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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

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

DATED this 29th day of July, 2005.

Richard S. Collins

/s/_____
Richard S. Collins
Representing Wasatch Wind

CERTIFICATE OF SERVICE

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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

July 29, 2005

Q. Please state your name and occupation.

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

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

A. Wasatch Wind

Q. Have you submitted testimony to this Commission before?

A. Yes. I submitted prefiled testimony dated May 6, 2004, in Docket 03-035-14, the QF avoided cost docket that led to a stipulation. I also submitted testimony in Docket No. 05-035-08 and 05-035-09.

Q. Do you have experience in utility regulatory matters?

A. Yes. Prior to my position at Westminster College, I worked for the Public Service Commission of Utah for approximately 13 years.

Q. Please describe some of your responsibilities at the Commission.

A. I provided technical advice to the Commission on rate proceedings and a variety of other issues. I was responsible for tracking PacifiCorp's IRP planning process, avoided cost, demand-side management, cost of capital, and deregulation issues. In addition, I helped write orders and wrote or coauthored a series of technical reports on deregulation issues for the Commission and the legislature.

SUMMARY OF TESTIMONY

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

A: I explain the weaknesses of the Company's proposed methodology for

determining avoided costs. I propose a method for calculating avoided costs using a proxy model. The method produces avoided costs that are consistent with the Company's IRP and are relatively transparent, straight-forward and easy to use. My analysis indicates that the Company's avoided costs method is flawed for wind resources.

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

A: Yes. In my testimony, I explain that the Company's production cost model is inconsistent with its IRP and produces avoided cost rates that underestimate the value that QF projects will provide to the Company and its ratepayers. I propose a simpler and more fundamentally fair method of calculating avoided costs that insures ratepayer neutrality and eliminates the substantial barriers that exist with the Company's proposed method. I also critique a number of proposed policies towards renewable resources that run counter to the Company's stated environmental goals. I recommend that the Commission approve the proxy method for determining avoided costs because it will leave ratepayers indifferent between purchasing power from a QF or purchasing power from a non-QF provider or Company-owned resources. I recommend that the Commission approve a method that is easily understood by all parties, independently verified with results that can be replicable as well as benchmarked or calibrated so that they are representative of reality. The model should not present barriers to QF development whether they are technical or financial.

BACKGROUND

Q: You previously testify on the background of PURPA and the State of Utah's laws on cogeneration and renewable resources in the 05-035-08 and 09 dockets. Is that testimony relevant in this docket?

A: Yes, it is. The Public Utility Regulatory Policies Act (PURPA), a U.S. federal law, was passed in order to encourage the production of electricity from sources other than a regulated utility. A driving force behind PURPA was the conservation of this country's exhaustible energy resources. PURPA promotes conservation by granting Qualifying Facilities (QFs) the right to sell their power to regulated utilities. A generator becomes qualified by either using cogeneration known today as combined heat and power or by using renewable resources to produce electricity. The encouragement and development of QF projects is in the public interest because QF projects are efficient in their utilization of energy, they will allow Utah businesses to be more efficient and competitive, and they provide benefits to ratepayers.

Q: Do you think that PURPA is relevant today?

A: Yes, it is remarkable how similar the energy environment of the late 1970's is to the energy environment today. The price of oil today is almost identical to the real price of oil in 1979 when it reached an all time high. Our dependence on foreign sources of oil has grown over time and concerns about the impact of energy consumption on the environment are also growing.

Q: In your past testimony you state that both the utility and regulators have exhibited a bias against QFs, is this relevant in this docket.

A: Yes it is. The utility has a natural bias against QF contracts for a number of reasons. First is financial, a QF contract will only allow the utility to recover the costs of that contract; utility-owned generation provides a return on the investment as well as cost recovery of the initial investment. There are also operational considerations that favor utility-owned investment. Under a QF contract, the utility is obligated to purchase the power, so steps must be taken to insure that avoided costs reflect this fact.

Q: Why would regulators be bias against QF development?

