
**PUBLIC UTILITY COMMISSION
OF OREGON**

UE 191

STAFF SUPPLEMENTAL TESTIMONY OF

Bill Wordley

**In the Matter of
PACIFICORP, dba PACIFIC POWER & LIGHT
COMPANY
2008 Transition Adjustment Mechanism.**

August 8, 2007

1 Q. ARE YOU THE SAME BILL WORDLEY THAT PROVIDED DIRECT
2 TESTIMONY (STAFF/100-102/WORDLEY) IN THIS DOCKET?

3 A. Yes.

4 Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

5 A. In this supplemental testimony I respond to PacifiCorp's rebuttal testimony
6 in order to provide a complete and full record for Commission
7 consideration. Attached as Staff/201, Wordley/1-4 is comprised of four
8 separate exhibits supporting staff's proposed recommendation. I will
9 describe the purpose and relevance of each exhibit in this testimony.

10 Q. PLEASE SUMMARIZE STAFF'S RECOMMENDATION FOR
11 ADJUSTMENTS TO PACIFICORP'S POWER COSTS.

12 A. Staff recommends that the Commission accept staff's updated -\$16.2
13 million adjustment to the company's power costs in Oregon to account for
14 the systematic positive margin the company receives from wholesale
15 transactions not included in the company's GRID modeled power costs
16 used in its filled case.

17 Q. PLEASE DESCRIBE STAFF/201, WORDLEY/1, ENTITLED "PGE
18 VERSES PAC MARGINS".

19 A. In this exhibit I am comparing PacifiCorp's margins on short-term
20 wholesale transactions not captured by the company's power cost
21 modeling to same information for PGE.

22 In PacifiCorp's rebuttal testimony (at PPL/204, Widmer/11-15), the
23 company is attempting to assert that the Commission's Order No. 07-015
24 in UE 180 is somehow relevant to this case. Staff has never proposed a

1 margin adjustment for PGE. So the attached exhibit "PGE vs Pac
2 Margins" provides the evidence for why Staff has concluded that PGE and
3 PacifiCorp are in completely different situations regarding the capability of
4 their power systems to systematically produce positive margins on the
5 "additional" wholesale transactions not captured by their respective power
6 cost models. Simply stated, PacifiCorp makes a positive margin and PGE
7 does not.

8 In addition, Staff disagrees with PacifiCorp that the margin adjustment
9 is in any way related to an extrinsic value adjustment. This point will be
10 demonstrated in my next exhibit; Staff/201, Wordley/3. In this case, Staff
11 did not propose an extrinsic value adjustment for PacifiCorp. Since the
12 Commission's order in UE 180 dealt only with extrinsic value, and not
13 margin, any suggestion of a comparable situation is incorrect.

14 **Q. PLEASE DESCRIBE THE EXAMPLE PROVIDED IN STAFF/201,**
15 **WORDLEY/2.**

16 A. Staff/201, Wordley/2 provides a simple example of short-term wholesale
17 transaction margins. In PacifiCorp's rebuttal testimony (at PPL/204,
18 Widmer/18), the company attempts to divert attention to the irrelevant total
19 wholesale margin data, and then misrepresents what staff has proposed in
20 its adjustment, which is the net wholesale transactions margin data (that
21 is, total actual wholesale transactions **less** the level of transactions
22 included in the company's filed case). What the exhibit illustrates is that
23 while the total actual wholesale margin may be negative (and is negative
24 in this example) the relevant margin, that is the margin on the "additional"

1 MWhs of sales on purchases not included in the GRID modeled power
2 costs, can be positive. Staff maintains the margin on the additional
3 wholesale transactions, not included in GRID is always positive. This
4 conclusion is supported by the available three years of actual versus
5 GRID modeled data analyzed by Staff.

6 **Q. STAFF/201, WORDLEY/3 SHOWS ACTUAL MWh VOLUMES**
7 **COMPARED TO MWh VOLUMES FILED BY PACIFICORP IN ITS**
8 **CASE. PLEASE EXPLAIN THIS EXHIBIT.**

9 A. In PacifiCorp's rebuttal testimony (at PPL/204, Widmer/18-21), the
10 company suggests that different levels of resources and different levels of
11 planned maintenance between the GRID filed and actual results, and
12 updates of "as filed" GRID cause a mismatch of costs and benefits. These
13 factors are "noise," and do not effect in any significant way the margin on
14 wholesale transactions not included in GRID. The exhibit demonstrates
15 that all the "additional" MWh of energy to make "additional" sales not
16 included in GRID is provided by the "additional" MWh of purchases not
17 included in GRID. This exhibit also demonstrates the independence of the
18 margin adjustment from any extrinsic value considerations, since extrinsic
19 value comes from undispached flexible power resources, not from
20 wholesale sales and purchase activity.

