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Attorney for the Commission Staff

# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER )	
COMPANY'S APPLICATION TO UPDATE ITS )	CASE NO. IPC-E-13-22
WIND INTEGRATION RATES AND CHARGES. )	
)	COMMENTS OF THE
)	<b>COMMISSION STAFF</b>
)	

**COMES NOW** the Staff of the Idaho Public Utilities Commission, by and through its Attorney of record, Kristine A. Sasser, Deputy Attorney General, and in response to the Notice of Modified Procedure issued in Order No. 33054 on June 11, 2014, in Case No. IPC-E-13-22, submits the following comments.

#### **BACKGROUND**

On November 29, 2013, Idaho Power Company filed an Application with the Commission seeking to update its wind integration rates and charges. The Company's Application includes a 2013 Wind Integration Study Report as well as the supporting testimony of Philip DeVol and Michael J. Youngblood.

# The Application

Idaho Power reports rapid growth in wind generation over the past several years. Idaho Power maintains that it currently manages a total of 678 megawatts (MW) of wind generation

capacity on its system—577 MW of capacity are provided by Public Utility Regulatory Policies Act (PURPA) projects and an additional 101 MW of wind generation capacity is provided by a non-PURPA project (Elkhorn Valley Wind Farm). Idaho Power states that 505 MW of its total wind generation capacity has been added to the Company's system during 2010, 2011, and 2012.

Idaho Power's Application maintains that, due to the variable and intermittent nature of wind generation, the Company must modify its system operations to successfully integrate wind projects without impacting system reliability. Idaho Power explains that it must provide operating reserves from resources that are capable of increasing or decreasing dispatchable generation on short notice to offset changes in non-dispatchable wind generation. The effect of having to hold operating reserves on dispatchable resources is that the use of those resources is restricted and they cannot be economically dispatched to their fullest capability. Idaho Power states that this results in higher power supply costs that are subsequently passed on to customers.

Idaho Power asserts that its capability to integrate wind generation is nearing its limit. The Company maintains that, even at the current level of wind generation capacity penetration, dispatchable thermal and hydro generators are not always capable of providing the balancing reserves necessary to integrate wind generation. Idaho Power states that this situation is expected to worsen as wind penetration levels increase, particularly during periods of low customer demand.

The Company states that it considers the cost of integrating wind generation in its integrated resource planning when evaluating the costs of utility and third-party generation resources. Idaho Power maintains that the costs associated with wind integration are specific and unique for each individual electrical system based on the amount of wind being integrated and the other types of resources that are used to provide the necessary operating reserves. The Company explains that, in general terms, the cost of integrating wind generation increases as the amount of nameplate wind generation on the electrical system increases. Idaho Power asserts that a failure to calculate and properly allocate wind integration costs to wind generators when calculating avoided cost rates impermissibly pushes those costs onto customers, making them no longer indifferent to whether the generation was provided by a PURPA Qualifying Facility ("QF") or otherwise generated or acquired by the Company.

The Company discusses three separate methods by which wind integration costs could be accounted for in avoided cost rates.

1) Maintaining current allocation;

- 2) Current allocation with an integration tariff; and
- 3) Equitable allocation of costs.

The Company's Application proposes two overall changes, which have been incorporated into each of the three methods offered above, to address the collection of wind integration costs. Change one abandons the use of percentage of avoided cost rate allocation and instead allocates a fixed amount based upon penetration level. Change two decouples the wind integration charge from the avoided cost rate contained in the power sales agreement and instead has wind integration costs assessed as a stand-alone tariff charge.

