ORDER NO. 07-446

ENTERED 10/17/07

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 191

In the Matter of	)	
	)	
PACIFICORP, dba PACIFIC POWER	)	ORDER
	)	
2008 Transition Adjustment Mechanism.	)	

DISPOSITION: NET VARIABLE POWER COSTS APPROVED, SUBJECT TO ADJUSTMENTS ADOPTED IN DECISION

I. BACKGROUND

In Order No. 04-516 (Docket No. UM 1081), the Public Utility Commission of Oregon (Commission) adopted an interim transition adjustment mechanism (TAM) for PacifiCorp, dba Pacific Power (Pacific Power) to use for direct access during the fall 2004 open enrollment window. The Commission stated its desire was to develop a TAM that values resources based not only on Pacific Power's actual operational responses, but actual operational responses that are based on appropriate planning. In Order No. 04-516, the Commission ordered Pacific Power to file a TAM by November 15, 2004.

Pacific Power complied with the Order by filing its TAM, as part of its general rate case filing. (Docket UE 170) In Order No. 05-1050, the Commission adopted the TAM proposed by Pacific Power in UE 170, with annual updates and specific 2006 adjustments agreed to by the Public Utility Commission Staff (Staff) and Pacific Power.

In Order No. 05-1050, the Commission Staff observed that the purpose of the TAM is not to promote direct access. Rather, the purpose of the TAM is to capture costs associated with direct access, and prevent unwarranted cost shifting. Having adopted the TAM, however, the Commission Staff expressed its view that further investigation into some of the concerns raised by the parties would be necessary. The Commission Staff noted that it was "somewhat concerned" about establishing the TAM with its annual update because of the one-sidedness to Pacific Power's annual updates without concomitant adjustments by intervenors and Staff. The Commission Staff stated that it would continue to look at the TAM and "investigate to whatever extent we believe is necessary."

Pacific Power's next TAM filing was in docket UE 179, another general rate case. TAM related issues were resolved in a stipulation that was approved by the Commission in Order No. 06-530. That stipulation included a provision "capping" the net

power cost update for the 2007 TAM at $10 million. It did not cap or otherwise alter the calculation of the Transition Adjustment or net power cost update for years subsequent to 2007.

In principle, the 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, Pacific Power runs two studies using its Generation and Regulation Initiatives Decision Tools (GRID) model for each customer class. The base study optimizes Pacific Power'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.

Procedurally, in October 2007, prior to the posting of indicative prices, Pacific Power will update net power costs to reflect changes to Commission-ordered net power costs, the current forward price curve, new contracts and/or updates for wholesale sales, purchases, fuel and wheeling expenses through September 15, 2007. In November 2007, just prior to the direct access open enrollment window, the Company will produce a final GRID study incorporating its most recent forward price curve. The final GRID study will establish the Transition Adjustment and total Company net power costs for calendar year 2008.

The net power costs are defined as the sum of fuel expenses, wholesale purchase power expenses and wheeling expenses, less wholesale revenue. The net power costs are calculated for a future test period based on projected data using the GRID model. The net system load, wholesale sales and purchase power expenses, wheeling expenses, market prices of natural gas and electricity, fuel expenses, hydro generation, thermal heat rates, thermal planned maintenance and outages inputs were updated for this filing.

II. INTRODUCTION

Pacific Power submitted its testimony and exhibits on April 2, 2007. At the prehearing conference a schedule was adopted that anticipates a decision in this docket by October 19, 2007.

Reply testimony and exhibits were submitted by the Staff, the Citizens' Utility Board of Oregon (CUB) and the Industrial Customers of Northwest Utilities (ICNU) on June 27, 2007. On July 25, 2007, Pacific Power submitted rebuttal testimony and exhibits.

On August 8, 2007, Staff and ICNU each filed motions requesting the right to file supplemental testimony in response to Pacific Power's rebuttal testimony. Pacific Power opposed Staff's motion. Pacific Power did not oppose ICNU's motion. Staff's motion was granted. Pacific Power was allowed to file surrebuttal testimony in response to Staff's supplemental testimony.

There were two days of hearing in this matter. The case was submitted on concurrent opening and closing briefs.

CT Reserve Capability: Pacific Power accepted ICNU's recommendation to prospectively increase the quick start capability of the Gadsby and West Valley CTs, reducing total company net power costs by $0.2 million.

W-E Reserve Transfer: Pacific Power adopted ICNU's recommendation to leave the Company's West/East transfer capability turned on in GRID, reducing total company net power costs by $0.2 million.

Uneconomic CT Operation: Pacific Power accepted ICNU's adjustment removing West Valley from GRID, reducing total company net power costs by $1.6 million.

