Q. Please state your name, business address and position with PacifiCorp dba Rocky Mountain Power (the Company).

A. My name is Bruce W. Griswold. My business address is 825 N. E. Multnomah, Suite 600, Portland, Oregon 97232. I am a Manager in the Origination section of the Company's Commercial and Trading Department.

QUALIFICATIONS

Q. Please briefly describe your education and business experience.

A. I have a B.S. and M.S. degree in Agricultural Engineering from Montana State and Oregon State, respectively. I have been employed with PacifiCorp over twenty years in various positions of responsibility in retail energy services, engineering, marketing and wholesale energy services. I have also worked in private industry and with an environmental firm as a project engineer. I currently have responsibility for qualifying facility policy and oversight within PacifiCorp Energy.

Q. Have you previously appeared in any regulatory proceedings?

A. Yes. I have appeared in other proceedings in Utah.

PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. I will be responding to Mr. Swenson's direct testimony in this Docket and also propose PacifiCorp's method for wind profile adjustment to the avoided cost for intermittent QF wind resources.

WIND QF PRICE ADJUSTMENT

Q. What is the Company's position on the determination of wind profile adjustment to the avoided cost prices for the intermittent wind QF?

A. The Company sees this as a contract specific issue, as stated by the Commission in their Order and Order on Reconsideration and Clarification in Docket 03-035-14. In other words, the avoided cost to be paid to the QF is set based on the Company's most recently executed, competitively procured wind resource and the Company and the QF would agree to the adjustment of the specific QF's wind profile to the market proxy avoided cost during the contract negotiation. The Commission stated two other key points. One, the DRR methodology through GRID should not be used to determine the wind profile adjustment to the market proxy avoided cost and two, Mr. Swenson's Surrebuttal Exhibit "Pioneer Ridge SR 2.XLS" should be the starting point for wind profile adjustment on a contract-by-contract basis. Once the Order of Reconsideration and Consideration was issued in February 2006, the Company complied with the Commission's approach and resubmitted indicative avoided costs to the two wind QF projects requesting pricing.

Q. Why is there a dispute on the pricing adjustment method?

A. It is simple. Pioneer Ridge continues to argue that the appropriate wind profile adjustment method is to use the DRR methodology even after the Commission has clarified its Order that the Company's DRR methodology using GRID is not the appropriate method to use for avoided cost pricing for wind QF projects.

Q. Can you summarize Mr. Swenson's position?

A. Yes, Mr. Swenson in his direct testimony has submitted that Pioneer Ridge's position that the DRR methodology via GRID should be used for wind profile adjustment but only for a very small portion of the pricing adjustment. He seeks to use the DRR methodology for the determination of only the off-peak pricing value and then algebraically calculate the offsetting on-peak price that averages to the flat proxy price. It does not take a mathematician to see what he is attempting – find the lowest off-peak prices by pointing to coal and then calculate extremely high off-setting on-peak prices that must equal back to the annual proxy price. Since Pioneer's project has a higher on-peak profile than the proxy, Pioneer Ridge benefits to the detriment of other wind QFs who may have a worse profile than the proxy. He points to it as a great incentive for the wind QF but as a resource with no control over the timing of its motive force, what is the incentive? And what happens to the other wind projects that have worse wind profiles? They are disadvantaged to the benefit of a single wind QF, Pioneer Ridge. This seems to me to be a detriment and not an incentive to future wind development in the state of Utah.

Q. What has been the wind developer's position on using market pricing for avoided costs for wind QF projects in Docket 03-035-14?

A. It is clear that the wind developers throughout Docket 03-035-14 believed that the market is the best proxy for avoided costs for wind projects. Mr. Swenson in his rebuttal testimony on page 1 line 14-18 states,

> "I believe that the only non-subjective actual evidence that the Commission has in order to make a determination over what the avoided cost should be for wind QF projects, is the last non-QF wind contract enter into by PacifiCorp. This market benchmark methodology is indisputable and provides a means to give the wind QF developer a true market signal."

Later, Mr. Collins in his surrebuttal testimony in Docket 03-035-14, states in his summary,

> "For wind resources, I recommend against the adoption of the Company's variant of the DRR method using its GRID model and recommend a robust compromise of methods. I recommend the average of the market-based method (the last contract signed and financed) and what I call the Company-build option cost model."

The most recent signed wind contract through the Company's competitive bidding process was compared against market options and deemed by the Company to be the lowest cost wind resource to add to its resource portfolio.

Q. Should the wind profile adjustment be market based?

A. Yes. First, let's consider the Commission's Order. It clearly states on page 13-14,

> "Neither did we approve use of the GRID model for wind profile adjustment. Pioneer Ridge's testimony on adjustments is a reasonable starting point for wind profile adjustments to produce indicative pricing for QFs up to the IRP target of wind resource procurement."