A: It's not so much a conscious bias but the tendency to be conservative and avoid mistakes that creates the bias. If the Commission sets avoided costs rates that turn out to be higher than the actual avoided costs, the decision becomes an unwanted legacy that is scrutinized and reviewed at every future rate case. On the other hand, QF opportunities that are lost as a result of the underestimation of avoided costs do not receive the same attention. The Commission's goal should be to set full, but reasonable, avoided costs in order to keep ratepayers neutral, while furthering the public interest through the efficient utilization of scarce resources and the enhancement of economic vitality of Utah. The Commission is required by law to encourage QF development by setting rates based on a utility's full avoided costs.

MODEL CRITIQUE

Q: The purpose of this docket is to approve a methodology for the calculation of avoided cost for QFs. What criteria should be used by the Commission to judge the appropriate methodology?

A: There are several criteria the Commission should use to evaluate the proposed methods for calculating avoided costs. One primary criterion laid out in a previous Commission order is consistency with the Company's Integrated Resource Plan (IRP). One merely has to look at the docket title, "In the Matter of the Application of PacifiCorp for Approval of an *IRP Based* Avoided Cost Methodology for QF Projects Larger than 1 Megawatts" to grasp the importance of this criterion. The method of calculating of avoided costs should be based on the cost of resources selected in the IRP and should promote the plan's general goals. Another important criterion is that the methodology should keep ratepayers indifferent, that is, the prices paid to QFs should be reasonable and attempt to keep the rates paid by customers at a level that would be incurred absent the purchase of power from the QFs. Another criterion is that the methodology should be transparent and understandable to all parties, it should follow a principle of science called Ockam's razor which holds that competing theories related to a single proposition should be judged on the basis of both their relative usefulness and their relative simplicity. While simplicity and usefulness are the basis of traditional economic thought, too often analysts lapse into attempting to address problems in ways that are often complex and more

concerned with methodology than utility. Thus, if two methods of calculating avoided costs produce similar results then the simpler method should prevail.

The method should demonstrate logical consistency and be based on assumptions that approximate reality. It should produce results that are fair and equitable to all parties. The method should not present technical or financial barriers or burdens to the parties.

Q: What method does the Company propose in this docket?

A: The Company is using a variant of the differential revenue requirement (DRR) method to determine the avoided energy cost and a proxy method for determining capacity payments.

Q: Does the Company's proposal meet the criteria for determining an appropriate method?

A: No it does not. It fails on a number of accounts. First, it is not entirely consistent with the IRP model. Second, the Company's results do not support the conclusions drawn from the IRP. Third, it does not meet the Ockam's razor principle because it is overly complex and is difficult to both run and interpret. QF developers lack the expertise to run the model. The financial expenses to hire experts to run the model and verify the results are substantial barriers especially to small potential QF developers.

Q: What has been your experience with the model?

A: I have attended the GRID model technical conferences conducted by the Company and have attempted to run the model and understand the output of the model.

However, it has been a struggle. Although the Company has made efforts at facilitating the understanding of the model and has allocated Company personnel to help with this process, I am uncomfortable with the model and feel that I do not have the requisite knowledge and experience to fully comprehend how the model works. This may change over time, but it is an expensive proposition in terms of time and resources.

Q: What are some of the problems that you experienced?

A: Literally, the model is a black box. It is held on a stand-alone computer that can not be hooked up to a printer or the internet. This creates some logistical issues that make working with the model more difficult. Secondly, the model is not well documented. The manual lacks any description of how the model is logically constructed. Production cost models generally try to optimize some objective function subject to a series of constraints. The written documentation for the model does not rigorously explain its logic; the manual simply guides the users on how to run the model. Lacking such documentation, a user is subjected to a trial and error method to understand the logic of the model. You can make some changes to the model's inputs and run it and analyze how the results change. Unfortunately, this trial and error method is extremely inefficient as the number of combinations and permutations of the different variables is simply too large. Given that the model requires run times of up to eight hours, it would take decades to test each input. Commission staff mentioned at the GRID training session that they would need a full year to fully understand the workings of this

model.

Q: Did you encounter other problems with the model?

