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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF A REVIEW OF THE SURROGATE AVOIDABLE RESOURCE (SAR) METHODOLOGY FOR CALCULATING PUBLISHED AVOIDED COST RATES	)	**CASE NO. GNR-E-09-03**
	)	**COMMENTS OF THE COMMISSION STAFF**

COMES NOW the Staff of the Idaho Public Utilities Commission, by and through its Attorney of record, Scott Woodbury, Deputy Attorney General, and in response to the Notice of Review of Avoided Cost Methodology and Notice of Comment Deadline issued on August 6, 2009, submits the following comments.

BACKGROUND

On August 6, 2009, the Idaho Public Utilities Commission (Commission) initiated a generic electric case to assess the continued viability of the Commission's existing proxy unit or surrogate avoidable resource (SAR) methodology for calculating published avoided cost rates. Specifically, the Commission intends to explore the continued reasonableness of using published avoided cost rates as presently calculated for all QF resource types.

Out of the nationwide energy crisis of the late 1970s, Congress enacted the Public Utility Regulatory Policies Act of 1978 (PURPA). Sections 201 and 210 of PURPA require electric

utilities to purchase power produced by co-generators or small power producers that obtain qualifying facility (QF) status. Under PURPA Section 210(b) the rate to be paid for such power is not to exceed "the incremental cost to the utility of alternative electric energy."

Pursuant to Congressional directive, the Federal Energy Regulatory Commission (FERC) promulgated rules implementing Sections 201 and 210 of PURPA. Under FERC rules, the utility requirement to purchase from QFs is set out in 18 C.F.R. § 292.303(a). The rate a qualifying facility is to receive for the sale of its power is generally referred to as the "avoided cost" rate – the incremental cost to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility, such utility would generate itself or purchase from another source. 18 C.F.R. § 292.101(b)(6). PURPA Section 210(b) and related FERC regulations provide that the rates for QF purchases shall: (1) be just and reasonable to the electric consumers of the electric utility and in the public interest; and (2) not discriminate against qualifying co-generators or small power producers. 18 C.F.R. § 292.304(a)(1)(i)(ii).

There are two general caveats under PURPA: (1) electric utilities are not required to pay more than the utility's avoided costs for purchases of QF capacity and energy (PURPA Section 210(b); 18 C.F.R. § 292.304(a)(2)); and (2) co-generators and small power producers in their sales to utilities are not to be subjected to pervasive utility type regulations, i.e., regulation respecting (i) the rates of electric utilities; and (ii) the financial and organizational regulation of electric utilities. PURPA Section 210(e); 18 C.F.R. § 292.602(c)(1)(i)(ii).

In implementing PURPA, the Idaho Commission has developed a body of regulatory decisions in generic rate setting and complaint actions since 1980 that set out the general principles and framework under which Idaho electric utilities are to purchase power from qualifying facilities.

Avoided Cost Methodology for QFs Larger than 10 aMW

PURPA requires only that the Commission establish and make available published rates for projects 100 kW (i.e., one-tenth of 1 MW) and smaller. 18 C.F.R. § 292.304(c). The current threshold established by this Commission for published rate eligibility is 10 aMW. The Commission-approved methodology for establishing rates for QFs larger than 10 aMW (QFs not eligible for published rates) is based on a utility's Integrated Resource Plan (IRP), using a least-cost planning based methodology. As provided in Commission Order No. 25884, pages 4-5, this methodology operates as follows: First, the utility determines through its least cost plan model

the cost of meeting load over the next 20 years. Whenever a proposed QF project is offered to the utility, the utility inserts the generation and capacity of the project into the model and determines what cost would be avoided over the 20-year period. That avoided cost is the rate available to the developer. Requiring developers of such projects to prove their viability by market standards ensures that utilities will not be required to acquire resources priced higher than would result from a least-cost planning process. Ratepayers will not be disadvantaged and QFs will be treated fairly and consistently with the requirements and goals of PURPA.

The Commission in its Notice stated that it is satisfied that avoided costs for QFs larger than 10 MW under current methodology are calculated correctly. Accordingly, the avoided cost methodology for large QFs is not being reviewed in this case docket.