Planned Outages: Pacific Power agrees with a portion of the adjustment that reduces total net company power costs by an immaterial amount.

CUB

CUB-related issues are discussed in the body of the decision.

The total of these adjustments is $27.9 million, indicating that the net effect of the updates to other assumptions was to increase power costs by $6.4 million.

IV. ISSUES

A. *Staff*

1. *Staff Position*

Staff proposes an adjustment intended to recognize the positive margin on Pacific Power wholesale market transactions that are recognized by the GRID model. Staff attributes these results to "the wide reaching nature of Pacific Power's six-state power system."

The purpose of the GRID model is to simulate the actual operation of Pacific Power's power supply system. According to Staff, GRID systematically fails to capture nearly 75 percent of all short-term sales and purchase transactions. Staff states that the magnitude of this omission is "very significant." The omission averaged more than $16 million of profit margin on sales and purchase transactions as allocated to Oregon in the three years of available relevant history.

Staff defines the margin as "the difference between the average sales and the average purchase price times the average volume of omitted sales and purchase transactions." The volume of omitted sales and purchases is the difference in the MWh volume included in GRID and the actual MWh volume that occurs in the actual operation of the system.

Staff states that the volume of omitted sales nearly equals the volume of omitted purchases (within 2 percent). This means that the source of supply to make the

omitted sales was the omitted purchases. Thus the margin adjustment to account for the omitted transactions is simply the difference in the two average prices multiplied by the sum of the purchases and sales.

Responding to Pacific Power, Staff states that it never has proposed a margin adjustment for Portland General Electric Company (PGE). Staff states that Pacific Power's power system has the capability to systematically produce positive margins on the additional wholesale transactions not captured by GRID, while PGE's power system does not have such a capability.

Staff makes a distinction between Pacific Power's total wholesale margin (which may be negative) and the "additional" MWhs of sales and purchases not included in the GRID model which it says is positive. Staff states that the omitted wholesale sales and purchase error is systematic and occurs every year. According to Staff, Pacific Power always makes a positive margin on the GRID-omitted sales and purchases because of the diverse nature of its system and the resulting advantageous circumstances.

Staff characterizes as "diversionary" Pacific Power's claim that different levels of resources and planned maintenance between the GRID model and actual results cause a mismatch of costs and benefits. Staff claims that it demonstrated the independence of the margin adjustment from any extrinsic value considerations.

Staff states that Pacific Power's calculations are based on total actual short-term sales and purchase activity, while Staff's adjustment pertains only to the sales and purchases not captured by GRID. The omitted transactions are total actual, less what is included in GRID forecast and included in rates. There are three years of useful data (UE 134, UE 147 and UE 170 test years) where GRID was used to forecast power costs, and the actual results for the test period are known. That is the data that Staff used.

Staff states that the realization of the positive margins takes effort and skill on the part of Pacific Power, and the Commission may consider sharing the benefits with Pacific Power's shareholders as an incentive. Staff believes customers should reap most, if not all, the benefits of a system they paid for.

2. *Pacific Power Reply*

Pacific Power argues that Staff's margin adjustment lacks the basic evidentiary foundation necessary to prove even routine adjustments, and has multiple theoretical and policy problems:

- Other than a general description, Staff did not introduce any evidence of the calculation of the adjustment.

- The record includes alternate calculations for this adjustment that Staff proposed in three other Pacific Power cases. Application of the alternate calculations produces very different results.

- Staff never attempted to determine what percentage of the additional transactions was related to trading (where the concept of margin is applicable) and what percentage were related to system balancing (where the concept is not). The undisputed evidence shows that system balancing comprised 87 percent of Pacific Power's total short-term transactions.

- Staff never tested its theory by comparing power costs in rates to actual results. Over the last five years, Pacific Power's power costs in rates were understated by more than $60 million per year (average).

- Staff's margin adjustment is inconsistent with the Commission's recent rejection of the Staff's extrinsic value adjustment in UE 180 (PGE), where the Commission recognized that the inherent value of power supply systems should be captured by comprehensive modeling changes.

- Staff's margin adjustment is problematic regulatory policy, because it imputes an actual cost model into a normalized ratemaking paradigm. The problem is compounded by Staff's failure to compensate for differences in actual results in variables that impact volume and margin on short term wholesale transactions, such as new resources not included in rates, hydro generation, fuel costs, and thermal availability.

Pacific Power elaborates on each of these points.

Regarding whether the evidence supports Staff's calculation, Pacific Power argues that Staff relies on the calculation as its only evidence that the Company makes a positive margin on its wholesale transactions not covered in GRID – without ever introducing the margin adjustment calculation into evidence.

According to Pacific Power, the evidence demonstrates that the margin adjustment calculation is highly volatile. When applied to earlier cases, Pacific Power claims that the margin adjustment calculations produce much different results from Staff's adjustment in this case.

