

## BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

<b>IN THE MATTER OF IDAHO POWER</b> <b>COMPANY'S APPLICATION TO UPDATE</b> <b>SOLAR INTEGRATION RATES AND</b> <b>CHARGES</b>	) ) ) ) )	<b>CASE NO. IPC-E-16-11</b>  <b>ORDER NO. 33563</b>
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On May 6, 2016, Idaho Power Company filed an Application asking the Commission for authority to update its solar integration rates and charges consistent with its completed 2016 Solar Integration Study. The Commission issued a Notice of Application and Notice of Modified Procedure, setting a deadline for comments and for the Company's reply, if any. Idaho Conservation League (ICL) petitioned for and was granted intervention. ICL and Staff submitted timely written comments, to which Idaho Power responded with a timely reply. The Commission now grants Idaho Power's Application as discussed below.

### BACKGROUND

Electric utilities that integrate solar generation into their systems incur costs based on the amount of solar generation integrated, and on the other (non-solar) resources used to provide needed operating reserves. Generally, the average cost of integrating solar generation increases as the electric system's nameplate solar generation increases. Where the utility has contracted to purchase solar power under the Public Utility Regulatory Policies Act (PURPA<sup>1</sup>), the rates for such power must not exceed the utility's "avoided cost" – what the utility would have incurred had it generated or acquired the power elsewhere. If solar integration costs are not calculated and properly allocated to these PURPA project developers, those costs will be impermissibly passed onto utility customers in the avoided costs.

In February 2015, the Commission approved a settlement stipulation which implemented solar integration rates and charges for Idaho Power based on the Company's first solar integration study, completed in 2014. The solar integration rates and charges were set forth in a new tariff Schedule 87, Variable Generation Integration Charges, at the incremental cost of solar integration for each 100 megawatts (MW) of solar nameplate penetration. The settlement stipulation provided that Idaho Power would initiate a second solar integration study within the next year, using a Technical Review Committee (TRC).

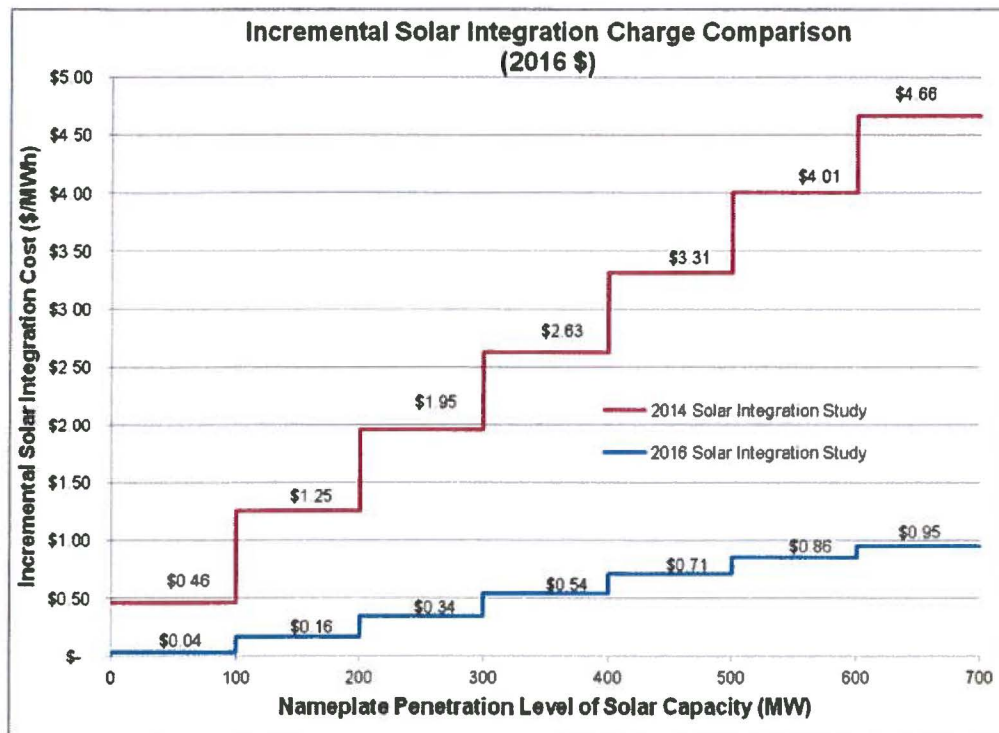
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<sup>1</sup> 16 U.S.C. § 824a-3.