Published Avoided Cost Rates (for QFs Smaller than 10 aMW)

The current administrative SAR methodology for calculation of published avoided cost rates for QFs smaller than 10 aMW is based on the estimated costs that a utility would incur in constructing a natural gas-fired combined cycle combustion turbine (CCCT). Prior to that, the surrogate was a hypothetical base load coal-fired generation plant. In selecting a gas-fired CCCT to replace the coal SAR, the Commission in Case No. IPC-E-93-28 noted that the Northwest Power Planning Council (Council) had adopted a gas-fired CCCT as the regional resource of choice. Order No. 25884, p. 3. The Commission then stated that if, in the future, a gas CCCT proves not to be a viable, cost-effective resource, then the Commission is free to again alter its choice of the surrogate. *Id.* Based on recent filings at the Commission by Idaho's electric utilities, the Commission is concerned that a disparity exists between Idaho's published avoided cost rate established using a natural gas-fired surrogate resource and the cost to a utility of developing and operating its own wind generation project.

The appropriateness of a single avoided cost SAR methodology for published rates is being re-examined in the context of PURPA and FERC requirements and the comparative and different generation and operation capabilities of resources being offered to Idaho utilities, e.g., capacity factor, dispatchability, intermittency.

To establish a basis for discussion and analysis and to determine the nature and scope of further procedure, the Commission in its Notice posed the following questions:

1. Does the present SAR methodology for published avoided cost rates need to be modified or augmented? Yes or no.

2. If answer to Question 1 is no, please provide the basis for your answer.

3. If answer to Question 1 is yes,
   a. Please provide the basis for your answer.
   b. In broad and general terms, how should the methodology be modified or augmented?

STAFF ANALYSIS

As described in the background section of these comments, the SAR method has been used since PURPA was first implemented in Idaho. In Staff's opinion, the SAR method has generally worked well. Approximately 100 QF contracts representing over 700 MW have been signed since 1982. The contribution of QF power to the power supply portfolios of Idaho's utilities is significant.

It is difficult to judge at contract inception whether PURPA avoided cost rates have been set too high or too low. Until contracts reach the end of their term, it is not always possible to compare contract rates with the prices a utility would have paid for power from another source. Maximum contract lengths have ranged from 20 to 35 years, and no contract has yet reached its full term. Rates that may have seemed high at the time the contracts were signed now seem reasonable compared to today's prices and may seem like a bargain as contracts approach expiration.

A base load resource has historically been used as the SAR because it has been assumed that QFs would generate as much and as often as they could, and that the utility would be forced to accept delivery of the power regardless of its need for either capacity or energy at the time of delivery. Most early QFs were either small hydro projects or cogeneration projects at wood products companies. Furthermore, the majority of small hydro projects utilized irrigation systems – either irrigation supplies or irrigation runoff. Although generation from these projects was seasonal, when they did generate, they did so predictably and consistently.

For an SAR method to be effectively employed, the SAR must share some of the same generation characteristics as the QF resources whose output is being purchased by the utility. Ideally, the SAR is similar in terms of its ability to provide capacity and energy, its relative proportion of fixed and fuel costs, its environmental costs and benefits, its transmission costs, and other factors. Difficulties with the SAR method arise when the SAR has characteristics that

are very different from the QF resource. Adjusting for the differences can require awkward adjustments that may not be very accurate.

In the past few years, the majority of new QFs have been wind facilities, although there have been a few hydro projects and anaerobic digestion facilities at dairies. A gas-fired CCCT — the current SAR — obviously has characteristics that are much different than a wind project. For example, a gas-fired CCCT is dispatchable, provides firm capacity, provides generation generally considered to be base load, and has substantial fuel cost and fuel price risk. A wind facility is not dispatchable, provides little or no firm capacity, provides varying amounts of intermittent generation, and has no fuel costs or fuel price risk. The current gas-fired CCCT SAR is a poor fit for a wind QF.