21 **Q. THE FINAL EXHIBIT, STAFF/201, WORDLEY/4 SHOWS TEN YEARS**
22 **OF PACIFICORP'S OREGON UNADJUSTED AND ADJUSTED NET**
23 **POWER COST DATA. PLEASE EXPLAIN THE RELEVANCE OF THIS**
24 **EXHIBIT.**

1 A. In PacifiCorp's rebuttal testimony (at PPL/204, Widmer/17), the company
2 implies that its power costs are systematically understated. While the
3 company provided no evidence to support its claim, the attached exhibit
4 "results of operations" clearly illustrates that, in fact, the company's power
5 costs in rates have been, and unfortunately currently still are,
6 systematically overstated by an estimated \$32 million in Oregon over the
7 last 10 years as seen in the results of operations reports provided, and
8 even more in the last five years that GRID has been used to forecast the
9 company's power costs. The normalizing adjustments make the adjusted
10 Net Power Costs on this exhibit comparable to the company's "normalized
11 rate-making paradigm" power costs that come out of GRID and are
12 included in PacifiCorp's filled case.

13 **Q. CAN YOU PLEASE SUMMARIZE THE CONTEXT OF YOUR**
14 **PROPOSED WHOLESALE MARGIN ADJUSTMENT AND COMPARE IT**
15 **TO THE CONTEXTUAL PICTURE OFFERED IN MR. WIDMER'S**
16 **REBUTTAL TESTIMONY?**

17 A. In the company's rebuttal testimony (at PPL/204, Widmer/16), the
18 company suggests that all of the approximately 3,000 MWa of wholesale
19 purchase and sales transactions not included in the GRID modeling are
20 due to the "long process" of system balancing. The company's rebuttal
21 fails to include large amounts of profit opportunity, based on trading that
22 PacifiCorp can and does take advantage of, that exist because of the
23 diverse characteristics of the Company's power supply system, which has
24 been paid for by customers.

1 **Q. PLEASE COMPARE THE HOW THE GRID MODEL SIMULATES**
2 **OPERATION OF THE COMPANY'S POWER SYSTEM TO WHAT**
3 **OCCURS IN THE ACTUAL OPERATION OF THE SYSTEM.**

4 A. Here is a basic description of the GRID model:

- 5 (1) GRID is a computer model built to simulate the economic operation of
6 PacifiCorp's power system and produces an estimate of power costs.
- 7 (2) The logic built into GRID produces "economic" energy by dispatching all of
8 the company's power resources with an operating cost less than the
9 market price for power that is input into GRID.
- 10 (3) The "economic" energy dispatched is used to serve PacifiCorp's system
11 requirements.
- 12 (4) System Requirements are the company's retail customer's load +
13 wholesale sales commitments.
- 14 (5) Any extra "economic" energy (above system requirements) is sold at
15 market price.
- 16 (6) Any shortage of "economic" energy (any amount less than system
17 requirements) is purchased at market price.
- 18 (7) The system is in balance.

19 Now here is how the system works in actual operation:

- 20 (1) In the actual world of economic power operations all of the GRID Model
21 description applies except there is more to it after (7) above.
- 22 (2) This is because in actual operations it is also economic for PacifiCorp to
23 use its extensive transmission system (including rights to the use of other
24 transmission owner's facilities) to participate in additional, profit-
25 opportunity-based, wholesale purchases and sales.
- 26 (3) Enter Power Trading. Example: Utility X, attached to PacifiCorp's system
27 at point A, wants to buy 50MW for \$50/MWh. Utility Y, attached to
28 PacifiCorp's system at point B (utility X and utility Y are not
29 interconnected), wants to sell 50 MW for \$48/MWh. PacifiCorp buys the

1 50MW at \$48/MWh from utility Y, sells the 50MW to utility X for \$50/MWh,
2 and pockets the \$100 margin $((\$50-\$48)*50MW)$.

- 3 (4) Utility X is happy, utility Y is happy, and PacifiCorp is happy. Not only did
4 PacifiCorp make \$100 on the transaction, but gets to keep the money,
5 because GRID does not include this as part of some 3,000MW per hour
6 (2006 actual data) of similar purchase and sale transactions. (Staff
7 recognizes that a small portion of the 3,000MW of "additional" wholesale
8 transactions is likely due to the "long process" of system balancing that
9 Mr. Widmer discusses at PPL/204, Widmer/16. However 3,000Mwa
10 represents an amount of energy equal to nearly one-half of PacifiCorp's
11 entire system load. Making the claim that all of this "additional" wholesale
12 activity is due to the long process of system balancing is not creditable).

13 Because of the actual operations of a system customers paid for, Staff
14 believes that the Commission should accept Staff's conservative proposed
15 margin adjustment, which accounts for the current systematic exclusion of
16 all the economic power trading activity from GRID. Staff recognizes that
17 realization of these margins also takes effort and competent work by the
18 Company to capture the value of its extensive and flexible power supply
19 system. This does not suggest that staff's proposed adjustment is
20 inappropriate. If anything, this could suggest that some type of sharing of,
21 for example, one-third of the margin with the Company may be
22 appropriate as an incentive to continue their good work in realizing these
23 margins.