A: Yes, I do not have a copy of the model myself but was able to access it at Energy Strategies' office. The first attempt to run the model was unsuccessful. The Company informed us that an updated version would be sent. Weeks later after receiving the updated version, the model still would not run, again we called the Company's GRID expert, Laren Hale, who after some gallant efforts to solve our problem, referred us to the Company's IT department. A copy of the log file was downloaded, copied to a disk, uploaded on another computer and send electronically to PacifiCorp's IT department. Approximately one week later we were informed that the file name was too large and were directed to change it. Altogether these delays cost us approximately three to four weeks. Exploring the use of this model expended much of our limited resources that were allocated to this proceeding. In addition, it has been particularly difficult to decipher the output of the model. During our technical conference, Roger Swenson requested that the Company take the output from the base case run of the CCCT plant output that was assumed to be deferred by QF production and reprogram the model so that the QF project would have the exact same output. The idea was to validate the model and verify that its results would approximate reality. One would expect that the GRID calculated avoided energy costs would be exactly equal to the running costs of the deferred CCCT plant. Unfortunately, we were informed that such an exercise would involve too many man-hours manipulating the data from

the base case output tables and inputing them into the second model run. Laren Hales tried to approximate this scenario during the technical session but even with his considerable expertise and experience he was unable to perform the experiment successfully. I want to commend the Company on its efforts to educate and help parties understand how this model works. However, the Company appears to have limited personnel that can help explain and provide advice with this model. When Laren Hale was on leave for personal or vacation time, I was unable to get my questions addressed. I am also concerned that the level of commitment by the Company to help QF developers understand and work the model may diminish if and when this model is approved by this Commission. The Commission should be cognizant of the fact that for each QF project, a model run will be made and an independent analysis will have to be performed and verified by the QF developer.

Q: Are there other issues with the model.

A: After studying the output of the model, it appears that during off-peak hours the resources that are most often backed down are coal plants. This is a curious outcome and implies that the output from these plants could not get to wholesale markets for an off-system trade.

Q: What would prevent off-peak off-system sales?

A: There are a few reasons why the model may not allow off-peak off-system sales. First is the possible lack of demand for power during the night, there may simply

be no market demand. Second, there may be some transmission constraint that prevents the delivery of power to the market. Third, the price of off-peak market may be so low that the model found it uneconomic to make sales.

Q: Were you able to determine what was constraining the off-peak sales?

A: No, I was not. We attempted to increase the market size constraint within the model but that did not result in much of a change in the dispatch of the coal plants. We suspect that constraints for transmitting power might stem from the fact that firm transmission rights are used to determine the amount of trades that can occur. We have not been able to determine how to relieve this constraint.

Q: Does such a constraint make sense from an economic or practical sense?

A: No, if transmission capacity is available, even if it is non-firm, traders will use it to make sales that earn a margin. I might add that the third reason for a lack of off-system sales, lower market prices, appears to be unrealistic, PacifiCorp prides itself on having some of the lowest cost plants in the region and their marginal costs are generally lower than off-peak prices.

Q: If this unrealistic transmission constraint is embedded in the model, would this affect the avoided cost calculations?

A: Yes it would. If power from a QF could be sold on the wholesale market, the revenues from those sales should be credited to ratepayers. The difference between the wholesale prices and the marginal cost of the coal would raise the avoided costs.

Q: Have you quantified the affect of this artificial transmission constraint on avoided costs?

A: No, I have not, but I direct you to the testimony of Roger Swenson, he has done a reasonable job at estimating the avoided costs without this artificial transmission constraint.

Q: **Why do you maintain that the Grid model produces results that are inconsistent with the IRP model?**

A: The Company's method for determining avoided costs does not support the results of the IRP model. The IRP model incorporates the assumed costs of new resources, their ability to fit into PacifiCorp's system and their abilities to mitigate risk for the Company and its ratepayers. Based on this analysis, a portfolio of resources was selected that provided the optimal combination of least cost and least risk. The 2003 IRP selected approximately 1400 MWs of wind-powered resources. The 2003 IRP did not assume that wind-powered resources provided any capacity to the system, so only the value of energy was incorporated into the analysis. This IRP did a particularly good job with risk analysis and it found that wind resources helped reduce both environmental and fuel price volatility risk.

The updated 2004 IRP included higher costs for wind turbines and explicitly recognized that wind would defer the need for capacity, thus adding further value to the wind resource. Again 1200 to 1400 MWs of wind were included it the IRP action plan.

