
BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION
OF PACIFICORP FOR THE APPROVAL
OF AN IRP BASED AVOIDED COST
METHODOLOGY FOR QF PROJECTS
LARGER THAN 1 MW

Docket No. 03-035-14

PREFILED ORDER CLARIFICATION TESTIMONY OF ROGER J. SWENSON

Pioneer Ridge, LLC hereby submits the prefiled Testimony of Roger J. Swenson in this Docket.

Dated this 10th day of February 2006.

Roger J. Swenson
Vice President Regulatory Affairs, Pioneer Ridge, LLC

PREFILED ORDER CLARIFICATION TESTIMONY

Of

ROGER J. SWENSON

On behalf of Pioneer Ridge LLC

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

February 10, 2005

1

2 **Q. Please state your name and business address.**

3 A. Roger J. Swenson, 1592 East 3350 South, Salt Lake City, Utah 84106.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am an independent utility and energy consultant and Vice President of
6 Regulatory Affairs for Pioneer Ridge LLC.

7 **Q. Have you filed testimony in this docket on previous occasions?**

8 A. Yes.

9 **Q. What issues remain that need further clarification in this matter that you are**
10 **filing testimony on at this time?**

11 A. There seems to be some question that has come up directly in the final aspects of
12 determining the price to be paid to Pioneer for power production from its wind
13 site. The questions are based the adjustments to power price based on the power
14 production profile between the proxy plant and Pioneer Ridge LLC.

15 **Q. Why did you propose the methodology for making the adjustments that you**
16 **did?**

17 A. I prefer to have a clear basis for what we are doing that is transparent and does not
18 take a model that takes many hours to run and perhaps weeks to get an answer
19 from depending on the schedule of the few persons that can make the model
20 operate. I also expect that the methodology I proposed should give the same
21 answer as the more complex and less transparent DRR approach that was
22 proposed by the Company.

23 **Q. Doesn't the Order of Clarification that came out provide guidance on how**

1 **that will be accomplished using the Pioneer proposed methodology?**

2 A. The methodology that Pioneer proposed used an on peak and off peak basis of QF
3 pricing to determine a value of the differences in operating profile between the
4 proxy wind project and the wind QF project. What is required is that a
5 determination of the most appropriate off peak avoided cost of production be used
6 to make the mathematical adjustments to take the differences in operating profiles
7 into account. Once an off peak power value is derived then the on peak prices can
8 be calculated to reach the proxy contract price. The Pioneer suggestion is to use
9 the off peak power price as determined from a project the same size as the proxy
10 wind plant that operates on a flat basis only during the off peak hours using the
11 DRR method as provided by the order in this case. I would also propose to
12 modify the approach I provide as an illustration in my testimony to become more
13 accurate by using more than 2 periods per day to make pricing adjustments.

14 **Q. What is the basis for using the DRR derived off peak price?**

15 A. The price should be based on the prices derived from a flat operation of off peak
16 hours using the now approved methodology, the modified DRR method. We
17 should use this approach because it was clear in the order that one of the issues
18 that was determined was the fact that avoided costs in off peak hours is heavily
19 weighted by coal plant power production prices as coal plants are required to be
20 turned down. The illustrative example that was used in my supplemental
21 testimony used off peak prices that were roughly 70% of the on peak price. It was
22 based on prices derive from early in 2005 that are clearly not appropriate now and
23 need to be updated. The prices had off peak pricing in excess of \$38/MWH in

1 one year for an off peak price. That would clearly not give the price signal to
2 wind developers that using the coal plant back down price of \$10-\$12/MWH in
3 the QF rate determination would. Using the DRR derived off peak price simply
4 carries on that aspect of the order. I also have no other basis to use any other
5 derived number at this time. The Commission would need to provide some
6 guidance if there is a more appropriate off peak price determination than the DRR
7 method to use. At this time I have asked Pacificorp for a determination of off
8 peak pricing using the DRR approach and I am awaiting their response.

9 **Q. What will occur with the Pioneer methodology, using the lower off peak**
10 **pricing, if a QF wind project has more power production in the off peak**
11 **hours relative to the proxy wind plant?**

12 A. The wind QF project price would be lowered relative to the proxy wind facility
13 reflecting the increased production in the lower value periods.

14 **Q. What will occur with the Pioneer methodology, using the lower off peak**
15 **price, if a QF wind project has less power production in the off peak hours**
16 **relative to the proxy wind plant?**

17 A. The wind QF project price would be raised relative to the proxy wind facility
18 reflecting the reduced production in the lower value periods.

19 **Q. Do you believe this is what should occur?**

20 A. Yes, the methodology should send the economic signals to encourage the projects
21 that provide the most value to the system. A project that generates in the highest
22 value periods should see higher prices. A project that has more generation in the
23 lower value periods should see a lower price from the adjustments.

1 **Q. Are there other issues that should be addressed by the Commission**
2 **concerning your approach?**

3 A. Yes. The approach I suggested used on two distinct periods to consider when
4 making adjustments, on peak production 7AM –11PM and off peak periods
5 11PM-7AM. I believe that we can improve this methodology by simply
6 considering more periods within the day.