#### **Procedural History**

A Notice of Application was issued on December 31, 2013, allowing 21 days for intervention. Idaho Winds, LLC; Snake River Alliance; Cold Springs Windfarm, LLC; Desert Meadow Windfarm, LLC; Hammett Hill Windfarm, LLC; Mainline Windfarm, LLC; Ryegrass Windfarm, LLC; Two Ponds Windfarm, LLC; Renewable Northwest Project; America Wind Energy Association; Cassia Windfarm, LLC; Hot Springs Windfarm, LLC; Bennett Creek Windfarm, LLC; Cassia Gulch Wind Park, LLC; Tuana Springs Energy, LLC; High Mesa Energy, LLC; Rockland Wind Farm, LLC; Idaho Wind Partners I, LLC; and Meadow Creek Project Company, LLC, petitioned for, and were granted, intervention. A Notice of Parties was issued on January 31, 2014.

Twelve intervenors<sup>1</sup> (all qualifying facilities, "QFs") represented by the firm of Richardson Adams filed a Motion to Dismiss on January 31, 2014 (hereafter, "Petitioners"). Petitioners argued that federal preemption principles should apply that would prohibit the Commission from considering the Application of Idaho Power. On February 7, 2014, pursuant to Rule of Procedure 256.04, the remaining Intervenors<sup>2</sup> filed motions in response to the Motion to Dismiss. Idaho Power filed an Answer to the Motion to Dismiss and additional motions on February 21, 2014. The Petitioners filed a Reply to Idaho Power's Answer on February 28, 2014.

<sup>&</sup>lt;sup>1</sup> Cold Springs Windfarm, LLC; Desert Meadow Windfarm, LLC; Hammett Hill Windfarm, LLC; Mainline Windfarm, LLC; Ryegrass Windfarm, LLC; Two Ponds Windfarm, LLC; Cassia Wind Farm, LLC; Hot Springs Windfarm, LLC; Bennett Creek Windfarm, LLC; Cassia Gulch Wind Park, LLC; Tuana Springs Energy, LLC; and High Mesa Energy, LLC.

<sup>&</sup>lt;sup>2</sup> American Wind Energy Association; Idaho Wind Partners I, LLC; Idaho Winds, LLC; Renewable Northwest Project; Rockland Wind Farms, LLC; Snake River Alliance; and Meadow Creek Project Company, LLC.

#### Order No. 33030

The Commission issued Order No. 33030 on April 30, 2014, denying Petitioners' Motion to Dismiss. The Commission stated that "[a] Commission proceeding commenced to consider a request by a utility to update its wind integration rates and charges does not conflict with federal statutes." Order No. 33030 at 7. However, the Commission clarified that "any Commission approved modifications to Idaho Power's wind integration rates and charges will only apply prospectively – to new contracts as they are entered into by the parties and submitted to the Commission for approval." *Id.* at 8.

The Commission allowed parties fourteen days to withdraw as intervenors if any party believed that, based on the ruling in Order No. 33030, it no longer had a direct and substantial interest in the underlying proceeding. Several parties withdrew from the case. An Amended Notice of Parties was issued on May 20, 2014. Thereafter, pursuant to the Commission's directive, Staff informally discussed a procedural schedule, service of discovery, and other issues pertinent to the processing of this case with the remaining parties.

#### STAFF ANALYSIS

# **Current Wind Integration Charges and Application to Existing Contracts**

Idaho Power completed its initial wind integration study and published the study report and a subsequent addendum in 2007 ("2007 Study"). The results of the study indicated that at approximately 500 MW of nameplate wind generation, there was an associated integration cost of \$7.92/megawatt-hour ("MWh"). The other Idaho investor-owned utilities, Avista and Rocky Mountain Power, completed wind integration studies at approximately the same time and each utility filed a petition with the Commission asking to reduce avoided cost rates for wind projects based on the results. Although the Commission did not combine the three utility petitions into a single case, all three were processed simultaneously (Commission Case Nos. IPC-E-07-03, AVU-E-07-02, and PAC-E-07-07). Joint settlement discussions were conducted with all parties in the three cases. Separate settlement stipulations were adopted in each case establishing a tiered integration cost structure that increased as nameplate wind generation increased.