Pacific Power challenges Staff's claim that its margin adjustment would always be positive. Pacific Power states that it has experienced implied negative margins on its total wholesale transactions in the last three out of five years.

Pacific Power states that its alternative adjustment calculations are the only margin adjustment calculations now in the record, with results that could be averaged to support a rate increase instead of a rate decrease. Pacific Power does not support Staff's margin adjustment, whether it results in an increase or decrease. Staff's adjustment is "unreliable," and "lacks consistency and predictability."

Regarding whether the transactions tend to be system balancing or trading, Pacific Power states that system balancing transactions have made up over 87 percent of Pacific Power's short-term transactions, with arbitrage and trading transactions comprising the balance. System balancing is a dynamic process that involves continuous rebalancing. For any given position, the Company engages in multiple system balancing transactions, resulting in large volumes of such transactions relative to its load.

Regarding its alleged chronic underrecovery of its system power costs, Pacific Power states that current results, through May 2007, show that total company power costs in Oregon rates are understated by $65 million. Staff has never compared Pacific Power's net power costs in rates to its actual results during the adjustment period.

Pacific Power likens Staff's proposed adjustment to Staff's proposed "extrinsic value adjustment" in PGE's last general rate case, docket UE 180. In that case, "the Commission recognized that a better outcome was to work toward a new power cost model that more comprehensively captures the costs and benefits of stochastic volatility," and announced that it would open a new generic docket to review the issue.

Pacific Power argues that the Commission should apply the same approach in this case – rejecting Staff's adjustment in favor of a more comprehensive review of power cost modeling in the generic docket announced in UE 180. It is unreasonable to make a one-factor, ad-hoc adjustment to power costs to capture certain benefits when power costs already are systematically understated in rates.

Regarding the "ratemaking paradigm," Pacific Power argues that Staff's margin adjustment is essentially an historical true-up adjustment for prior unrelated periods for short-term wholesale transactions within a power cost model that otherwise is based on normalized forecasts. If Staff's adjustment were adopted, consistency would require adoption of similar true-ups for other costs.

Pacific Power illustrates its point with the example of new resources that are not yet included in rates. In 2006, neither Pacific Power's Currant Creek CCCT nor Leaning Juniper wind farm were in rates in Oregon, but both came on line in that year and produced 1.9 million MWh. Pacific Power argues that Staff's margin adjustment unfairly includes the volumes and revenues from wholesale transactions associated with these plants, without any offsets for their associated costs.

Pacific Power states that GRID does capture the value of the operation of its system by using available transmission for trading and by backing down generation. GRID calculates this value on a normalized basis, consistent with the treatment of other net power cost components.

Pacific Power states that an hourly deterministic production dispatch model like GRID will always underestimate the volume of short-term transactions, because it balances loads and resources and optimizes the system with perfect foresight. Staff's margin adjustment is based only on the assumption that, because the volume of Pacific Power's

omitted sales nearly matches the volume of its omitted purchases, the source of the omitted sales must be the omitted purchases.

Pacific Power says that assumption is false. The Company engages in an approximate equal number of sales and purchases to balance its system, and together these sales and purchases account for an average of 87 percent of Pacific Power's short-term transactions during the adjustment period. The source of virtually all sales omitted from GRID is Pacific Power's system resources, not omitted purchases. These sales and purchases are not linked or paired in a manner that produces a "profit margin."

Pacific Power compares the results of Staff's adjustment in this case to the results it calculated using Staff's methodology for prior cases and argues that "one would expect all versions of the margin adjustment calculation to produce generally consistent results in this case." Pacific Power cites their apparent inconsistency as "highly relevant evidence on the validity of the proposed adjustment."

Pacific Power reports that its actual, average margins on its trading ($0.8 million) are only 4.9 percent of the margin adjustment in this case. Staff's fatal flaw is that it does not attempt to distinguish between Pacific Power's "arbitrage and trading programs" from all sales and purchases not captured by the GRID.

3. *Staff Response*

Staff states that its margin adjustment is measured from three years of data, the only available years when there is data from both a GRID forecast for a year and the actual power operations results for that year. The results demonstrate a systematic and significant modeling problem: the actual MWhs of short-term sales and purchases exceed forecast by roughly 200 and 370 percent, respectively. Staff discredits Pacific Power's alternative calculations as irrelevant, because they use years for which both the GRID forecast and actual data are not available, or they use a different definition of margin.

Staff notes that Pacific Power relies on "system balancing" to explain why its power costs model grossly under forecasts actual volumes of wholesale transactions, but fails to demonstrate that positive margins cannot result from the dynamic process of system balancing.

