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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 3 Megawatts	Docket No. 03-035-14

PREFILED TESTIMONY OF RICH COLLINS
On Transmission Issues

Wasatch Wind hereby submits the Prefiled Testimony of Rich Collins in this docket.

DATED this 10th day of February, 2006

Richard S. Collins

/s/_____
Richard S. Collins
Representing Wasatch Wind

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was sent by United States mail, postage prepaid, or by email this 11 day of, July 2005, to the following:

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PREFILED TESTIMONY

Of

RICHARD S. COLLINS

On behalf of Wasatch Wind

In the Matter of the Application of PacifiCorp for Approval of an IRP Based Avoided Cost Methodology for QF Projects Larger than 3 Megawatts

Docket No. 03-035-14

February 10, 2006

Q. Are you the same Richard S. Collins that testified previously in this proceeding?

A. Yes I am.

Q. On whose behalf are you filing testimony in this Docket?

A. Wasatch Wind LLC.

SUMMARY OF TESTIMONY

Q: What is the purpose of your testimony in this docket?

A: The purpose of my testimony is to provide evidence and arguments supporting the establishment of avoided transmission capital costs and avoided transmission line losses for wind resources.

Q: Could you give a summary of your conclusions and recommendations?

A: Yes. In my testimony, I explain why QF wind resources should be eligible for avoided transmission capital costs. I provide evidence supporting my conclusion that QF wind resources should receive payments for transmission line losses when the QF project is located in a transmission-constrained area. If the QF is not located in a transmission constrained area then payments for avoided line losses would occur only under special circumstances.

BACKGROUND

Q: Can you provide some background to this issue?

A: In its October 31st 2005 Order the Commission established a proxy method for determining avoided costs for QF wind projects. The proxy is the most recently executed contract resulting from a renewable RFP.

Q: Do you regard the Commission's Order as providing a favorable regulatory climate that will encourage QF wind development in the State of Utah?

A: Yes and no. I agree that the Commission's Order provides transparency and clarity about the method to determine price. This alone is a significant improvement over past methods. In theory and hopefully in practice it will provide a fair price that ensures ratepayer indifference. The Commission's decisions on a number of important issues are indeed favorable to wind resources. The final outcome provides a much more encouraging climate then what was originally recommended by a number of parties in their original testimony. As such, I think the process worked fairly well and I laud the Commission and its decisions. However, I would not state that the Order on its own will lead to the development of QF wind resources in the near term.

Q: Can you explain why the Commission's Order will not encourage wind development in the short run?

A: Yes, I will try. Recall that prices are set by the most recently executed contract from a renewable Request For Proposal (RFP). The Company's last renewable RFP was a long and drawn out process. In one respect it was very successful, bids for approximately 6000 MWs of renewable power was submitted to the Company. The vast majority were wind resources. However, the Company was only able to secure two contracts, one for a geothermal resource and one for a wind resource of less than 65 MWs. Thus, wind QFs in the State of Utah must have the same or better economic performance than the top 1% of resources bid

into the PacifiCorp system. Resources were bid from a variety of locations within the western U.S. Thus a Utah QF wind resource must either have a better wind resource, i.e., higher capacity factor, or be able to secure cheaper inputs than 99% of the projects that were bid. Thus a large percentage of projects were either rejected or could not come to terms with the Company. That, in and of itself, is a pretty high hurdle to overcome. To this extent, I would argue the Commission's Order is extremely conservative.

Q: Are there other issues that could create obstacles for QF wind developers?

A: Yes, contract negotiations can prove difficult especially if an inordinate amount of risk is placed on the QF developer. Many Utah wind developers have no other option than to sell to Utah Power. Transmission to other utilities may be difficult to secure or access to other buyers may prove difficult but this is an issue for another day.

Q: Ok, let us return to your discussion on the background on avoided costs associated with transmission issues.