Specifically for Idaho Power, the Commission issued Order No. 30488 in February 2008 approving a joint settlement stipulation. The stipulation also established a cap of \$6.50/MWh with the understanding that each of the utilities would update their integration studies in the future as more wind generation was added. Order No. 30488 states:

Idaho Power's published avoided-cost rates for Wind QFs will be adjusted to recognize an assumed cost of integrating the energy generated by Wind QFs as a part of the Company's generating resource portfolio. The rate adjustment will be applied in three tiers, increasing as the total amount of wind integrated onto Idaho Power's system grows. The integration charge for each Wind QF project will be calculated at the time a Wind QF project achieves its Operation Date as that term is defined in the Firm Energy Sales Agreement (FESA) between the Company and the wind QF. The integration charge will be calculated as a percentage (7%, 8% or 9%) of the current 20-year, levelized, avoided-cost rate, subject to a cap of \$6.50/MWh. The integration charge as calculated on the Operation Date will remain fixed throughout the term of the contract and will be applied as a decrement to the applicable published rate according to the table below:

	Amount of Wind Online	Integration Charge
Tier 1	0 to 300 MW	7% (\$6.50/MWh cap)
Tier 2	301 MW to 500 MW	8% (\$6.50/MWh cap)
Tier 3	501 MW and above	9% (\$6.50/MWh cap)

With 678 MW of wind generation currently online in Idaho Power's service territory, new PURPA wind projects are subject to integration charges for Tier 3 as listed in the table above. A nine percent reduction is applied to the avoided cost rates, capped at a maximum of \$6.50. The \$6.50 cap generally prevails in the latter years of non-levelized contracts during summer and winter seasons when avoided cost rates are highest.

#### Idaho Power's Perceptions of Problems with the Existing Wind Integration Charges

Idaho Power believes that the costs associated with wind integration are currently under collected. They are assessed on a percentage basis of various avoided cost rates, which the Company claims results in an inequitable contribution of the various wind QFs to the cost of integrating wind on the system. Idaho Power contends that the use of the percentage of avoided cost rates really has no relation to actual costs of the additional reserves necessary to integrate variable and intermittent resources on the system. Additionally, setting the amount of wind integration charge for the entire duration of the power sales agreement assures further under collection of integration costs as those costs rise. This under collection from existing wind QFs, the Company states, results in an additional allocation to new wind QFs—the incremental difference required to make the Company's customers whole, and remain indifferent to the addition of PURPA QF generation that substantially increases the wind integration cost for new wind projects.

Although the results of the 2013 Updated Wind Integration Study differ somewhat from the results of the 2007 Study, the results are similar enough that Staff believes the 2013 Study corroborates the earlier study. Differences between the results can primarily be attributed to differences in fuel and market prices, and the addition of the Langley Gulch plant. Based upon the results of the 2013 Updated Study, Staff believes that the costs currently being assessed for wind integration no longer represent the actual costs to integrate wind and should be revised.

The current method of computing wind integration costs as a percentage of avoided costs, and the \$6.50 per MWh cap, were outcomes of negotiation and compromise in a settlement process. The current integration costs and the method under which they are applied was never expected to be a precise quantification of the costs, but was instead adopted as a reasonable approximation of costs that are somewhat difficult to determine. Staff agrees with Idaho Power that actual integration costs will not necessarily vary as a percentage of avoided cost rates. Consequently, Staff supports establishing wind integration charges at specific dollar figures that increase with wind penetration level.

Integration costs will invariably change over time as a variety of other changes occur. For example, integration costs will likely increase as more intermittent resources are added to the utility's system, as fuel costs increase, and as electric market prices increase. On the other hand, downward pressure on integration costs will occur as forecasting improves, as shorter real-time markets develop (e.g., intra-hour trading, 15-minute scheduling, five minute dispatch), as energy imbalance markets develop, and as new technologies evolve, including energy storage. Not only is it difficult to accurately determine integration costs now, but it is even more difficult to predict what those costs may be over the entire duration of a 20-year PURPA contract.

