

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE)	
APPLICATION OF PACIFICORP)	Docket No. 03-035-14
FOR AN ORDER APPROVING)	SURREBUTTAL TESTIMONY
AVOIDED COST RATES)	OF RICHARD COLLINS
)	

MAY 12, 2004

1 **Q. Will you please state your name, address and business association?**

2 A. My name is Richard Collins; I am an Associate Professor of Economics and
3 Finance at Westminster College located at 1840 South 1300 East, Salt Lake City,
4 UT 84108.

5 **Q. Are you the same Richard Collins that filed rebuttal testimony earlier in this**
6 **case?**

7 A. Yes.

8 **Q. What is the purpose of your surrebuttal testimony?**

9 A. The purpose of this testimony is to respond to the rebuttal testimony of other
10 parties in this case.

11 **Q. Could you respond to the rebuttal testimony of Dr. Weaver?**

12 A. Yes, Dr. Weaver states that the Company's goal in this docket is to help the
13 Commission establish an avoided cost pricing mechanism to provide large QFs
14 with price offers that are just and reasonable to the Company's customers, the QF
15 and the Company. He recommends that the method must take account of the
16 specific characteristics of the specific large QF. "It is those peculiarities that
17 determine the cost the Company would have to incur but for the power provided
18 by the large QF. This is the appropriate basis upon which to determine avoided
19 cost-based prices for the QF power and meet PURPA's ratepayer indifference
20 standard."

21 **Q. Do you agree with this proposition?**

22 A. I agree with the first statement, but not the last. I agree with the statement an
23 avoided cost pricing mechanism should offer prices that are just and reasonable to

1 all parties. I disagree with the inference of the statement that it is the
2 particularities of the QF that determine the cost the Company would have incurred
3 but for the power of the QF. This implies that only the QF's characteristics are
4 relevant. In reality it is both the characteristics of the QF and the characteristics
5 of the resources that are avoided that are relevant. The issue is what costs are
6 actually avoided as a result of purchasing from a QF and what is the best method
7 of determining that value.

8 **Q. Isn't this just semantics? What is the difference?**

9 A. No it is not semantics; this is an important point. The issue comes up repeatedly
10 in the Company's calculation of avoided costs rates. The Company makes a valid
11 point that the characteristics of the QF must be analyzed in order to determine
12 what resources can be avoided, but the characteristics of the resources that are
13 avoided must also be analyzed in order to determine what costs are actually
14 avoided. This is something that the Company does not do on a consistent basis.

15 **Q. Can you give a few examples?**

16 A. There are numerous examples, and they are not confined to Dr. Weaver's
17 testimony. For example Mr. Griswold makes a series of adjustments that lead to
18 lowering the rates paid to QFs, but he does not account for the benefits that a QF
19 may provide such as avoided transmission and distribution costs if the QF is
20 located near the Company's load centers.

21 **Q. Are there other examples?**

1 A. Yes, Another example comes from Exhibit BWG-2R, the Company appears to
2 assume an increase in forced outage rates for the QF every year, but it does not
3 appear to make the same adjustment to its own proxy unit.

4 **Q. On page 6 lines 12 -24 and on page 7 lines 1-4 Dr. Weaver reiterates his**
5 **justification for capitalizing energy costs. Does he make a more convincing**
6 **case?**

7 A. No, the most valid point Dr. Weaver makes in his response is that the capital costs
8 of a QF are irrelevant in determining avoided costs. However, his insistence on
9 using a SCCT, the lowest initial cost resource capable of meeting capacity
10 requirements, as the appropriate measure of calculating the value of avoided
11 capacity in my opinion does not have strong theoretical merit. A coal plant
12 provides capacity as does a SCCT or a CCCT. The generation system is designed
13 to best meet the system's load requirements for both capacity and energy. Further
14 this rationale is not used in the determination of rates. The Company certainly
15 would not want to structure its demand and energy rates based on this logic. Nor
16 is this convention used in other aspects of ratemaking. For example,
17 interjurisdictional allocation is assigned on a 75% demand and 25% energy basis,
18 more in line with costs associated with a coal plant than a SCCT.