Therefore the GRID model should not be used by the Company to make the wind profile adjustment to the base proxy price. Next, let's consider Pioneer's testimony as the starting point for the wind adjustment methodology. Mr. Swenson makes two points. He suggests on page 1 that if the DRR model can be

developed for system avoided cost then a model can be developed to make specific wind adjustments to the market proxy price. It is important to note that he suggests a separate and distinct model other than the DRR model. He then goes on in his surrebuttal testimony in Docket 03-035-14, on page 1, lines 20 – 23 and page 2, lines 1-8, to state,

> "The market reference contract pricing should first be converted into an off peak and on peak price if it is just based on a flat price. To convert the flat price into an on peak and off peak price we can use the expected MWH of production in the on peak and off peak period of the market based contract site. With some algebra we can create the on peak and off peak price that will provide the total expected cost for the MWHs that would be produced by the project. Using the on peak and off peak pricing from the market contract as determine we can then use those prices directly in the QF contract. If the QF contract has more generation in the on peak hours than the market contract the effective value will be increased for the QF contract. If the QF has more generation in the off peak hours than the market contract it will receive less value than the market contract."

In that single paragraph, Mr. Swenson uses the word "market" six times, all related to the pricing and pricing adjustment in the proxy contract. It seems clear to me that he is pointing to market for pricing and pricing adjustments. And his methodology as a starting point is sound. That part of the methodology we accept. Fundamentally then since the proxy contract, as he states, is a market based contract then the wind profile adjustment should be based on the on-peak and off-peak market prices at the time the proxy contract was evaluated. Mr. Swenson goes on to use a simple example in his surrebuttal on how to apply the methodology. If you go to his exhibit in his surrebuttal, "Pioneer Ridge Exhibit SR 2.XLS", you will see that he used Schedule 37 avoided cost pricing to develop the on-peak and off-peak ratios as an example of his methodology. This is a simple example from a known and available reference to show how the

methodology would work. And lastly, as I pointed out earlier, the proxy was the lowest bid in a competitive bidding process. It was not compared to the Company's lowest system cost resource or the highest. It was compared to market.

Q. What market prices would the Company use to develop an on-peak and off-peak ratio?

A. The Company would use the official Company Forward Price Curve (FPC) that was in place at the time that the proxy contract was evaluated. That FPC was March 2005 for the current proxy contract.

Q. How does the Company propose to make wind profile adjustments to the proxy contract price?

A. We believe there is an easy method for making a wind profile adjustment that would be consistent with the Commission's Order in 03-035-14, follow through on using Mr. Swenson's methodology as the starting point for developing Pioneer's specific prices in their QF contract, and more importantly be available to all wind QF projects in Utah on a non-prejudicial basis. We agree with Mr. Swenson and the other parties in Docket 03-035-14 that the adjustment method should be simple and transparent, and frankly, Mr. Swenson's exhibit is a good starting point in spite of his retraction on its appropriateness in his direct testimony in this Docket. One can start at this point with the proxy market price and apply the Company's logical and simple market-based method. The

Company method is as follows which closely replicates Mr. Swenson's approach outlined in his surrebuttal as I referenced earlier:

1. Determine the ratios of the on-peak to off-peak prices at the appropriate market index by month. This is similar to what Mr. Swenson did however he used the ratio of Utah Schedule 37 on-peak price (which includes the capacity component) to the off-peak or energy only price. The small standard QF prices are not reflective of the proxy contract. It is much more appropriate to use the Company's official FPC that was in place at the time of the proxy's contract evaluation and execution. It shows a clear ratio of the on-peak to off-peak prices, it is used by the Company in its other resource decisions, and would be available to all QF projects for verification. In the case of the current proxy, this would be the March 2005 FPC and the appropriate market index for Utah is Palo Verde.
2. Convert the proxy annual price for 2006 into an on-peak and off-peak monthly price using the on-peak/off-peak ratios from the FPC. These monthly ratios are then multiplied times the annual proxy price for the year 2006. The results are monthly on-peak/off-peak prices for a single year – 2006.
3. Adjust the monthly on-peak and off-peak prices by the wind profile of the proxy. This step adjusts the standard on-peak/off-peak ratios determined from the PV data to reflect the wind profile of the proxy. The hourly wind profile data provided by the proxy is consolidated into monthly

standard on-peak (6X16) and off-peak periods and the ratio of the on-peak to off-peak production volumes are then applied to the monthly prices. The result is a series of monthly on-peak and off-peak prices that reflect both the market on-peak and off-peak ratio as well as the influence of the specific proxy's wind profile for the year 2006.

4. Calculate the yearly escalation of the proxy contract. This step links the prices changes each year in the proxy contract. The annual percentage increase or decrease is then applied each year to the individual monthly prices.

The proxy contract including its wind profile is considered confidential and should be treated as such. The Company's wind adjustment calculation is provided in Exhibit RMP BWG-1R.

Q. Does this market based method provide a mechanism to reflect the individual QF's wind profile?

A. Yes. As Mr. Swenson noted in his surrebuttal, the method needs to accommodate the specific QF's wind characteristics. In our methodology, with an on-peak and off-peak price by month, the structure takes into account the time-of-day and seasonality of the QF's wind profile. So if a QF has a higher on-peak output or a higher seasonal output such as the summer months then it would be compensated at the higher prices reflected through the market adjustments as compared to the proxy wind project. Conversely, a higher output in the off-peak hours and/or shoulder months would result in a price less than the proxy. This method has the

benefit of tying the monthly on-peak and off-peak ratios specifically to the proxy contract yet allowing the QF with the better wind profile to receive a higher avoided cost since more energy is delivered in the on-peak hours. The QF benefits economically and the ratepayers benefits with an energy delivery profile that more closely aligns with peak usage.

