– BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH –

IN THE MATTER OF THE APPLICATION OF PACIFICORP FOR AN ORDER APPROVING AVOIDED COST RATES	DOCKET NO. 03-035-14 DPU EXHIBIT 1.0R

REBUTTAL TESTIMONY OF

ARTIE POWELL

DIVISION OF PUBLIC UTILITIES

May 6, 2004

DOCKET 03-035-14

AVOID COST METHODOLOGY

REBUTTAL TESTIMONY

DIVISION OF PUBLIC UTILITIES

Q: Please state your name, business address, and current position.

A: My name is Artie Powell; my business address is 160 E 300 S Salt Lake City, Utah, 84114. I am a Technical Consultant with the Division of Public Utilities.

Q: On whose behalf are you testifying in these proceedings and did you file direct testimony in this proceeding?

A: I am testifying on behalf of the Division. I previously submitted direct testimony identified as DPU Exhibit 1.0 in this matter

Q: What is the purpose of your rebuttal testimony?

A: The purpose of my rebuttal testimony is to modify slightly the Division's position as specified my direct testimony.

Q: Please explain your modified position and any recommendations you may have.

A: In direct testimony the Division adopted the position that the best way to price QFs was to use a differential revenue requirement method and recommended that the Commission establish a task force to continue looking into the development of such a method. However, given the open dockets for Desert Power and US Magnesium, the Division recommended a method – what the Division referred to as the hybrid method in direct testimony – for pricing QFs which the Commission could use until the task force completes its work. After further reflection and multiple discussions among various parties in this case, the Division recommends several modifications to its original position and recommendations.

First, if the Commission determines that the differential revenue requirement method is the appropriate method to use to price QFs, the Division recommends that the Commission establish a timeline for the task force to complete its work. The Division recommends a date no later than the end of the current calendar year, possibly late November or early December. Second, the Division proposes modifying its hybrid method in four respects:

(a) The method would use a higher gas price forecast than was used in PacifiCorp's Schedule 37 filing (Docket 03-035-T10);

(b) Use a mix of coal and CCCT technologies in those years where a proxy plant is called for;

(c) Pay capacity payments over a period that more closely reflects PacifiCorp's actual capacity deficit or requirement; and

(d) Use the gas price forecast to establish a set schedule for the QF.

Q: Given these changes, would you please explain the hybrid method that the Division is proposing?

A: The hybrid method is a two-stage method. In the first stage, over the period when PacifiCorp is resource sufficient, the hybrid method would use the Grid model to establish the avoided costs, as is currently done for Schedule 37. However, instead of using a 10 MW resource, the Division recommends using a MW size that reflects the size of the QF.

For example, in the case of Desert Power, the hybrid method could use a 100 MW zero-cost resource.

In the second stage, when PacifiCorp is resource deficient, the avoided costs are calculated using a proxy plant method similar to the way PacifiCorp calculates avoided costs in these years for Schedule 37. Instead of relying solely on a CCCT as the proxy, however, the hybrid method would weight the CCCT and coal technology.

Q: How would the weighting of the coal and CCCT technologies work?

A: First, a schedule of prices or $/MWhs for a coal only proxy would be developed in the same way a schedule is established for the CCCT proxy in Schedule 37. Starting in the year that a coal plant is expected to come on line, this coal price schedule and the CCCT price schedule are combined as a weighted average. According to the PacifiCorp's 2003 IRP, a coal plant is comes on line in 2011. The Division recommends a 50% weighting for coal in this calculation.

Q: What is the purpose of weighting the coal and CCCT prices?

A: Including coal technology in the mix more closely reflects the reality of PacifiCorp's actual resource mix and, potentially, reflects more closely what a QF is likely to avoid. "In practice," according to a report by Tellus Institute, "avoided costs for a [QF] will come from avoiding the construction and/or operation of bits and pieces of a large number of different types of units spanning varying time periods." Tellus goes on to explain that, "The operating costs and characteristics associated with a single type of [QF] cannot typically represent those associated with the complex set of avoided power plants (and other plant operations) that actually result when an alternative resource is added to a utility system."[1]

Q: You mentioned using a higher gas price. What gas price forecast does the Division recommending using?

A: In responding to Schedule 37 (Docket No. 03-035-T10), the Committee of Consumer Services (CCS) proposed using a forecast based on a $0.70 differential between NYMEX and OPAL. PacifiCorp's estimated differential for these two gas hubs is substantially higher. Since both forecasts seem reasonable, the Division proposes using the average of the Committee and PacifiCorp's forecasts. This average forecast would be used to establish the fuel costs of the proxy plant and thus the avoided costs in the deficiency years.