A: The Commission's Order sets a basic methodology for determining indicative pricing for QF wind projects. However, it did not decide all issues surrounding the determination of avoided transmission costs. The Commission directed the Company to convene a work group to recommend a method to identify the costs, savings and timing of avoidable transmission costs, for QFs subject to Schedule No. 38. The Commission states in its Order that

"Parties agree avoidable transmission capital costs and losses

> should be included in indicative pricing ….. Parties disagree how to approach this." (Order P. 17)
>
> "Parties agree that project specific adjustments shall be made to account for differences in the QF wind profile when compared to the proxy wind resource. Wasatch Wind and Pioneer add transmission cost differences to this list and Wasatch Wind further adds differences in transmission costs and benefits and line losses. *We agree all of these factors are worthy of consideration in determining an indicative price for wind.* (Emphasis added) We find the most recently executed RFP contract, prior to the QF's request for indicative pricing, will serve as the proxy against which project specific adjustments are made to produce an indicative price for wind QFs in Utah." (Order p. 21)

The work group met four times, but was unable to reach a consensus on how to calculate avoided costs associated with transmission. PacifiCorp in its submission to the Commission argues that QF wind projects should be ineligible for any avoided transmission costs. As a result, Wasatch Wind, Pioneer Ridge, UAE and Mountain West Consulting filed requested a rehearing on the issue. The Commission granted this request and established in a January 10th 2006 Scheduling Order a procedure to resolve the issues.

Q: Can you please outline the issues involved in the transmission discussions?

A: Yes. There are two basic issues that need resolution. The first concerns developing a methodology that will calculate the extent that a QF will allow the Company to avoided costs associated with capital expenditures on transmission. The second issue concerns whether a QF will provide savings to the Company in terms of avoided transmission losses and what is the appropriate way to measure these avoided losses.

Q: What is the Company's proposal for determining avoided transmission capacity costs?

A: The Company proposes to use its existing transmission model (SIS) to evaluate the impact of adding a QF resource. The method is much like the GRID model in that the model is run with and without the QF resource. The difference in costs represents the avoided transmission costs.

Q: Do you agree with this proposal?

A: I have reservations about the resources included in the Company's model and the length of their analysis, but generally the method may prove useful.

Q: What are your reservations with the transmission model?

A: First, I have reservations about using a model that is controlled by the Company and has not been vetted or confirmed for logical consistency by an objective outsider. The second concern I have is that under its current configuration, the SIS model is incapable of estimating avoided transmission capital costs and currently underestimates the impact that a QF will have on the Company's transmission expenditures.

Q: Could you elaborate on why the model is deficient?

A: Yes, the model is deficient because it only includes existing generation and transmission resources and known resources that are either under contract or under construction. The elimination of future IRP resources from the model is a theoretical flaw. A QF fundamentally will allow the Company to avoid or delay a future IRP resource. If the resource is not included in the model then it can not

calculate the value of avoiding or delaying that resource. Excluding IRP resources makes the method an exercise in futility. When I pointed out this flaw in the technical conferences, PacifiCorp personnel stated that it made no sense to run a model with inputs that were not known with certainty. Yet this degree of uncertainty is imbedded in the Company's long term IRP planning. I recommend that if the Commission is going to adopt the use of PacifiCorp's transmission interconnection model to calculate avoided costs and benefits associated with transmission, it should extend the base case to 10 years and it should require the inclusion of IRP planned resources. I also support Phil Hayet's suggestion to use a scalar for costs of IRP avoided transmission resource in the base case.

Q: Is this a critical issue for wind QFs?

A: I believe that it is critical for thermal resources, but I am uncertain whether it will have a major impact on pricing for wind resources. The Commission has deemed the Proxy contract as the method for setting price for the wind QF. It is my understanding that RFP wind projects normally are responsible for providing the necessary transmission facilities for interconnection and upgrades. In that case the Company does not have avoidable transmission costs and transmission capital costs are captured in the contract's negotiated price.

Q: So are you conceding this point?