Q. How does this compare to Mr. Swenson's methodology using his suggestion of a GRID run to determine the off-peak price?

A. Mr. Swenson's proposed methodology provides a significantly higher on-peak and overall price than PacifiCorp's method as it specifically applies to the Pioneer Ridge project. First, I will compare a number of on-peak and off-peak price streams to show you the impact of using Mr. Swenson's wind adjustment methodology, then I will show a number of annual "avoided cost" prices that have been presented by Pioneer Ridge in this docket or are calculated as a result from the different on-peak to off-peak price ratios, and finally I will provide a comparison of the proxy and Pioneer's wind profile by month. Exhibit RMP BWG-2R.1 shows four on-peak and off-peak price streams. The first stream consists of a data request made by Pioneer Ridge in which they requested PacifiCorp to make a GRID run to determine a 100 percent capacity factor generator equal in size to the Pioneer QF project. The second stream uses the GRID off-peak stream to calculate the on-peak price necessary to net to the Proxy price in each year of the contract. This is Mr. Swenson's proposed method. The third stream is PacifiCorp's March 2005 FPC for Palo Verde and the fourth

stream is PacifiCorp's proposed method, however I averaged the monthly proposed prices back to an annualized basis for comparison. The table below summarizes the ratio of the on-peak and off-peak to the flat fixed price for each price stream.

Method	Off-peak to Fixed Price Ratio	On-peak to Fixed Price Ratio
Data Request 2.1	43%	129%
Pioneer Ridge	38%	131%
FPC	84%	112%
PacifiCorp	87%	115%

As you can see, the Pioneer Ridge method has a significantly greater spread between the on-peak and off-peak prices and Exhibit RMP BWG-2R.2 shows in chart format the price spread. In fact, the most startling point in the chart is that the calculated on-peak prices resulting from Mr. Swenson's method would have the Company paying over market in the on-peak hours in many of the early years. The next step is to show these prices on an annual fixed price basis. For this comparison, I am showing four scenarios in Exhibit RMP BWG-2R.3 table and Exhibit RMP BWG-2R.4 chart. The first is the annual price stream requested by Pioneer Ridge in their first filed contract in this Docket 05-035-09 on January 28, 2005. The second is the Proxy price stream. The third is the annualized price that would result using PacifiCorp's methodology and applying Pioneer Ridge's submitted wind profile and the fourth is Pioneer Ridge's requested pricing in their contract submitted on March 8th, 2006 under this Docket.

Below is the twenty year levelized price per MWh (7.10 percent discount rate) for those four scenarios.

PR 1st Filed Contract Dkt 05-035-09	Proxy	PAC Proposed Methodology with PR Wind Profile	PR 2nd Filed Contract Dkt 05-035-09
$48.88	$XX.XX	$59.48	$65.90

I believe the numbers speak for themselves. Pioneer Ridge submitted a contract to the Commission in January 2005 for approval with pricing they were willing to accept. That levelized price in that original contract was $48.88 per MWh. The Proxy price itself is $X.XX higher than their original requested price and under our proposed methodology with their wind profile they would receive a premium of almost $10 over their original contract price request. But with Mr. Swenson's proposed method, they would be receiving a premium of $X.XX even over the Proxy and a whopping $17.02 premium to their original request. It is understandable why Mr. Swenson is pursuing his methodology. One only has to look at a comparison of the wind profiles of Pioneer Ridge and the proxy as shown in Exhibit RMP BWG-R3. If Pioneer Ridge has a better wind profile than the Proxy and monthly on-peak/off-peak prices are used in the price structure then Pioneer Ridge benefits, as they should, because their delivery pattern is forecast to be better than the proxy. So the way to maximize that wind profile advantage is to argue for the widest price spread between on-peak and off-peak prices, thereby taking advantage of the profile and price weighting.

Q. Please summarize PacifiCorp's wind profile adjustment methodology.

A. PacifiCorp's wind profile adjustment methodology is straightforward, available to all QFs and directly links to the QF's output to that of the proxy. Our proposed methodology is fair to all QFs. The steps are simple:

1. At the time a wind contract is signed as the result of the Company's RFP, the price for the first contract year would be split into monthly on-peak and off-peak prices based on the official forward price curve used in the evaluation of the proxy contract.
2. The annual escalation / de-escalation in the proxy contract would be applied to the monthly prices each year.
3. To the extent that the QF's wind profile is better than the proxy (i.e., more generation in the on-peak period) the QF would receive more compensation as a direct result of generating more MWhs in the higher price period. This will result in an overall higher payment per MWh for all the energy generated by the QF over the same time period as the proxy.

Q. Does this conclude your testimony?

A. Yes it does.