$674	\$854	\$1,034	\$1,215
Monthly	Price	Three Phase	\$58	\$75	\$92	\$126	\$92	\$159	\$227	\$282	\$307	\$417	\$528	\$639	\$633	662\$	\$962	\$1,131	\$655	\$827	\$66\$	\$1,169
	Present Price	Single Phase	\$50	29\$	\$84	\$117	\$84	\$151	\$218	\$274	\$299	\$409	\$520	\$630	\$625	\$791	\$957	\$1,123	\$647	\$818	066\$	\$1,161
		kWh	200	750	1,000	1,500	1,000	2,000	3,000	4,000	4,000	9,000	8,000	10,000	9,000	12,000	15,000	18,000	9,300	12,400	15,500	18,600
	kW	Load Size	S				10				20				30				31			

* Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company Monthly Billing Comparison Delivery Service Schedule 23 + Supply Service Schedule 200 General Service - Primary Delivery Voltage

			Monthl	y Billing*		Pero	cent
kW		Presen	t Price	Propose	d Price	Diffe	rence
Load Size	kWh	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase
5	500	\$49	\$57	\$51	\$59	2.92%	2.51%
	750	\$66	\$74	\$68	\$76	3.31%	2.93%
	1,000	\$82	\$90	\$85	\$93	3.52%	3.21%
	1,500	\$115	\$123	\$119	\$127	3.78%	3.53%
10	1,000	\$82	\$90	\$85	\$93	3.52%	3.21%
	2,000	\$147	\$155	\$153	\$161	3.91%	3.71%
	3,000	\$212	\$221	\$221	\$229	4.07%	3.92%
	4,000	\$266	\$274	\$278	\$286	4.34%	4.20%
20	4,000	\$291	\$299	\$302	\$310	3.97%	3.86%
	6,000	\$398	\$406	\$415	\$423	4.35%	4.26%
	8,000	\$505	\$513	\$528	\$536	4.57%	4.49%
	10,000	\$612	\$621	\$641	\$649	4.71%	4.65%
30	9,000	\$608	\$616	\$634	\$642	4.27%	4.21%
	12,000	\$769	\$777	\$803	\$812	4.50%	4.45%
	15,000	\$930	\$938	\$973	\$981	4.65%	4.61%
	18,000	\$1,091	\$1,099	\$1,143	\$1,151	4.76%	4.72%

^{*} Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company Monthly Billing Comparison Delivery Service Schedule 28 + Supply Service Schedule 200 Large General Service - Secondary Delivery Voltage

kW		Monthly	Billing*	Percent
Load Size	kWh	Present Price	Proposed Price	Difference
15	4,500	\$300	\$325	8.35%
	7,500	\$448	\$482	7.48%
	10,500	\$597	\$639	7.04%
31	9,300	\$607	\$633	4.33%
	15,500	\$913	\$957	4.79%
	21,700	\$1,218	\$1,279	5.03%
40	12,000	\$779	\$813	4.35%
	20,000	\$1,175	\$1,231	4.80%
	28,000	\$1,561	\$1,640	5.06%
60	18,000	\$1,164	\$1,215	4.36%
	30,000	\$1,746	\$1,830	4.85%
	42,000	\$2,325	\$2,444	5.10%
80	24,000	\$1,540	\$1,607	4.40%
	40,000	\$2,312	\$2,425	4.88%
	56,000	\$3,085	\$3,243	5.12%
100	30,000	\$1,913	\$1,998	4.43%
	50,000	\$2,879	\$3,020	4.90%
	70,000	\$3,845	\$4,042	5.14%
200	60,000	\$3,760	\$3,929	4.50%
	100,000	\$5,691	\$5,974	4.96%
	140,000	\$7,623	\$8,018	5.18%