19 **Q. Can you address Dr. Weaver's response to the Committee's recommendation**
20 **that the Commission consider tying the avoided energy price to a fluctuating**
21 **gas price index?**

22 A. Yes, we agree with his testimony that this recommendation should be adopted as
23 an option. We believe that both a fixed energy rate and a fluctuating rate should

1 be offered. However, we believe that the choice of the option should be given to
2 the QF not the Company. It is the QF not the Company that is best “able to tailor
3 their payment stream to serve their needs”.¹ The important issue is to maintain
4 ratepayer indifference. UAE maintains that an energy rate that reflects real time
5 fuel prices is a better vehicle to meet this criterion.

6 **Response to Mr. Tallman’s rebuttal Testimony**

7 **Q. Mr. Tallman on page 5 of his rebuttal testimony argues that the indifference**
8 **standard will not be met if a QF has the right to name an alternative source**
9 **of electricity. Do you agree with his argument?**

10 A. No. I do not agree. Mr. Swenson requests that a QF be allowed to find an
11 alternative supply of energy for the utility to meet the QF’s contractual obligation
12 to provide power. I do not find this request unreasonable, but the QF must do so
13 in a manner that leaves the ratepayer indifferent. The key question is will this
14 option lead to higher rates? The ratepayer doesn’t care if the electricity comes
15 from the QF or an alternative provider, in the case that the QF has an outage, just
16 as long as QF rates do not rise. If the option can be structured to meet this
17 criterion then it should be allowed.

18 **Q. On page 6 line 15, Mr. Tallman states that the Company believes that market**
19 **prices contain a capacity element. Do you agree?**

20 A. I believe that market prices may contain a capacity element or not. They may also
21 contain a capacity element and yet reflect additional factors. Market prices for
22 electricity will depend on supply and demand conditions that are prevalent at the

¹ Weaver Rebuttal Testimony p. 11 lines 6-7.

1 time. If, for example, there is a surplus of generation on the market, market prices
2 may not contain a capacity element or it may be minimal, price just has to be
3 greater than variable costs. On the other hand, if there is high demand and low
4 supply, market price will be very high and reflect a capacity element and other
5 demand factors. I believe that if the market is in long-run equilibrium, market
6 prices should provide a fairly accurate measure of the value of capacity once
7 energy costs are backed out.

8 **Q. Isn't the market usually in long-run equilibrium?**

9 A. No, to paraphrase John Maynard Keynes, "the market reaches equilibrium in the
10 long run, but in the long run we are all dead". Market prices are not an accurate
11 measure of the value of capacity.

12 **Response to Witness Williams**

13 **Q. Mr. Williams argues that a QF contract will cause the Company to bear an**
14 **added cost as a result of the possible debt imputation of the power purchase**
15 **agreement. He argues that this cost is known and measurable. Can you**
16 **comment on this assertion?**

17 A. Yes. He does not explain how one would measure such a cost. It may be known
18 but accurately measuring this cost is another story. In addition, he does not make
19 a case that the cost is avoidable. As support for his position, he quotes a Florida
20 Public Service Commission order that concluded that

21 "(b)uying power increases the utility's fixed charges, which, in turn, can
22 reduce financial flexibility. *Standard & Poor's (S&P) notes that,*
23 *'regardless of whether a utility buys or builds, adding capacity means*

1 *incurring risk*'. In including this equity adjustment FPLK is reflecting the
2 cost, in the form of less financial flexibility that is imposed on electric
3 utilities with purchased power contracts.”

4 I believe this conclusion is in error. It is another case of treating the QF
5 differently than the utility. The support for my position is contained right in the
6 FPSC's quote of S&P, '*regardless of whether a utility buys or builds, adding*
7 *capacity means incurring risk*'. If the utility builds, the utility incurs debt which
8 will require that equity be issued. If the incurrence of risk is the same, one can
9 conclude that it is a cost that the utility cannot avoid thus it should not be
10 considered when determining avoided cost rates.