#### 2013 Wind Integration Study Report

In support of its Application requesting the Commission update Idaho Power's wind integration charge, the Company presents its current Wind Integration Study Report ("2013 Study") as Exhibit No.1 to the testimony of Philip DeVol ("DeVol Testimony"), filed contemporaneously with the Company's Application. The 2013 Study was also filed with Idaho Power's 2011 Integrated Resource Plan ("IRP") Update on February 14, 2013, in Case No. IPC-E-11-11.

The 2013 Study analyzed three different levels of wind penetration: 800 MW; 1,000 MW; and 1,200 MW. The 2013 Study, which was completed in February 2013, was conducted using inputs from the 2011 IRP. Results of the analysis showed integration costs of \$8.06/MWh,

\$13.06/MWh, and \$19.01/MWh, respectively, if all wind integration costs were spread equally across all wind generation. Once the 2013 IRP was completed and filed, the 2013 Study was updated with 2013 IRP inputs for the load forecast, Mid-C electric market prices, natural gas price forecast, and the coal price forecast ("Updated 2013 Study"). The results of the Updated 2013 Study are that integration costs went down to \$6.83/MWh, \$10.22/MWh, and \$14.22/MWh, respectively, if all wind integration costs were spread equally across all wind generation. Idaho Power states that based upon the very conservative assumption that all of the current 678 MW of wind generation capacity were being assessed the cap of \$6.50/MWh (which they are not) and that they would continue to be assessed just \$6.50/MWh in the future, the incremental costs of wind integration at the three different levels for new wind generators would be \$8.67/MWh at 800 MW, \$24.00/MWh at 1,000 MW, and \$34.70/MWh at 1,200 MW. The Updated 2013 Study results are summarized in the table below:

Updated 2013 Study (using 2013 IRP ing
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Penetration Level	800MW	1,000 MW	1,200 MW
Allocated Equally to all Wind (/MWh)	\$6.83	\$10.22	\$14.22
Incremental Cost Allocation (/MWh)	\$8.67	\$24.00	\$34.70

#### Idaho Power's Request to Modify the Wind Integration Charge

In testimony filed with its Application, Idaho Power discusses three separate methods from which the Commission could choose to implement to account for wind integration costs in avoided cost rates. Those methods are identified as follows:

- 1. Maintaining Current Allocation;
- 2. Current Allocation with Integration Tariff; and
- 3. Equitable Allocation of Costs.

The Company proposes two overall changes, which have been incorporated into each of the methods discussed in Mr. Youngblood's testimony, to address the collection of wind integration costs. First, Idaho Power proposes to abandon the use of percentage of avoided cost rate allocation and instead allocate a fixed amount based upon penetration level. Second, the Company proposes to decouple the wind integration charge from the avoided cost rate contained in the

power sales agreement and instead have wind integration costs assessed as a stand-alone tariff charge.

#### **Maintaining Current Allocation**

Idaho Power's first proposed method to implement integration charges maintains the existing structure but only updates the rates and penetration levels. As proposed by the Company, the three tiers and applicable charges are listed in the table below:

	Amount of Wind Online	Integration Charge
Tier 1	800 to 999 MW	\$8.67/MWh
Tier 2	1000 MW to 1199 MW	\$24.00/MWh
Tier 3	1200 MW and above	\$34.70/MWh

Note that under this method, the Company proposes that the integration charges be set based on the assumption that all incremental integration costs be recovered from new wind projects.

Staff supports this proposal because it maintains the use of three tiers and specifies costs within each tier rather than percentages of avoided cost rates. The primary advantage to this proposal is that it would provide certainty to wind project developers because integration charges would remain fixed throughout the duration of the contract.