^{*} Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company Monthly Billing Comparison Delivery Service Schedule 28 + Supply Service Schedule 200 Large General Service - Primary Delivery Voltage

kW		Monthly	Billing*	Percent
Load Size	kWh	Present Price	Proposed Price	Difference
15	4,500	\$303	\$315	4.20%
	7,500	\$442	\$463	4.79%
	10,500	\$581	\$611	5.10%
31	9,300	* \$608	\$634	4.32%
	15,500	\$896	\$940	4.88%
	21,700	\$1,182	\$1,243	5.18%
40	12,000	\$780	\$814	4.34%
	20,000	\$1,151	\$1,208	4.90%
	28,000	\$1,514	\$1,593	5.22%
60	18,000	\$1,164	\$1,215	4.36%
	30,000	\$1,710	\$1,795	4.95%
	42,000	\$2,254	\$2,372	5.26%
80	24,000	\$1,538	\$1,606	4.40%
	40,000	\$2,263	\$2,376	4.99%
	56,000	\$2,988	\$3,146	5.29%
100	30,000	\$1,910	\$1,995	4.43%
	50,000	\$2,816	\$2,957	5.01%
	70,000	\$3,722	\$3,920	5.31%
200	60,000	\$3,736	\$3,905	4.53%
	100,000	\$5,548	\$5,830	5.09%
	140,000	\$7,360	\$7,755	5.37%

^{*} Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company
Monthly Billing Comparison
Delivery Service Schedule 30 + Supply Service Schedule 200
Large General Service - Secondary Delivery Voltage

ΚW		Monthly	Monthly Billing*	Percent
Load Size	kWh	Present Price	Proposed Price	Difference
001	30.000	\$2,113	\$2,195	3.89%
1	50,000	\$2,954	\$3,091	4.64%
	70,000	\$3,795	\$3,987	5.05%
200	00009	\$3,773	\$3,938	4.36%
! !	100,000	\$5,455	\$5,729	5.02%
	140,000	\$7,137	\$7,520	5.37%
300	000'06	\$5,546	\$5,793	4.45%
	150,000	\$8,069	\$8,480	5.09%
	210,000	\$10,592	\$11,167	5.43%
400	120,000	\$7,257	\$7,586	4.53%
	200,000	\$10,620	\$11,168	5.16%
	280,000	\$13,984	\$14,751	5.49%
200	150,000	\$8,973	\$9,384	4.58%
	250,000	\$13,178	\$13,863	5.20%
	350,000	\$17,382	\$18,341	5.52%
009	180,000	\$10,690	\$11,183	4.61%
	300,000	\$15,735	\$16,557	5.22%
	420,000	\$20,781	\$21,932	5.54%
800	240,000	\$14,123	\$14,781	4.66%
	400,000	\$20,850	\$21,946	5.26%
	260,000	\$27,578	\$29,112	2.56%
1000	300,000	\$17,556	\$18,378	4.68%
	500,000	\$25,965	\$27,335	5.28%
	700,000	\$34,374	\$36,292	5.58%

^{*} Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company
Monthly Billing Comparison
Delivery Service Schedule 30 + Supply Service Schedule 200
Large General Service - Primary Delivery Voltage

ΚW		Monthly	Monthly Billing*	Percent
Load Size	kWh	Present Price	Proposed Price	Difference
100	30.000	\$2.066	\$2,148	3.98%
	50,000	\$2,888	\$3,025	4.74%
	70,000	\$3,711	\$3,902	5.17%
200	00009	\$3,689	\$3,853	4.46%
	100,000	\$5,333	\$5,607	5.14%
	140,000	\$6,977	\$7,361	5.50%
300	90,000	\$5,420	\$5,666	4.55%
	150,000	\$7,886	\$8,297	5.21%
	210,000	\$10,353	\$10,928	5.56%
400	120,000	\$7,109	\$7,438	4.62%
	200,000	\$10,398	\$10,946	5.27%
	280,000	\$13,686	\$14,453	5.61%
200	150,000	\$8,788	\$9,199	4.68%
	250,000	\$12,899	\$13,584	5.31%
	350,000	\$17,010	\$17,969	5.64%
009	180,000	\$10,468	\$10,961	4.71%
	300,000	\$15,400	\$16,222	5.34%
	420,000	\$20,333	\$21,484	2.66%
800	240,000	\$13,826	\$14,484	4.76%
	400,000	\$20,403	\$21,499	5.37%
	260,000	\$26,980	\$28,515	2.69%
1000	300,000	\$17,184	\$18,006	4.78%
	500,000	\$25,406	\$26,776	5.39%
	700,000	\$33,628	\$35,545	5.70%