Q: You mentioned changing the capacity payment to closely reflect PacifiCorp's actually deficiency period. What is the Division proposing with regard to capacity payments?

A: In response to the Committee's comments on Schedule 37, PacifiCorp increased the number of months in the deficiency when the QF is eligible for capacity payments from 3 months to 5 months. For purposes of the hybrid method, the Division agrees that using 5 months as the basis for capacity payments in the deficiency period is reasonable.

Q: Are there any other changes that the Division is recommending for purposes of the hybrid method?

A: In commenting on Schedule 37 (Docket No. 03-035-T10), the Division made changes to PacifiCorp's filed heat rates, payment factors, O&M costs, and a formula inconsistency. In

---

[1] "Costing Energy Resource Options: An Avoided Cost handbook for Electric Utilities," Tellus Institute, September 1995, pp. II-8& II-9.

responding to the Division's comments, PacifiCorp acknowledged and adopted these changes. The Division recommends that, for purposes of using the hybrid method to set avoided costs rates, these changes be included.

Q: What would the avoided costs for a QF be using the hybrid method?

A: Using the hybrid method with each of the modifications discussed herein would yield avoided costs in the range of $44.09 to $47.44 per MWh. These rates represent the 20-year levelized rates at 7.52%. The lower end, $44.09, is the avoided cost with a coal weighting of 50%.[2] The upper end of the range, $47.44, represents a coal weighting of 0%. The midpoint of this range is $45.76/MWh.

Q: How do these rates compare to Schedule 37?

A: Using the Division's filed changes and the modified gas forecast discussed herein, the 20-year levelized rate for Schedule 37 is $47.90/MWh. The upper end of the avoided costs from the hybrid method is slightly lower than the avoided costs for Schedule 37. This reflects the larger zero-costs resource – 100 MW versus 10 MW – used in the hybrid method: the larger QF dips farther into the resource stack and thus displaces lower cost resources.

[2] The avoided coal costs come form calculations performed by the Committee of Consumer Services in open discussions with the various parties in this case.

Table 1: 20 Year Levelized Prices @ 7.52%, 2004 - 2023

	Price $/MWh	Description
Hybrid Method		
	47.44	Modified Sch 37: 100 MW Zero Cost Resource; Division OM, Payment Factors, Heat Rates; Corrected Calculation Error, 5 Months of Capacity Payments (2004-2007); adjusted Gas Price: Average of Company and Committee (with $0.70 Differential)
	44.09	Combined Case: Modified Sch 37 for 2004 - 2010; Weighted Coal and Modified Sch 37 for 2011 - 2023, Coal Weight = .50
	45.76	Midpoint
Schedule 37		
	47.90	Schedule 37: **10 MW Zero Cost Resource**; Division OM, Payment Factors, Heat Rates; Corrected Calculation Error, 5 Months of Capacity Payments (2004-2007); adjusted Gas Price: Average of Company and Committee (with $0.70 Differential)

Q: Does the Division have any comments regarding the Green Tag issue as raised by Mark Tallman and responded to by Kelly Francone and Jeff Burks?

A: The Division believes that the Green Tag issue is an important issue, and could have a significant ratepayer impact as renewable resources become more common in the Western interconnection generally and the PacifiCorp system specifically. However, the Division has not carried out a thorough investigation of this matter and, therefore, cannot offer sound public policy recommendation to the Commission at this time. We therefore recommend that the Commission make no decision regarding the Green Tag issue at this time and instead allow the task force proposed herein by the Division to tackle this issue and to make a thorough investigation with the participation of PacifiCorp, regulators and all other interested parties. At the end of the investigation, the Division recommends that the task force file a report and recommendations with the Commission.

Q: Does the Division have a timeline in mind for this investigation into Green Tag issues?

A: Yes. Due to the fact the PacifiCorp's IRP has in the past and is currently analyzing renewable resources for company planning purposes, the Division feels that it is vital to finish this investigation as soon as possible. Again, the Division recommends a date no later than the end of the year.

Q: In direct testimony, PacifiCorp witness Mr. Bruce Griswold identifies six additional adjustments that potentially would be applied to large QF prices. Do you think these adjustments are reasonable?

A: In general, yes, the Division believes that the concept of the adjustments is reasonable. However, if the QF is able to operate in a manner similar to the operating characteristics embedded in the avoided costs most, if not all, of the adjustments would not be necessary. The exceptions may be green tags and accounting adjustment for debt (accounting) affects of QFs.

Q: Does that conclude your rebuttal testimony?

A: Yes it does.