Although it would be convenient if a single SAR could be used as the basis for computing rates for a variety of different QF generation technologies, in Staff's opinion, the widely differing characteristics of new QF technologies no longer makes that possible. As new technologies have emerged or become cost effective, differences in the characteristics and value of the power produced by those technologies has become more apparent.

In the past it has been implicitly assumed that the SAR was a single resource type, whether a coal plant or a gas-fired CCCT, that represented the next resource likely to be built by the utility, and that would be deferred or displaced by QF generation. The reality, however, is that each utility's new resource portfolio is a blend of multiple resource types. In fact, each utility's new resource portfolio is generally a combination of conservation, gas-fired peaking and base load facilities, and wind or other renewables. Because all three of the utilities have wind as a significant portion of their future resource portfolios, it is highly likely that all three utilities will acquire, or continue to acquire, wind outside of the PURPA process.

As defined by PURPA, "avoided cost" is the incremental cost to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility, such utility would generate itself or purchase from another source. 18 C.F.R. § 292.101(b)(6). For the first time in the history of PURPA in Idaho, utilities are actually acquiring the same type of resources outside of PURPA as through PURPA. This presents an opportunity to accurately match PURPA avoided cost rates to the rates utilities are paying to acquire new generation.

Clearly, use of a wind project as an SAR to compute avoided cost rates for wind QFs makes a lot of sense, but whether it is necessary is a separate question. Whether the current published avoided cost rates are a fair price for wind generation should probably be determined

by examining the costs utilities would incur to acquire wind through mechanisms other than PURPA. If a utility is acquiring or planning to acquire the same type of resources under RFP processes as it is being obligated to acquire under PURPA, the prices for the same type of resources should be similar regardless of the means employed to acquire them. All three of the utilities should have current cost data for wind projects as a result of recent acquisitions, RFPs, or unsolicited proposals. Wind project cost and performance data should be readily available since wind generation has become common in or around the service territories of all three utilities. Staff is hopeful that each of the utilities will provide cost information in this proceeding that will permit fair comparisons between current avoided cost rates and prices for wind acquired through mechanisms other than PURPA.

Different Rates for Different QF Technologies

FERC rules implementing PURPA provide that rates for purchases may differentiate among qualifying facilities using various technologies on the basis of the supply characteristics of the different technologies. 18 C.F.R. § 292.304(3)(ii). In other words, different rates for different QF technologies are permissible under PURPA. It would seem to follow then that different methods could be used to compute rates for different technologies, and furthermore, that multiple SARs with different costs and characteristics could be used to compute avoided cost rates. Consequently, Staff believes there are no legal impediments to adopting a wind SAR.

Renewable Energy Credits

One issue that has been particularly contentious between utilities and QF developers is that of ownership of Renewable Energy Credits (RECs). While there are currently no REC requirements in Idaho, Avista and PacifiCorp already must satisfy REC ownership requirements in other states. If a utility builds a renewable project, it owns the environmental attributes or RECs associated with the project's generation. However, if the utility buys from an otherwise identical QF wind project, there is uncertainty, at least in Idaho, about whether the utility or the QF owns the RECs. Furthermore, there is uncertainty about whether the authority to determine ownership rests with the Commission or the Legislature. In any case, RECs have value, whether to meet state or federal requirements, or as a marketable commodity.

Utilities are concerned that if they are not assigned the RECs associated with QF purchases, they may need to pay a premium above current avoided cost rates to acquire them; or

alternatively acquire RECs to meet RPS requirements in another manner. Utilities are also concerned that they may be required to pay more for QF purchases that do not come with RECs than they would pay to acquire wind generation through other mechanisms where RECs are included.

While the REC ownership question has been at the forefront, Staff believes that the real issue is whether the avoided cost rate is set fairly given whichever assumption is made about who owns the RECs — utility ownership or QF ownership. An avoided cost rate that reflects the inclusion of RECs should naturally be higher than an avoided cost rate that does not include them.

If a wind SAR were adopted, the issue of REC ownership would be resolved, at least in the case of wind projects. With a wind SAR, the utility would own the project and all attributes associated with it, including its RECs. Consequently, the avoided cost rates computed based on the wind SAR would include the RECs regardless of their value. It would not be necessary to compute a separate value for RECs because their value would be embedded in the cost of wind used to establish the avoided cost rate. In exchange for paying the wind SAR-derived avoided cost rate, the utility would receive both the energy and the RECs from the QFs.