7 **Q. Why would adding more periods improve the results?**

8 A. Let me provide an example. If there were two QF wind projects and both projects
9 had the same profile in off peak hours and in the 16 hour on peak period they had
10 very different operating profiles. Assume that one QF project had a power
11 production profile that produced power for 8 hrs only between 11:00 AM and 7:00
12 PM. The other QF project produced power from 7:00 AM to 11:00 and then from
13 7:00 PM to 11:00PM again 8 hours. Assuming the 2 QF projects produced power
14 for the 8 hours during the on peak period that they operate at exactly the same
15 level. Under this example if we only use the 2 periods, an on peak and off peak
16 period then the 2 projects would receive the same adjustments and be paid exactly
17 the same. Even though the project that produces during higher value 11:00 AM to
18 7:00 PM period should receive a higher price. Moving to a higher number of
19 hourly periods sends a more correct pricing adjustment.

20 **Q. How many periods should we use?**

21 A. The number of periods that data showing the proxy plant operating profile
22 provided by PacifiCorp in the response to Wasatch data request 1.2 was 6 per day.
23 PacifiCorp provided the average operating profile in four-hour blocks so there

1 were 6 each day. I believe we have the data to make this adjustment into 6
2 periods so we should use the information to create a better adjustment approach
3 again using the same basis I used in the surrebuttal testimony.

4 **Q. How would you make the adjustments using the 6 four-hour periods each**
5 **day?**

6 A. In exactly the same way that the adjustment was proposed previously. We would
7 first convert the proxy contract into a price for each of the 6 periods such that at
8 its projected operating profile by month it would receive the contract price by
9 year. Then using those hourly prices and the projected QF operating profile the
10 total revenue that the wind QF would receive would be calculated and converted
11 into a price per MWH.

12 **Q. Is this difficult to convert the yearly proxy price into a price for each of the**
13 **six periods?**

14 A. It is relatively easy given the contract pricing scalars that have been developed by
15 PacifiCorp and used in the Desert Power contract and the US Magnesium LLC
16 contract. These factors give a percentage price for each of the relevant hour and
17 can be combined to provide the percentage of price for the 4-hour blocks using the
18 proxy operating profile by month for the entire year. When an off peak price is
19 provided as discussed above then the value for the on peak period and the
20 breakdown into the 4 four-hour on peak blocks can be determined. I expect that
21 we will file a full basis for this determination with the contract approval for
22 Pioneer once finalized. I would like to provide it along with the DRR method that
23 has been worked up by the Company for comparison sake.

1 **Q. Why not use more periods rather than six for adjusting the pricing?**

2 A. I have no further information to derive the adjustment. I also believe that if what
3 we were provided in Wasatch DR 1.2 is the only information available to
4 Pacificorp for the proxy wind plant operating profile we could not gain any
5 additional accuracy by breaking the periods down further. We should make the
6 comparison in the future to adjustment methods that use more periods (including
7 the wind adjustment DRR approach proposed by Pacificorp) and look at the
8 results to determine if further refinement is warranted. From my understanding
9 and experience so far the revised Pioneer approach and the DRR method to adjust
10 wind profiles may give very similar results.

11 **Q. Will determining the wind contract pricing adjustment in the way you
12 suggest lead to a lot of work each time a wind project wants to find out what
13 price it will receive?**

14 A. No. Once the proxy contract price has been broken down into the 6 four-hour
15 prices for each year it is relatively easy to calculate the new wind QF price based
16 on the new wind QF project projected hourly profile. It is a process that could
17 take a few minutes, not hours or days.

18 **Q. Would the base contract price need to be recalculated often?**

19 A. Only when there is a new proxy wind resource or there is a change to the off peak
20 QF power price. I expect that with the approved DRR methodology the off peak
21 power price should remain very constant but even that could be calculated on an
22 annual basis or whenever there is a change to the wind proxy resource.

23 **Q. What are you asking the Commission to do here?**

1 A. I believe that the methodology to make adjustments to wind pricing using the 6
2 four-hour period approach is an improvement over the 2 period, on peak off peak
3 method suggested in my earlier testimony. The Commission's order stated that the
4 Pioneer method as proposed is a starting point. What I would ask at this time is to
5 let Parties continue to work on the approach that they bring to the Commission for
6 approval in the contract approval process if they feel that it is warranted. But I
7 would suggest that we should start with the most reasoned approach first that does
8 not begin with a method that may have flaws from the beginning. I believe that is
9 what the Commission meant when it suggested that we have a starting point and
10 not a final method to only consider. We should begin with the process that
11 provides the best reasoned results to begin with, and if need be continue to
12 improve the process. Using the updated DRR off peak price and moving to 6
13 four-hour periods does this.

14 **Q. Do you have any comments concerning the calculation of avoided line losses?**

15 A. Yes, the calculation of line losses for wind projects should be based on the same
16 methodology as has been used in the past for Desert Power and US Magnesium.
17 The method should compare the losses to load from the proxy location to where it
18 is consumed to the QF location to where that electrical energy will be consumed.
19 The suggestion that intermittent or non-firm resources do not affect line losses
20 either positively or negatively is incorrect. Just because there are contract terms
21 that say that a delivery is not firm does not controvert the laws of physics. When
22 electric energy flows in a conductor there will be losses associated with that flow
23 of electrical energy. Pacificorp's own OATT tariff provides a clear example of all

1 power transmission being subject to line loss charges irrespective of whether the
2 transmission of electrical energy is on a firm or non-firm basis.

3 **Q. Does this conclude your testimony?**

4 **A.** Yes it does.

