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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of PACIFICORP for Approval of an IRP Based Avoided Cost Methodology for QF Projects Larger than 1 Megawatt	DOCKET NO. 03-035-14

PREFILED SURREBUTTAL TESTIMONY OF NEAL TOWNSEND

The UAE Intervention Group hereby submits the Prefiled Surrebuttal Testimony of Neal Townsend.

DATED this 19th day of September, 2005.

/s/ Gary A. Dodge,
Attorney for UAE Intervention Group

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by email this 19th day of September, 2005, to the following:

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PREFILED SURREBUTTAL TESTIMONY

Of

NEAL TOWNSEND

On behalf of UAE Intervention Group

In the Matter of the Application of PACIFICORP for Approval of an IRP Based Avoided Cost Methodology for QF Projects Larger than 1 Megawatt

Docket No. 03-035-14

September 19, 2005

Q. Please state your name and the party you represent for the record

A. My name is Neal Townsend. I am testifying on behalf of UAE.

Q. Have you previously filed testimony in this docket?

A. Yes, I prefiled direct testimony on July 29th, 2005.

Q. What is the purpose of your surrebuttal testimony?

A. In my surrebuttal testimony, I respond to several issues raised by other parties in their rebuttal testimony.

Q. Can you please summarize your testimony?

A. The issues I address are summarized below.

- Transmission upgrade costs associated with the resource used to develop the avoided capacity payments should be included in the capacity payment except where it can be demonstrated that, because of its location, a particular QF would not help avoid such costs.
- Capacity payments should be available for a QF that provides firm capacity prior to the on-line date of the avoided resource because such a QF allows the utility to avoid capacity costs.
- The analyses presented to date do not support the assertion that market constraints cause coal generation to be turned down in low load hours.
- A QF tolling arrangement for thermal-based QFs should be an option. Gas volatility risks for a QF resource can be addressed by the utility as part of its gas hedging strategy.
- Market-based energy pricing should be available during non-dispatch

hours for a firm QF with a tolling arrangement and for non-firm deliveries. Market basked pricing produces more accurate results that any modeling. Using 93% of either the Palo Verde index or Mona Index is a reasonable estimation of non-firm or non-dispatch energy.

Avoided Transmission Upgrade Costs

Q. Ms. Coon for the DPU and Mr. Hayet for the CCS resist your proposal to include transmission upgrade costs in the capacity payments for the avoided resource. Do you have any comments?

A. Yes. Ms. Coon suggests that the IRP resource is simply a proxy of the actual resource addition that will be determined in a competitive bid process and that the selected resource may or may not be a plant at PacifiCorp's Mona site. While that may be true in general, it does not mean that avoided transmission costs should not be included in calculating avoided costs. The same observation is true of the avoided generating station. Nevertheless, the approach used by all of the parties for determining avoided capacity costs is to assume avoidance of a CCCT unit at Mona. Thus, avoided transmission costs must be included in the calculation because the IRP avoided resource used to develop the proposed QF capacity payments and heat rate caps is a Mona sited resource. Since this Mona-based CCCT forms the basis of these calculations, it is appropriate to include avoided transmission upgrade costs identified in the IRP. Mr. Hayet agrees that transmission capacity (and transmission energy losses) should be included in an avoided cost analysis, but believes that the results should be identified in a

transmission impact study. While a transmission impact study will identify and require payment for any costs or impacts that a QF connection to PacifiCorp's system will cause, it will not identify transmission upgrade costs that can be avoided by avoiding the CCCT resource. To properly reflect full avoided costs for QF resources that will delay or avoid a Mona-based CCCT resource, the avoided transmission upgrade costs must be included in the capacity payment. The only exception is for a QF located in an area where it will not help avoid these transmission-related costs.

Capacity Payments Prior to 2009

Q. Mr. Hayet agrees that there is value to capacity prior to 2009 and accepted your proposal to spread the 2009 IRP CCCT capacity costs over the full 20 year period. Do you have any comments?