^{*} Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company
Billing Comparison
Delivery Service Schedule 41 + Supply Service Schedule 200
Agricultural Pumping - Secondary Delivery Voltage

		1	Present Price*			Proposed Price*		Pe	Percent Difference	
		April -	December-	Annual	April -	December-	Annual	April -	December-	Annual
kW		November	March	Load Size	November	March	Load Size	November	March	Load Size
Load Size	kWh	Monthly Bill	Monthly Bill	Charge	Monthly Bill	Monthly Bill	Charge	Monthly Bill	Monthly Bill	Charge
Single Phase										
10	3,000	\$157	\$176	\$185	\$165	\$185	\$185	5.39%	4.78%	0.00%
	5,000	\$261	\$281	\$185	\$275	\$295	\$185	5.38%	5.01%	0.00%
	7,000	\$366	\$385	\$185	\$385	\$405	\$185	5.38%	5.11%	0.00%
Three Phase										
20	6,000	\$313	\$353	\$371	\$330	\$370	\$371	5.38%	4.78%	0.00%
	10,000	\$522	\$562	\$371	\$550	\$590	\$371	5.38%	5.01%	0.00%
	14,000	\$731	\$771	\$371	\$770	\$810	\$371	2.39%	5.11%	0.00%
100	30,000	\$1,591	\$1,789	\$1,504	\$1,675	\$1,873	\$1,504	5.30%	4.72%	0.00%
	50,000	\$2,651	\$2,849	\$1,504	\$2,792	\$2,990	\$1,504	5.30%	4.93%	0.00%
	70,000	\$3,712	\$3,910	\$1,504	\$3,909	\$4,107	\$1,504	5.30%	5.03%	0.00%
300	90,000	\$4,772	\$5,366	\$3,770	\$5,025	\$5,620	\$3,770	5.30%	4.72%	0.00%
	150,000	\$7,954	\$8,548	\$3,770	\$8,376	\$8,970	\$3,770	5.30%	4.93%	0.00%
	210,000	\$11,135	\$11,729	\$3,770	\$11,726	\$12,320	\$3,770	5.30%	5.03%	0.00%

* Net rate including Schedules 91 and 299 and BPA Energy Discount.

Pacific Power & Light Company
Billing Comparison
Delivery Service Schedule 41 + Supply Service Schedule 200
Agricultural Pumping - Primary Delivery Voltage

	,	ill Charge		% 00:00%			% 00:00%		% 0.00%		•		% 0.00%		
Percent Difference	December- March	Monthly Bill	4.99	5.24%	5.35			5.24%		•	5.16%			5.16%	
	April - November	Monthly Bill	5.64%	5.64%	5.64%		5.64%	5.64%	5.64%	5.55%	5.55%	5.55%	5.55%	5.55%	5.55%
	Annual Load Size	Charge	\$185	\$185	\$185		\$371	\$371	\$371	\$1,494	\$1,494	\$1,494	\$3,760	\$3,760	\$3,760
Proposed Price*	December- March	Monthly Bill	\$177	\$283	\$388		\$354	\$565	9118	\$1,796	\$2,865	\$3,935	\$5,389	\$8,596	\$11,804
I	April - November	Monthly Bill	\$158	\$263	\$369		\$316	\$527	\$737	\$1,604	\$2,673	\$3,742	\$4,811	\$8,019	\$11,226
	Annual Load Size	Charge	\$185	\$185	\$185		\$371	\$371	\$371	\$1,494	\$1,494	\$1,494	\$3,760	\$3,760	\$3,760
Present Price*	December- March	Monthly Bill	\$169	\$268	\$368		\$338	\$537	\$736	\$1,712	\$2,725	\$3,738	\$5,136	\$8,175	\$11,213
	April - November	Monthly Bill	\$150	\$249	\$349		\$299	\$498	869\$	\$1,519	\$2,532	\$3,545	\$4,558	\$7,597	\$10,636
		kWh	3.000	5,000	7,000		000'9	10,000	14,000	30,000	50,000	70,000	90,000	150,000	210,000
	kW	Load Size	Single Phase	1		Three Phase	20			100			300		

* Net rate including Schedules 91 and 299 and BPA Energy Discount.