Q: So how are these IRP results inconsistent with the GRID Model and the Company's determination of avoided costs for QF wind resources?

A: The avoided cost rates that come out of the Company's proposed methodology will not support the acquisition of wind resources that the IRP deemed prudent to acquire. In other words, the Company's proposed avoided costs rates will not allow QF developers recover the cost of their wind resource that the IRP selected as least cost and least risk.

Q: Why are the GRID results so inconsistent with the IRP?

A: There are two possible reasons for this inconsistency. First, the Grid model is underestimating the value of a wind resource through some conceptual or mechanical flaw in the model. Secondly, the inconsistency between the IRP and the Company's avoided cost method may stem from the fact that the avoided cost method does not give value to the ability of wind resources to mitigate risk.

Q: Could you elaborate on the possible conceptual flaws of the model?

A: Yes, the differential revenue requirement method requires two runs of the GRID production cost model. The base case is run with the Company's existing resources and the assumed resources selected by the IRP including a 525 MW CCCT facility coming on line in 2009. A second run is made that excludes the 525 MW CCCT but includes a 525 MW CCCT zero-cost resource that runs at 100 percent capacity factor. The difference in costs between the two runs produces the estimate of avoided energy costs. This procedure might be appropriate for a QF

that employs gas-fired cogeneration but it is inappropriate for a wind powered QF. It is an apple to oranges comparison. A more appropriate way to determine the value of a wind-powered QF using the DRR method would be to replace a potential wind resource in the model with a zero-cost wind resource. But this is not possible given that wind-powered resources are not explicitly modeled in the dispatch model. The Grid Model does not include wind resources in the resource stack because the Company reasons that many of the wind plants will be QF projects.

Q: Are there other flaws with the GRID model?

A: Yes, I believe there are. The Company has made the assumption that the avoided resource will operate at a 100 percent capacity factor even when it's own CCCT operates at a much lower capacity factor. This assumption causes the model to select lower cost resources as the avoidable resource from the resource stack and thus underestimates avoided energy costs. When the capacity factor of the zero-cost resource was change to 85 percent, the avoided cost rose. The GRID model also appears to artificially restrict off-peak off-system sales. We suspect this is caused by a modeling constraint that requires that off-system sales be tied to firm transmission rights. If true, the model will not allow the use of non-firm transmission to consummate off-peak wholesale trades. This constraint appears to contradict reality given the historical capacity factors of our coal plants which typically ran at 80 and 90 percent. If this constraint exists in the model but not in the real world then the model would underestimate the value of avoided costs. If

non-firm transmission is available, in real life, a utility will certainly utilize it to make profitable off-system sales.

PROXY MODEL

Q: Do you provide an alternative to the GRID Model?

A: Yes I do. I propose a proxy model alternative. Each potential type of QF resource should have its own proxy model. Therefore the value that a CCCT QF would be determined by a CCCT proxy model, a wind-powered QF would use a wind-powered proxy, and a waste coal plant would use a coal plant as its proxy. The QFs should be allowed to make sales at these rates to the Company if the QF resource operates similarly to the avoided or proxy resource. For instance, if the deferred CCCT was assumed to be dispatched in only high load hours (HLH) then it would eligible for these proxy rates only during HLH.

Q: Isn't it possible that this method would lead to inconsistencies with the IRP, for instance, what if 2000 MWs of CCCT QFs wanted to get contracts using this proxy method.

A: The Commission could remedy this potential problem by placing caps on the amount of QF production that is eligible for this proxy pricing. The caps would be determined by the IRP. For instance, if the 525 MWs of CCCT was selected by the IRP by 2009 than only 525 MWs of QF contracts would be approved under this method. Thus the proxy method will remain consistent with the IRP.

Q: Doesn't the proxy model method violate PURPA's concept of avoided costs?

A: No, it does not. A proxy method is particularly relevant when a utility is in need of new generation resources. If a utility is in need of a CCCT then a proxy model will provide valid results for avoided costs as long as the QF operates a similar manner to the deferred resource. I would agree with the proposition that the proxy method may be inappropriate for a utility that is long on generation. In such a case, the purchase of QF power will require the utility to back down its own existing resources. Under such circumstances, a production cost model that mimics the existing system may be a more appropriate method to determine avoided costs.