11 **Response to Dr. Powell's Rebuttal Testimony**

12 **Q. Dr. Powell reiterates his recommendation that the Commission establish a**
13 **task force to continue looking into developing a differential revenue**
14 **requirement method if it finds that this method is the appropriate method to**
15 **use to price QFs. Do you agree with this recommendation?**

16 A. Yes and no. I agree that a task force should be established, but I disagree that it
17 should be ordered to only consider the differential revenue requirement method.
18 There are fundamental problems with this method that will disadvantage QFs.
19 The Commission should order the task force to develop both a blended proxy
20 method and Dr. Powell's preferred method. The strengths and weakness of both
21 should be detailed and the Commission should ultimately decide which is in the
22 public interest.

1 **Q. Dr. Powell makes a recommendation to set QFs prices at \$45.76/MWh do you**
2 **agree with this number or the method used to calculate it?**

3 A. No, I do not. To derive this number, Dr. Powell uses a variety of compromises on
4 assumptions and methods to reach his conclusion. I find fault with a number of
5 his assumptions. For instance, he uses 5 months of SCCT cost in the sufficiency
6 period, my testimony shows that 12 months should be used. Dr. Powell uses an
7 average of the Company's forecasted gas prices with the Committee's forecast
8 with a \$0.70 differential; UAE's testimony indicates that a differential of \$0.60
9 should be used. Dr. Powell reaches his final number by taking the midpoint of a
10 'CCCT only' calculation and a '50% CCCT and 50% Coal' calculation. I do not
11 believe that this should be considered as a viable range. If one looks at the
12 Company's IRP or updated IRP there is not a 50-50 split between coal and gas for
13 planned new resources. Gas-fired generation has a much higher percentage.
14 Secondly given the lower operating cost of a coal plant it is much less likely than
15 gas resources to have its energy displaced by QF generation. Thus this scenario is
16 unlikely at best and should not be included in a range of estimates to consider.

17 **Q. Has UAE a recommended rate for consideration?**

18 A. Yes, we do. See attached exhibit RC 1SR. Based on our recommended changes
19 to the Company's method the avoided cost price is -\$54.78/MWh on a levelized
20 twenty year contract basis. This includes changes to the method of calculating
21 avoided costs that are contained in UAE's testimony.

22 **Q:** Could you explain those changes?

1 A. I will briefly review them here. We use the Company's basic method that
2 includes a sufficiency and deficiency period. During the sufficiency period we
3 use the SCCT costs paid for 12 months for determining capacity payments which
4 includes avoided transmission costs. For energy, we use the Committee's gas
5 forecast with a basis differential described below. The short run energy costs are
6 the heat rate for a SCCT times the our calculated gas costs in high load hours and
7 the heat rate time the forward price curve for Palo Verde as an estimate of gas
8 costs in the low load hours. Actual payments will be based on the actual Palo
9 Verde index. A weighted average is then calculated based on the number of high
10 and low load hours.

11 For the deficiency period we use a CCCT for determining capacity costs
12 and the combined heat rate of a CCCT and duct firing times the our gas index for
13 the energy rate.

14 Q. Could you explain the rationale for your determination of the basis differential?

15 A. Yes, it is a little complicated, but I will try. It is UEA contention that the basis
16 differential between Henry's Hub and Opal is determined by the Rockies region's
17 export capability. Based on an historic average, back to 1992, the differential is
18 \$0.61. After the Kern River's expansion, an increase of 23%, the basis
19 differential dropped by 41.4%. The basis differential went from -21.45% of the
20 NYMEX price to -12.56%. Using this information, we calculate an elasticity
21 coefficient that measures the responsiveness of the differential to changes in
22 export capability. Next, we determine what future expansion will be in
23 percentage terms for 2006 use the elasticity coefficient to determine how much

1 the basis differential will decrease. By our calculation it will decrease from -
2 12.56% to -9.2%. Further expansion will continue to lower that basis differential.
3 However, as an extremely conservative estimate I use the -9.2% as my basis
4 differential.

5 Q. This rate is higher than the rates presented by some parties in this case. Is this a
6 problem?

7 A. No. The Commission should decide this case based on the best method and the
8 best inputs available. I believe that UAE has presented testimony that supports
9 this rate. I would also remind the Commission that this is perhaps is the highest
10 rate a QF is likely to receive. Remember there are a series of adjustments that
11 will generally lower the actual price a QF will actually receive.

12 Q. Does this conclude your surrebuttal testimony?

13 a. Yes it does.