Delivery Service Schedule 48 + Supply Service Schedule 200 Large General Service - Secondary Delivery Voltage Pacific Power & Light Company Monthly Billing Comparison 1,000 kW and Over

kW		Monthly	Monthly Billing	Percent
Load Size	kWh	Present Price	Proposed Price	Difference
1,000	300,000	\$16,590	\$17,359	4.64%
.	500,000	\$24,299	\$25,581	5.28%
	700,000	\$32,008	\$33,804	5.61%
2,000	000,009	\$32,861	\$34,400	4.68%
	1,000,000	\$48,279	\$50,844	5.31%
	1,400,000	\$63,697	\$67,288	5.64%
4,000	1,200,000	\$65,402	\$68,480	4.71%
	2,000,000	\$96,079	\$101,208	5.34%
	2,800,000	\$126,651	\$133,832	2.67%
9000'9	1,800,000	\$97,201	\$101,817	4.75%
	3,000,000	\$143,059	\$150,754	5.38%
	4,200,000	\$188,918	\$199,690	5.70%

Off-Peak kWh On-Peak kWh Notes:

^{*} Net rate including Schedules 91 and 299 and not including BPA Energy Discount. 61.24% 38.76%

Pacific Power & Light Company Monthly Billing Comparison Delivery Service Schedule 48 + Supply Service Schedule 200 Large General Service - Primary Delivery Voltage 1,000 kW and Over

kW		Monthl	y Billing	Percent	
Load Size	kWh	Present Price	Proposed Price	Difference	
1,000	300,000	\$15,272	\$16,041	5.04%	
1,000	500,000	\$22,610	\$23,892	5.67%	
	700,000	\$29,948	\$31,744	5.99%	
2,000	600,000	\$30,265	\$31,804	5.08%	
.,	1,000,000	\$44,942	\$47,506	5.71%	
	1,400,000	\$59,618	\$63,209	6.02%	
4,000	1,200,000	\$60,252	\$63,330	5.11%	
,	2,000,000	\$89,445	\$94,575	5.73%	
	2,800,000	\$118,535	\$125,716	6.06%	
6,000	1,800,000	\$90,053	\$94,669	5.13%	
,	3,000,000	\$133,686	\$141,381	5.76%	
	4,200,000	\$177,320	\$188,092	6.07%	

Notes:

On-Peak kWh 61.24% Off-Peak kWh 38.76%

st Net rate including Schedules 91 and 299 and not including BPA Energy Discount.

Pacific Power & Light Company
Monthly Billing Comparison
Delivery Service Schedule 48 + Supply Service Schedule 200
Large General Service - Transmission Delivery Voltage
1,000 kW and Over

kW		Monthly	Monthly Billing	Percent
Load Size	kWh	Present Price	Proposed Price	Difference
1,000	300,000	\$14,005	\$14,775	5.49%
	500,000	\$20,987	\$22,269	6.11%
	700,000	\$27,968	\$29,763	6.42%
2,000	000,009	\$27,742	\$29,281	5.55%
	1,000,000	\$41,705	\$44,270	6.15%
	1,400,000	\$55,668	\$59,259	6.45%
4,000	1,200,000	\$55,217	\$58,295	5.57%
	2,000,000	\$82,983	\$88,112	6.18%
	2,800,000	\$110,645	\$117,826	6.49%
9000	1,800,000	\$82,824	\$87,441	5.57%
	3,000,000	\$124,317	\$132,011	6.19%
	4,200,000	\$165,810	\$176,582	6.50%

Notes:

On-Peak kWh 56.02% Off-Peak kWh 43.98%

* Net rate including Schedules 91 and 299 and not including BPA Energy Discount.