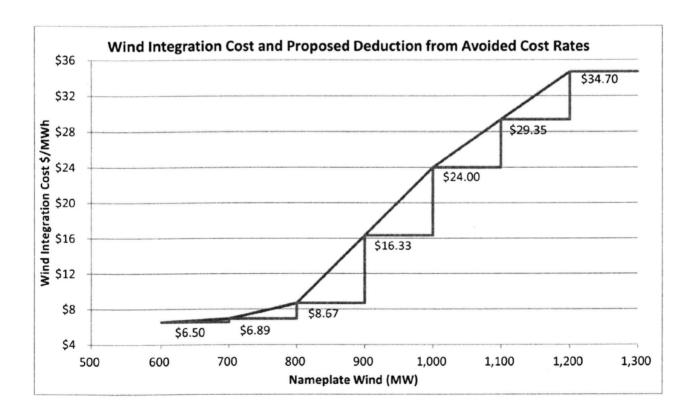
The primary disadvantage to this approach, however, is that new projects would bear an increasingly larger share of integration costs because as intermittent energy is added to the utility's system, without the aid of new technology and/or storage options, the costs to integrate wind sharply increase. Pursuant to Order No. 33030 existing contracts will not be impacted. However, Idaho Power's most recent integration study shows that integration costs have increased since its prior study and these costs could continue to climb. In order to maintain ratepayer neutrality as required by PURPA, Staff believes that applying updated wind integration charges prospectively reasonably results in an increasing burden for each wind project because the intermittent energy produced creates an increasing burden for the utility. Therefore, Staff believes that new projects should be responsible for the full incremental cost of integration.

Staff does, however, propose one minor change. Staff recommends that Tier 1 charges be imposed immediately, beginning at 678 MW, the current wind penetration level, rather than at 800 MW as proposed by the Company. Staff sees no reason to apply the current percentage-based integration charges to new project capacity between 678 MW and 800 MW, when the 2013

Updated Study confirms that wind integration charges are not an accurate representation of the utility's actual costs. Even though the 2013 Updated Study did not compute an integration charge for penetration levels below 800 MW, nonetheless, Staff believes the charges for the 800 MW penetration level are close enough to be reasonably applied above the current 678 MW penetration level.

#### **Current Allocation with Integration Tariff**

The second alternative method proposed by Idaho Power—Current Allocation with Integration Tariff—is a slight modification to the first method discussed above. Under this method, rather than embedding the integration charges as part of the avoided cost prices in the contract rates, as is currently done, the Company would implement a new integration charge tariff which would identify the integration charges at the respective levels, separately from the power sales agreement. Under this method, the current deduction of \$6.50/MWh would be used until total nameplate wind generation reached 700 MW. Once 700 MW is reached, the wind integration charge would be increased to \$6.89/MWh. As shown in the graph below, subsequent increases would occur as each incremental 100 MW of wind generation is added.



The primary benefit, Staff believes, to a tariff-based integration charge is that it would allow integration charges to be changed over time as the costs of integration charge. As discussed previously, Staff believes there are factors that could cause integration charges to either increase or decrease in the future. At this time, it is nearly impossible to know how those factors will develop and consequently how integration costs might change in the future. If the Commission adopts this proposal, Staff would expect that integration charges would be adjusted in the future based on the results of periodic new wind integration studies, rather than in the exact increments depicted in the above graph. Staff assumes the figures depicted in the graph are intended to be for illustrative purposes only.