A. Yes. As I stated in my direct testimony, I agree with Mr. Hayet that a QF that provides firm capacity prior to 2009 will avoid capacity costs and should be paid capacity payments in those years. I suggested in my direct testimony that one way to determine the early year capacity payment was to use the costs of a simple cycle combustion turbine. However, I elected in that testimony simply to spread the capacity costs for a 2009 CCCT over 20 years beginning in 2006. My proposal to simply spread CCCT capacity costs over 20 years was made in the context of my companion proposals to use the heat rate of the avoided CCCT to establish energy pricing during QF dispatch hours under a tolling option and to pay a percentage of an electric market index price for energy in non-dispatch hours. My proposal did

not expressly add any additional capacity value for the years prior to 2009. Moreover, it did not address capacity payments for firm QF contracts of less than 20 years. UAE continues to support the proposal in my direct testimony to spread the 20-year values over 17 years for a 20 year contract, assuming a tolling option is available during dispatch hours based on the avoided CCT's heat rate and a gas index, and that non-dispatch hours are paid for based on a reasonable percentage of an electric index. However, PacifiCorp, DPU and CCS resist these proposals and have not proposed a means of recognizing avoided capacity costs in the early years. I thus propose that capacity costs for a simple cycle CT should be included in the avoided cost calculations in years prior to 2009.

Q. Why should the capacity costs for a simple cycle unit be used in years prior to 2009?

A. A simple cycle gas unit reflects the most economical and pure form of capacity. PacifiCorp's primary options for meeting its capacity deficits prior to 2009 are either to make market purchases, if available, or to construct a simple cycle unit. Although it is generally agreed and accepted that some element of capacity value is included in firm market prices, it is difficult to identify the precise capacity element. Moreover, some of the parties appear to resist using an electric market index approach. The most appropriate way to include these capacity costs is to reflect the costs of a simple cycle unit. Attached as UAE Exhibit 2SR.1 (TNT-1SR) is a spreadsheet showing the resulting capacity payments with the inclusion of the simple cycle capacity costs in years prior to 2009.

Q. What should the avoided capacity payments be prior to 2009 for a firm QF contract with a term of less than 20 years?

A. If my proposals for a tolling arrangement, index-based pricing for non-dispatch hours and spreading the capacity payments over 20 years are accepted, the capacity payments for a shorter term contract should be those reflected in the far right column of Table 1 in my Direct Testimony (and UAE Exhibit 2.1 (TNT-1)). Otherwise, the capacity payments should be those reflected in UAE Exhibit 2SR.1 (TNT-1SR).

Q. Ms. Coon also accepted your levelization proposal. Did she use the same rationale as Mr. Hayet?

A. It does not appear so. Her acceptance of my levelized capacity payment seems to be based on the need to aid QF financing. I assume that Ms. Coon will also acknowledge that there is some avoided capacity value prior to 2009, given that PacifiCorp projects the need for substantial new capacity in its IRP.

Off-Peak Market

Q. Ms. Coon provided operating data in DPU Exhibit 2.1R that she asserts demonstrates that PacifiCorp's coal plants are backed down during LLH because a market does not exist. Have you reviewed this data and analysis?

A. Yes. Ms. Coon states that the DPU relies on this information to demonstrate that coal plants are backed down during low load hours. She concludes, without providing any evidence, that the reduced coal generation is caused by limited markets. In her exhibit, Ms. Coon selected the first day of each month from

August 2004 through July 2005 to analyze the operation of "several coal plants located in the Utah bubble" because of the large amount of generation data. Because of the short time available to prepare surrebuttal, I limited my review of her analysis to the 2005 data that she used. I examined the data for each generating unit included in the DPU analysis. This data is reproduced in Confidential Exhibit UAE 2SR.2 (TNT-2SR). I find the data inconclusive, at best. First, it does not appear that Ms. Coon attempted to isolate or eliminate factors other than market conditions that may cause a unit to be backed down. The data reflected in Confidential UAE 2SR.2 (TNT-2SR) suggests that many of the units were not simply backed down because of market conditions during nighttime hours. Without attempting to isolate market conditions or eliminate other possible causes, I do not believe that any meaningful conclusion can be drawn from Ms. Coon's analysis.

Q. The Company prepared an analysis that it asserts supports the low load hour market caps used in the GRID model? Do you have any comments?

A. Yes. In response to CCS Data Request 8.19, PacifiCorp provided a spreadsheet that it maintains demonstrates the existence of illiquid markets during the graveyard hours. First, I would note that it is based on only a single year (April 1, 2003 to May 31, 2004) of the Company's "spot" or real time sales. Use of a single year's worth of data does not provide a sufficient basis to use over a 20 year GRID forecast. More importantly, as I noted, this is simply "spot" or real time transactions. It does not include any data for other trades entered into day ahead

or other transactions. This is the only information the Company provided to support its market caps assumptions. I am not persuaded that QF pricing should be based upon such a narrowly defined analysis. The Company should be able to enter into transactions for QF energy well ahead of the spot market.