24 **Q. WHAT IS YOUR FINAL RECOMMENDATION TO THE COMMISSION**
25 **REGARDING STAFF'S PROPOSED MARGIN ADJUSTMENT?**

- 26 A. Staff recommends that the Commission accept staff's updated -\$16.2
27 million adjustment to the company's power costs in Oregon to account for

1 the systematic positive margin the company receives from wholesale
2 transactions not included in the company's GRID modeled power costs.
3 Also, the Commission may consider sharing part of the adjustment (for
4 example, one-third) with the company in recognition of the company's
5 successful efforts to achieve the position margin, and as an incentive to
6 the company to continue the good work in realizing the benefits of the
7 capability of the company's power system.

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 **A. Yes.**

CASE: UE 191
WITNESS: Bill Wordley

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 201

**Exhibits in Support of
Supplemental Testimony**

August 8, 2007

PacifiCorp - UE 191
 Comparison between PGE and PacifiCorp wholesale margins
 not captured by the company's power cost modeling

PGE		PacifiCorp (Oregon)	
	\$/MWh		\$/MWh
2003	(\$1,078,195)	UE 134	\$16,181,407
2004	\$16,691,981	UE 147	\$5,775,913
2005	<u>(\$23,764,917)</u>	UE 170	<u>\$26,643,514</u>
Total	(\$8,151,131)	Total	\$48,600,833
Average	(\$2,717,044)	Average	\$16,200,278

PacifiCorp - UE 191

Example of \$/MWh Margins
on Total and additional* Wholesale Transactions

		Test Period		per MWh
		Sales	Purchases	Margin
GRID \$		5,000	6,000	
MWh		100	100	
\$/MWh		50	60	-10
Actual \$		15,000	15,500	
MWh		300	300	
\$/MWh		50	51.7	-1.7
"additional" wholesale Transactions				
Actual \$		10,000	9,500	
less MWh		200	200	
GRID \$/MWh		50	47.5	2.5

* "additional" wholesale transactions are the volume of short-term purchases and sales that occur in the actual operation of the company's power system, but are not captured by GRID and are not included in the PacifiCorp's filled case in UE 191

UE 191 - PacifiCorp TAM
Comparison of Actual short-term Wholesale Sales and Purchases to "as Filled"- Actual increase over "as Filled"

		Purchases		Sales		Diff in "additional" Sales vs "additional" Purchases Sales less Purchases
		MWh	Act % Inc over as Filled	MWh	Act % Inc over as Filled	
UE 134	Actual as Filled	18,190,389		19,574,764		
	Act Inc over as Filled	<u>3,165,837</u>	474.6%	<u>3,230,383</u>	506.0%	1,319,829
UE 147	Actual as Filled	17,706,193		18,928,022		
	Act Inc over as Filled	<u>6,138,896</u>	188.4%	<u>10,327,395</u>	83.3%	(2,966,670)
UE 170	Actual as Filled	29,132,314		34,387,824		
	Act Inc over as Filled	<u>4,525,911</u>	543.7%	<u>10,132,896</u>	239.4%	(351,475)
3 Yr Total	Actual as Filled	65,028,895		72,890,610		
	Act Inc over as Filled	<u>13,830,644</u>	370.2%	<u>23,690,674</u>	207.7%	(1,998,315)

PacifiCorp - Oregon
Results of Operations* - \$Millions
Net Power Costs

12 months ending	A		B		C		A+B-C		Net		
	Other Power Supply		Steam Production		Special Sales		Net Power Costs		Adjusted less		
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Unadjusted	
December-06	196.9	250.2	205.8	207.1	213.6	213.6	189.1	243.7		54.6	
March-06	191.5	255.0	196.0	195.9	202.2	202.2	185.3	248.7		63.4	
March-05	174.1	368.5	181.4	185.9	167.1	339.6	188.4	214.8		26.4	
March-04	154.1	212.0	171.7	171.7	157.2	157.2	168.6	226.5		57.9	
March-03	296.3	358.1	167.1	167.1	301.3	301.1	162.1	224.1		62.0	
March-02	508.2	587.2	185.3	188.1	491.5	493.7	202.0	281.6		79.6	
December-00	684.8	686.2	186.5	189.0	584.4	624.6	286.9	250.6		-36.3	
December-99	319.7	330.4	199.6	205.6	352.8	355.6	166.5	180.4		13.9	
December-98	820.9	799.9	209.8	198.4	421.7	393.1	609.0	605.2		-3.8	
December-97	421.6	379.0	200.9	201.0	482.0	437.3	140.5	142.7		2.2	
										10 year Total	\$ 319.9
										10 year Average	\$ 32.0

* Source: PacifiCorp - State of Oregon - Electric Utility - Actual, Adjusted, & Normalized Results of Operations
 "Adjusted" for Type 1 adjustments - "normalization for out of period adjustments and unusual items that occur in the test period"

STAFF/201
 WORDLEY/4