Staff acknowledges that a wind SAR might not resolve all the issues related to RECs, however. For example, a wind SAR may resolve the REC ownership question for wind QFs, but it does not resolve the ownership question for other types of QFs. If the avoided cost rates for QF technologies other than wind continue to be set using a gas-fired CCCT that produces no RECs, the ownership question will remain an issue. In addition, a wind SAR also would not resolve the REC ownership question for existing contracts or those that are currently being negotiated, no matter what type of generation technology they use.

Dispatchability

One of the biggest differences between the current SAR and PURPA QFs is that the SAR is fully dispatchable and PURPA QFs are not (at least none to date have been dispatchable). Dispatchable resources have value for a utility, both because they can be operated whenever needed and because they do not need to be operated when not needed. All dispatchable resources provide some capacity. However, even some non-dispatchable QFs provide some capacity, while other QFs provide none at all. For example, a geothermal QF produces nearly the same amount of generation during all hours throughout the year. A hydro QF on an irrigation

system generates a consistent, predictable amount during irrigation season. Wind QFs, on the other hand, provide little or no capacity because their generation is intermittent and unpredictable.

A project must provide capacity in order to be dispatchable. The value of capacity depends on when it is provided. Capacity provided during peak hours, days or seasons has substantially more value than capacity provided at other times. There may be times when providing capacity has no value. Consequently, higher capacity factors do not always necessarily mean higher value. Moreover, the value of capacity will vary over the life of the project depending on the utility's capacity position.

The difference between different QF resources' and an SAR's dispatchability and ability to provide capacity has never been accounted for in Idaho's avoided cost methodologies. While it may be more necessary now than ever before, to do so could be difficult, especially now that there has become a much wider diversity of QF resource types with characteristics quite different from a gas-fired CCCT SAR.

However, if a wind SAR were adopted for purposes of computing avoided cost rates — at least for wind QFs — assigning a value to capacity or dispatchability would not be necessary. As long as the SAR used to compute rates has the same characteristics as the QF resources for which the rates are being set, there is no need for adjustments to account for differences.

Wind Integration

A wind integration charge is currently applied to the published avoided cost rates for wind QFs. The wind integration charge acts as a discount to reduce the rates paid to wind projects and accounts for the increased cost to the utility of integrating an intermittent resource. Wind integration charges have been established based on studies performed by each utility.

Establishment of wind integration charges has historically been time consuming and contentious. If a wind SAR is adopted, wind integration charges would no longer have to be quantified. The presumption would be that the utility would incur wind integration charges of the same magnitude whether the resource was an SAR owned by the utility or a wind QF owned by someone else. Although there still may be other reasons for computing wind integration charges, it would not be necessary to compute them for purposes of published avoided cost rates.

Emission Adders, Fuel Risk Adders

Nothing in the current SAR methodology recognizes the value of reducing fossil fuel use (e.g., reduction in CO2 taxes, value of SO2 credits), benefits that a QF may provide that would not be provided by a gas-fired CCCT. If a QF causes some fossil-fueled resource to be deferred, displaced, or operated less, and thus have lower emission costs, it currently receives no credit for it. As emission costs begin to be imposed on fossil-fueled facilities, it could be argued that credit for the emission reductions attributable to QFs is warranted.

Similarly, some QFs, wind in particular, have no fuel costs. Therefore, unlike a gas-fired CCCT SAR, wind presents no fuel cost risk. It could be argued that QFs with no fuel cost risk deserve credit for this benefit also.

If a wind SAR were adopted, the questions of emission adders and fuel risk adders to published avoided cost rates become moot. One reason utilities IRPs include wind resources in their preferred portfolios is because of the absence of emission costs and fuel price risk. As long as utilities continue to plan to acquire wind resources outside of PURPA, it is reasonable to assume for purposes of avoided cost rates that wind is truly an "avoided resource." Thus, adoption of a wind SAR will permit the Commission to steer clear of addressing the thorny issue likely to arise in the future of emission adders and fuel risk adders.