Q. PacifiCorp's Mr. Duval asserts that Company owned coal plants generated 156 MW less during graveyard hours than during all other hours. Did you review his analysis?

A. No. Mr. Duval did not provide any data or analysis with his testimony so I have not yet been able to review it. However, if he also failed to remove other possible factors from his analysis, one could not reasonably draw any conclusions from his analysis either. Finally, in response to Mr. Duval's testimony that it is not reasonable to assume that non-firm transmission will be available in all hours, it is equally unreasonable to assume that non-firm transmission will never be available in any hours.

Q. Given the absence of satisfactory evidence to establish how much, if at all, market or transmission constraints will cause coal plants to be backed down at night as a result of QF purchases, what do you recommend to the Commission?

A. The Commission should utilize a proxy model to value energy rather than the GRID model, as proposed in my testimony. Alternatively, if the Commission elects to utilize GRID, non-firm energy or non-dispatch energy for a QF with a tolling arrangement sold during low load hours should be based on a reasonable

percentage of an available market index price with the CCCT cost cap. Except for the cap, this is the approach used in all QF contracts entered into since the stipulation was approved. It utilizes reasonable and accurate market-based prices that protect both ratepayers and QF developers. It has been approved as in the public interest on several occasions. Alternatively, the Commission should recognize that nonfirm transmission and market liquidity will in fact exist in many nighttime hours -- in contrast to GRID's assumptions to the contrary. Some value should thus be added back to the GRID prices to reflect reasonable assumptions about the percentage of low load hours when market opportunities will likely exist during hours when GRID backs down coal plants. That is the approach used by Mr. Swenson in his direct testimony, and it is a reasonable compromise if the Commission elects to use a DRR model.

Tolling Arrangement for Thermal QFs

Q. Ms. Coon rejected the QF model UAE presented in its direct testimony because it did not provide a fixed QF price or pricing for a different type of resource. Can you comment?

A. Yes. As I noted in my direct testimony, UAE strongly supports a QF tolling option. That was the main focus of my direct testimony. I was not focused in that testimony on developing a fixed price method, nor was I addressing other types of resources.

Q. In your opinion, does the fact you focused on developing a QF tolling option instead of a fixed price option or a method usable for other resource types

make your method unusable for thermal-based QF pricing?

A. No. Thermal-based fixed QF prices can be determined with the proxy model by either making reasonable assumptions regarding the dispatch of the QF resource and establishing electricity and gas forecasts or using a capped market-based price. Alternatively, different methods could be used for different types of resources.

Market-Based Pricing During Non-Dispatch or "Put" Hours

Q. Ms. Coon does not support continued use of the 93% of Palo Verde for pricing QF energy during non-dispatch or "put" hours. What is your response?

A. I selected 93% for valuing non-dispatch QF energy because it was used in the QF stipulation and as noted by Ms. Coon, was supported by evidence from PacifiCorp that 93% was a reasonable number. Ms. Coon referenced a five year analysis and claims that the non-firm to firm pricing was substantially lower than 93%. However, she failed to provide the study or disclose the results of her study. In addition, she did not support why the use of a 5 year period is more reasonable than the analysis performed by PacifiCorp. Further, she noted a recent amendment to an existing QF contract that is linked to market pricing at a lower percentage than 93%. However, once again, she failed to provide the percentage.

Q. Do you continue to support the 93% figure?

A. I strongly support the use of an actual market index for pricing non-dispatch hours and non-firm energy. Actual market indexes are more valid and accurate pricing

indicators than the output of complicated models not based on real data. Moreover, I continue to support 93% because it has been supported by evidence provided by PacifiCorp, it has been approved as in the public interest by the Commission and I have not seen any evidence supporting a different percentage. If it can be demonstrated that a different percentage better represents the non-firm market, however, UAE would support the use of an alternative number. Moreover, a lower percentage also could be used to address other concerns, such as claimed market illiquidity, if it can be demonstrated. Also, it should be remembered that, regardless of the percentage selected, UAE proposes to cap the energy price at the heat rate times the gas index price for the avoided resource.

Q. Does this conclude your surrebuttal testimony?

A. Yes it does.