Q: Have you completed the development of a wind proxy model?

A: Yes, I have. However, given the late entry of Wasatch Wind into this proceeding, it may require further development. If the Commission finds any weaknesses in the model, it could direct the Company and other parties to work with me to remedy any problems.

Q: Could you briefly explain the development of your wind proxy model.

A: I tried to make this proxy model consistent with the cost assumptions used in the IRP. I have modified the Company's model for determining a real levelized costs for a new wind resource. The costs I use are taken from the 2004 IRP and the 2003 IRP when 2004 data was unavailable. These costs were analyzed by the IRP optimization model and different portfolios of resources were analyzed. The IRP

selected several low-cost portfolios that were further analyzed for environmental and fuel volatility risk. Specially, I use $1256 per kw for the capital costs of wind turbines, $41.13for fixed O&M, $4.64 per MWh for the cost to integrating wind into the system is and an assumed tax credit of $11.01 per MWh. All these costs estimates are directly from the 2004 IRP. I use the 2003 estimate of $100/kw as the estimate for the fixed capital costs of transmission because it was unavailable in the 2004 IRP. It is assumed that these costs are spread over twenty years and are escalated at the IRP assumed rate of escalation then levelized to get a real levelized costs on a kWh basis. The result is a cost of $.0655/kWh which subtracts the assumed value for green tags of $2.

Q: How do your results compare to the Company's method?

A: As shown in Exhibit RSC-1 the assumed cost of wind resources is approximately $.0655/kWh. Recall that the IRP model selects 1400 MW of these resources at that price and an assumed capacity factor of 30-37 percent. The Company, relying on the GRID model, is only offering $.0468/kWh for a resource with an 85 percent capacity factor. The Company then makes a series of adjustments that substantially lowers this avoided cost if it is a wind resource. A recent offer to a Utah QF wind project was in the $.037/kWh range. It is not surprising that the Company has not signed any QF contracts with renewable resources. One must conclude that either the avoided cost method is faulty or the IRP is faulty. Given that the IRP has been extensively analyzed and acknowledged by this Commission, it is far more likely that the avoided cost method needs revision.

Q: Is the Company offering avoided costs rates to non-QF wind developers?

A: I don't believe so, I direct the Commission to review the contract the Company signed with a 64MW wind facility in Idaho. What the Company is actually acquiring may be substantially different than what it offers a QF wind resource.

Q: Why is your proxy method superior to the Company's DRR model for a wind resource?

A: My model uses the Company's estimated cost for acquiring wind resources that were fully analyzed by the IRP model. In selecting 1400 MWs of wind resources, the IRP model concludes that the acquisition of wind resources at $.0655 will lower costs and lower risks to the Company and it ratepayers. The Company's DRR model does not even have wind in its resource stack to dispatch. It estimates the cost of deferring a gas-fired CCCT and then makes tortured adjustments to this estimate to derive an avoided cost for a wind resource. Such a complicated process is unnecessary and inaccurate. If the Company is planning to build or purchase wind resources to fulfill its IRP least-cost commitments then purchasing power from a QF wind resource will merely avoid the costs of building or purchasing a similar amount of the resource.

WIND-SPECIFIC ISSUES

Q: Are there other issues about the determination of avoided cost payments to renewable QFs that concern you.

A: Yes, there are a number of issues that need to be addressed in order to fairly

compensate renewable QF development. They include: the appropriate capacity payments, the issue of integration costs, and the ownership of the green tags also known as renewable energy credits or RECs, In every case the Company has taken a stand that lowers the avoided costs and discourages renewable QF development.

Q: Can you discuss the issue of green tags in more detail.

A: Yes, the Company is claiming that it has the rights to the economic value of the green tags when it enters into a contract with a renewable QF developer. The FERC has recently ruled that PURPA does not convey the rights of green tags to the utility when it enters into QF contract. Further, it found that states may confers such rights to the utility, but it must find its authority to do so in state law.

Q: Is this policy to take ownership of the Green Tags without compensation to the QF developers consistent with PacifiCorp's stated environmental policy?