A: Not really, I am recommending that a QF receive avoided transmission capital costs if the Company makes capital improvements to the transmission system to accommodate the RFP Proxy wind resource. In such a case, one would expect

that the Company would negotiate with the RFP Proxy project to recover those costs. This would result in a lower Proxy contract price. The Company's costs would have to be included in the QF's indicative price to ensure ratepayer neutrality. The QF wind project should receive an avoided transmission capital cost prorated to the size of its project. However, I don't foresee this happening very often, but I strongly recommend that the Commission allow for such a possibility. It will prevent the potential for the Company and a RFP wind project to game the system.

Q: Can you state your position on transmission line losses?

A: Wasatch Wind strongly opposes the Company's position on line losses associated with wind projects. The Company recommends no adjustment for line losses. The Company's rationale as presented in its position statement reads:

> "Transmission (and distribution if applicable) losses would be applied to thermal QF projects only based on the comparison of the proximity of the locations of the QF site and the proxy resource to the Utah load center.
>
> Wind QF projects would receive no avoided cost adjustment for losses. Wind resources evaluated in the RFP include no adjustment for losses and are added as a system resource at the location where the developer has determined the wind characteristics, a forecast of the expected wind profile, which is anticipated by the developer to be sufficient to operate a wind farm successfully. Output from the wind QF is intermittent and integrated into the PacifiCorp's system for serving the nearest load, not specific to delivery to Utah's load center. (Page 5 of the Company's position statement)

The Company concedes that QF thermal resources may save the system line losses and recommends that the QF be compared to the next avoidable thermal

resource. However, even though both thermal and intermittent resources are considered system resources, intermittent resources are ineligible. The Company argues that because it did not explicitly consider line losses in its RFP process then they must not exist for a QF. It also sites the intermittent nature of the resources and the fact that wind is regarded as a system resource as justification for denying transmission losses.

I maintain that the Company must have at least subjectively considered line losses when evaluating bids; if not, then their RFP process is deficient. A hypothetical example may suffice. If a bid is submitted from a wind facility that is located in a remote area, say 300 miles or more away from PacifiCorp's nearest load, I would certainly expect the RFP evaluators to take line losses into account when evaluating the bid price. I certainly expect that a wind resource located next to significant load especially in a transmission constrained area would receive preference to a bid located in the remote area. Failure to consider a real cost will lead to a suboptimal selection and ratepayers will end up footing the bill or cost recovery could be denied to the shareholders. Failure to correctly evaluate RFP bids should not be justification for bad public policy.

Q: Are there other reasons that substantiate transmission losses for QFs?

Transmission losses are associated with the transport of energy, not capacity, along transmission lines. Energy is lost as heat as it travels along transmission and distribution lines. Losses are correlated to the distance traveled, relative capacity of the transmission lines and ambient temperature, but distance is the

factor that is most important. It is my understanding that line losses are paid on a volumetric basis, if energy is not delivered then line losses are not collected. For the Company or any other party to assert that there are no line-losses associated with a wind resource defies the laws of physics.

Q: What do you recommend as a method for determining line losses associated with wind resources?

A: In a perfect world, I would recommend that the line losses associated with each QF project be compared to the line losses associated with the Proxy resource. This will require substantial study and analysis for each QF project. It will also require that the study be revised for every newly executed RFP contract. The administrative burden could be substantial. So I suggest a compromise. QFs located within a substantial load pocket, i.e., an area that has significant transmission constraints, will receive system transmission line losses as defined by the Company's FERC tariff. If a QF is located outside a transmission constrained area it would not automatically be eligible for transmission line losses. However, I recommend that the QF be allowed to make an application for line losses if it can be shown that the QF's line losses are significantly less than the Proxy's line losses. This protects ratepayer neutrality in the event that the Proxy resource incurs significant line losses.

Q: Are there any other issues that the Commission should consider on line losses?

A: Yes, if the QF facility connects at the sub-transmission level it should be eligible for system distribution line losses as specified in the Company's FERC tariff.

Q: Does that complete your testimony?

A: Yes.