According to Staff, positive margins are not only possible, they are systematic. A positive margin is produced on the wholesale transactions not captured by the GRID model because of the advantageous nature of the Company's diverse system. Staff calculates that Pacific Power's system balancing activity for 2006 yielded $25.6 million of positive margin allocated to Oregon.

Staff argues that Pacific Power's comparison of NVPC in rates and actual results is not relevant. Pacific Power's total actual power costs are impacted by many random factors, such as weather, hydro levels, market prices, natural gas costs, power plant forced outages and system load. The variation of these random variables can be addressed by

stochastic power cost modeling. Staff's margin adjustment addresses the systematic, non-random, positive margin produced by the ever-present, intrinsic advantageous characteristics of Pacific Power's power system.

Staff believes that Pacific Power and PGE are in different situations regarding the capability of their power systems to systematically produce positive margins on the wholesale transactions not captured by their respective power cost models. According to Staff, "Pacific Power makes a positive margin and PGE does not."

Staff disagrees that the margin adjustment is related to an extrinsic value adjustment. Different levels of resources and different levels of planned maintenance between the GRID filed and actual results do not affect the margin on wholesale transactions not included in GRID. All of the additional MWh of energy to make additional sales not included in GRID is provided by the additional MWh of purchases not included in GRID. Extrinsic value comes from undispatched flexible power resources, not from wholesale sales and purchases.

Staff disputes Pacific Power's claim that its adjustment is poor regulatory policy. Staff's margin adjustment is necessary to account for the systematic problem with the normalized regulatory paradigm.

4. *Discussion*

It is undisputed that GRID underestimates the volume of short-term wholesale transactions. As Pacific Power explains, an hourly deterministic production dispatch model like GRID will always underestimate the volume of short-term transactions, because it balances loads and resources and optimizes the system with perfect foresight.

Thus, we accept Staff's premise that the GRID model systematically understates the extent of Pacific Power's wholesale market activities. From that premise Staff infers that Pacific Power receives a systematic positive return on its net short-term wholesale transactions that are not included in the GRID runs. Staff attributes that return to Pacific Power's ability to leverage the flexibility of its diversified system.

We do not adopt Staff's adjustment. Staff's approach attributes all of the "excess"[1] volumes to Pacific Power's wholesale trading activities and derives a margin from the difference in the average prices of purchases and sales that is the basis for its adjustment. The record does not support Staff's treatment of all wholesale transactions as "trades."

The record shows that 87 percent of Pacific Power's short-term transactions are for balancing. Pacific Power buys or sells energy to balance load and supply. At any time, Pacific Power may be a net buyer or seller of energy to balance its system. There is no

[1] "Excess" refers to the recorded volumes of purchases and sales above the forecasted volumes in the GRID model.

evidence of a systematic tendency toward either role, or of any net margin on such transactions.

The remaining 13 percent of Pacific Power's short-term wholesale transactions are properly attributed to Pacific Power's arbitrage and wholesale trading activities. The Company calculated that the Oregon allocated margins on such activities averaged $0.8 million annually (from 2003 through 2006). There is no evidence that those results are included in the GRID model results. However, we conclude that such revenues are properly considered in the calculation of NVPC and the model results should be adjusted as necessary to incorporate those revenues.

We invite the parties to look more closely at the GRID model to examine whether there is a systematic bias in the way it treats short-term wholesale energy transactions, both for system balancing and for arbitrage and trading.

B. *ICNU*

1. *NVPC Baseline*

a. ICNU/Staff Position

ICNU argues that Pacific Power has inflated the rate increase by understating the amount of net variable power costs (NVPC) currently assumed in rates. ICNU contends that the amount of NVPC currently in rates is $225 million, not the $217.5 million assumed by Pacific Power. According to ICNU, the dispute over the amount of NVPC now in rates centers on the amount of NVPC the Commission authorized in Pacific Power's last general rate case (docket UE 179), determined by a stipulation between the parties. The relevant provisions of the Stipulation are attached as Appendix A.

ICNU claims that the amount of NVPC in rates approved in UE 170 was about $215 million. The UE 179 Stipulation then provided for an increase in the NVPC of $10 million. ICNU's calculation in this case is the simple sum of $215 million and $10 million.

Staff supports ICNU's proposed $7.5 million adjustment. According to Staff, when Pacific Power received the $10 million increase in NVPC in UE 179, it reflected an Oregon allocation based on the increase in total system NVPC from $796.5 million in UE 170 to $834.4 million in UE 179. However, this calculation did not reflect the $7.5 million decrease resulting from adjusting the Oregon allocation factor from 26.99 percent in UE 170 to 26.09 percent in UE 179. Thus, current Oregon rates include NVPC of $225 million (26.99 percent of $834.4 million)