Development of a Wind SAR

Development of a wind SAR would be technically straightforward in Staff's opinion. A modified avoided cost spreadsheet could be developed, very similar to the spreadsheet currently used to compute rates using a gas-fired CCCT SAR. It would require that a variety of input data be adopted, including identification of reliable data sources and a process for consistent updating. However, in addition to the usual cost and performance assumptions and variables, it would also require consideration of new variables such as tax credits (production tax credits, investment tax credits, sales tax exemptions, loan guarantees, and other financial incentives available to utilities).

Despite being relatively straightforward technically, however, Staff believes that it would be quite difficult for Staff, utilities, intervenors and other interested parties to reach consensus on the details of a wind SAR. There will likely be disputes over which variables to include and over the values assigned to each variable. Nearly all of the difficulties experienced in defining values for the current CCCT SAR would also be experienced with a wind SAR.

Staff believes that if a wind SAR is adopted, it should be used only to compute avoided cost rates for wind QFs. The existing gas CCCT SAR should continue to be used to compute rates for all other resource types. It may be necessary at some time in the future to make further adjustments to the avoided costs rates from either SAR, or even to introduce another new SAR. Solar, for example, could be the next major wave of QFs in the future, and it has generation characteristics different from any QF technologies now being widely used. Similarly, wind generation, while now becoming commonplace, might be able to utilize new energy storage technologies or be supplemented by backup generation that could increase its value.

Adjustments to Avoided Cost Rates Would Still Be Necessary with a Wind SAR

Even if a wind SAR is adopted, there are still some adjustments made to avoided cost rates that Staff believes need to be retained. "Seasonalization" is an adjustment made to recognize changes in the value of power throughout the year. In seasons when power is normally plentiful and less expensive, in the spring for example, a seasonalization factor less than one is applied to reduce avoided cost rates. In other seasons when power is more expensive, such as in the summer and winter, a seasonalization factor greater than one is applied to increase avoided cost rates.

A daily load shape adjustment recognizes differences in power value between heavy and light load hours. The adjustment increases avoided cost rates for power delivered in heavy load hours and decreases rates for power delivered in light load hours. Staff believes this adjustment is still appropriate for all QF generation technologies, regardless of what type of SAR is used to compute avoided cost rates.

In addition to retaining seasonal and daily load shape adjustments, Staff also believes that the current requirement for a mechanical availability guarantee (MAG) should be retained. MAG requirements for wind projects recognize reliability by requiring that project facilities are mechanically available to operate whenever there is sufficient wind.

RECOMMENDATIONS

Adoption of a wind SAR will not completely solve all the issues associated with use of a gas-fired CCCT SAR for computing published avoided cost rates for all QF resource types. In addition, the process of developing a wind SAR is likely to be contentious and time-consuming.

Nevertheless, Staff believes a wind SAR is necessary in order to establish avoided cost rates that are fair for QF resource types with very different characteristics.

Staff recommends that the Commission issue an order adopting a wind SAR to be used as the basis for computing PURPA avoided cost rates for intermittent wind projects. The order should direct the Commission Staff, the utilities and all interested parties to conduct workshops for the purpose of identifying generic and utility-specific variables needed to fairly and accurately compute avoided cost rates for wind projects. Once those variables are identified, they should be quantified and a source or process should be identified that will enable regular updates. A reasonably simple, transparent model should be developed to perform the necessary computations, similar to the model currently used to compute avoided cost rates for other PURPA projects. Anticipating that the process may take several months to complete, grandfathering criteria should be proposed to determine eligibility for existing rates of wind projects already engaged in contract negotiations. Existing rates should continue to be available to grandfathered wind projects and to all other generating resource types, and the existing gas-fired CCCT avoided cost model should be retained to compute rates in the future for all non-wind projects.

Respectfully submitted this 18th day of September 2009.

Scott Woodbury
Deputy Attorney General

Technical Staff: Rick Sterling

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 18TH DAY OF SEPTEMBER 2009, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF,** IN CASE NO. GNR-E-09-03, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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