A: No, it is not consistent with stated Company environmental policy. A quick perusal of both PacifiCorp and Scottish Power corporate literature found on the internet shows numerous cites and quotes that tout the Company's strong commitment to environmental issues and renewable resources. "PacifiCorp was the most vigorous utility supporter of the federal renewable portfolio standard, and went on record against measures that would weaken the profitability of wind development." "PacifiCorp has made wind a key component of its Integrated Resource Plan." Scottish Power states in its Environmental Performance Report

2002/2003 that in order to reach its goal of becoming an a leading international energy company it must balance its need to supply its customers with secure and affordable energy with addressing the environmental issues of climate change and emission reductions. The Company proposed treatment of the Green Tags of QF projects appears to be at odds with their stated corporate strategy.

Q: What are your concerns about the Company's proposal for capacity payment to QF wind projects?

A: I have concerns about this adjustment. First, I believe the adjustment is unwarranted. The adjustment is based on the energy and capacity of a gas-fired CCCT. This again is an apples to oranges comparison. The IRP selected wind resources as a necessary component of a least-cost least-risk portfolio. QF wind projects should be compared to other wind projects that the Company is planning on acquiring. Secondly, the Company proposes to provide volumetric pricing on an on-peak/off-peak basis. In order for a wind project to be eligible for 20% of the capacity payment it must have a 35% capacity factor during *on-peak* hours. This is particularly harsh to the QF developers and represents a double adjustment. If the wind is to get capacity payments for only producing energy during on-peak hours then it should be get a full payment during the on-peak hours it produces. The 20% capacity payment for a 35% capacity factor wind facility was instituted to reflect the fact that the wind facility would produce during off-peak hours.

Q: The Company also makes an adjustment for the cost of integrating wind into its system, costs that include the incremental operating costs to accommodate an intermittent resources as well as and the incremental reserve requirements that may be needed. What are your concerns about these adjustments?

A: I'm sorry if I sound like a broken record, but I do not believe these adjustments are relevant because the Company would incur the same costs when it builds or buys wind power from a non-QF source. The IRP has already incorporated these cost into its analysis and it selected the wind resource. It is not an avoidable cost because the Company would incur this cost when it acquire non-QF wind resource.

Q: If the Commission accepts the Company's GRID model method for determining avoided costs for wind resources what adjustment do you recommend?

A: I recommend that capacity payments to a QF wind project be based on the capacity factor achieved during the peak load hours. If a project provides a 35 percent capacity factor during peak load hours it should receive a 35 percent capacity payment. Adjustments should also be made for the risk mitigation that wind resources provide. An adjustment should be made for the reduction in environmental risk and for reduction in gas price volatility risk. The environmental risk may be difficult to quantify, but the attempts have been made to quantify the gas price risk. Recent analyses indicate that the value of this hedge

at $0.5 to $0.8 /kWh or $0.4 to $0.6/ kWh for a highly efficient gas plant.

Q: Are there any other issues that may affect a QF contract for wind developers?

A: Yes, there is the issue of debt imputation for long-term contracts. I don't believe that the size of the wind projects contemplated will have a material effect on the capital structure of PacifiCorp and therefore should not be taken into account during the contract negotiations. Too many variables determine the debt rating of a major corporation the size of PacifiCorp, any attempt to impute added costs of capital for the possible imputation of debt for a wind contract is like trying to blame a flea for causing a fighter from making his weight class.

Q: Can you summarize your testimony and recommendations?

A: I recommend that the Commission approve a proxy method for determining avoided costs for wind resources. The DRR method proposed by the Company does a poor job of estimating the avoided cost for this resource and its results are inconsistent with the Company's own IRP results. The Commission should consider a proxy model for other types of QF resources based on IRP assumed costs for those resources. The Commission should make adjustment to the proxy model prices if the QF resource operates differently than the deferred resource. It may be necessary to use a production dispatch model to make that determination. However with a wind resource this adjustment would be unnecessary. A Company owned wind resource will be intermittent as will a QF resource. In fact

wind resources from a variety of locales with increase the value of wind through diversity. Green Tags should remain with the QF developer unless the Company explicitly contracts for their purchase. The Commission may want to establish a price that the Company would have to offer the developer for their tags, but it would be an option that would be exercise at the developers discretion.

Q: Does this conclude your testimony?

A: Yes it does.