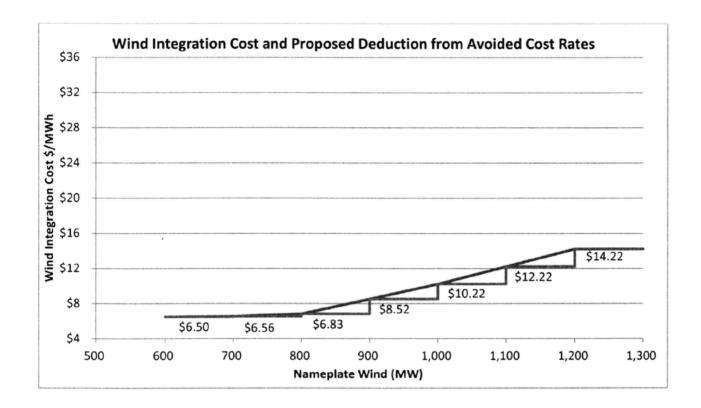
The primary disadvantage to a tariff-based approach, however, is that it would not be possible to know with certainty what the charges will be in the future for any specific project. Historically, QF developers have desired certainty in knowing what the project's revenue stream will be for the duration of the contract term. Opposition to adjustable avoided cost rates has led to the current methodology under which there are no adjustable rate components. Making integration charges subject to change over the course of a long-term contract, while it may more accurately reflect actual integration charges, presents uncertainty that Staff believes QFs would find unacceptable.

If, however, the Commission chooses to adopt a tariff-based approach as proposed by Idaho Power, Staff recommends that QFs be given a choice at the time of contract signature as to whether they want an integration charge that remains fixed for the entire duration of the contract or whether they want an integration charge specified by tariff.

## **Equitable Allocation of Costs**

The third method proposed by Idaho Power —Equitable Allocation of Costs—would spread the integration costs equitably across all PURPA wind generators. In this way, all wind generators would be sharing equitably in the current costs of integrating wind onto the Company's system. In addition, this would have the effect of reducing the charge per MWh and not unreasonably burden new wind generation coming on-line. Under this method all existing wind generation would be classified as "Type I" and all new wind generation would be classified as "Type II" under the draft tariff. Both would start at the current deduction of \$6.50/MWh, but Type I projects, who are already assessed a wind integration charge, would have a net charge of zero. In a similar manner to the previous method discussed, the corresponding wind integration charge

escalates with each 100 MW of penetration. Type II projects would pay the full integration charge, where Type I projects would pay the net difference between the full charge and the embedded cap of \$6.50/MWh. Type II charges are shown in the graph below. Type I charges would be \$6.50 less than that depicted on the graph below.



Staff believes that the Commission's decision in Order No. 33030 would preclude this method from being adopted. Under this method, existing projects could be subject to increases in the wind integration charges already included in their contracts. Order No. 33030 clearly states that "any Commission approved modifications to Idaho Power's wind integration rates and charges will only apply prospectively – to new contracts as they are entered into by the parties and submitted to the Commission for approval." Order No. 33030 at 8.

#### RECOMMENDATIONS

Staff recommends the following:

1. That the Commission accept the results from Idaho Power's Updated 2013 Wind Integration Study and adopt the charges based on the assumption that all incremental integration costs be recovered from new wind projects as indicated below:

	Amount of Wind Online	Integration Charge
Tier 1	678 to 999 MW	\$8.67/MWh
Tier 2	1000 MW to 1199 MW	\$24.00/MWh
Tier 3	1200 MW and above	\$34.70/MWh

However, Staff recommends that Tier 1 charges be imposed immediately, beginning at 678 MW, the current wind penetration level, rather than at 800 MW as proposed by the Company.

2. That the Commission not adopt Idaho Power's proposal for a tariff-based wind integration charge. However, if the Commission wishes to adopt a wind integration tariff, QFs should be allowed to voluntarily choose a tariff-based rate or a rate to be specified in the contract that remains fixed for the life of the agreement.

Respectfully submitted this  $2^{NL}$  day of July 2014.

Kristine A. Sasser

Deputy Attorney General

Technical Staff: Rick Sterling Yao Yin

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## CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT I HAVE THIS 2<sup>nd</sup> DAY OF JULY 2014, SERVED THE FOREGOING **COMMENTS OF THE COMMISSION STAFF**, IN CASE NO. IPC-E-13-22, BY MAILING A COPY THEREOF, POSTAGE PREPAID, TO THE FOLLOWING:

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