The TRC was comprised of Idaho Public Utilities Commission (IPUC) Staff, Public Utility Commission of Oregon Staff, personnel from Idaho Power, and a technical expert designated by each of the parties to the settlement stipulation (including ICL). Representatives from Renewable Northwest (RN) and National Renewable Energy Laboratory also participated in the TRC. Application at 2. The TRC developed and finalized a study plan and was involved throughout the development of the Study Report, completed April 2016. Staff noted that TRC participants were collaborative and made good faith efforts to achieve accurate and reasonable results, free from bias. Staff Comments at 6.

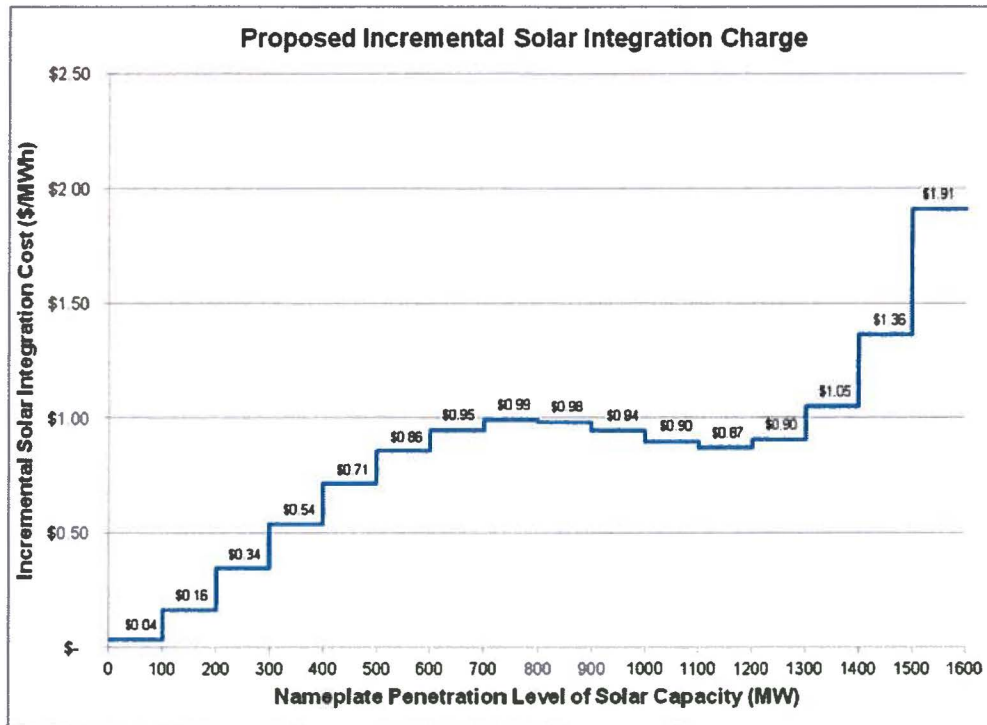
### 2016 SOLAR INTEGRATION STUDY AND REPORT

As a result of the 2016 Solar Integration Study, Idaho Power's Application proposed updated incremental integration costs at each 100 MW of solar generation penetration, extending out to 1,600 MW. Application at 5. The costs determined in the 2016 Study are substantially less than those from the 2014 solar integration study, as shown in the following graph.



*Id.*

The 100 MW incremental costs of solar integration to 1,600 MW are shown in this chart:



*Id.* at 6.

Exhibit 4 to Mr. Youngblood’s testimony contains tables that would, if approved, replace the current Schedule 87, Sheets 87-9 through 87-15, and create new Sheets 87-16 through 87-24. *Id.* The charges in Schedule 87 are amounts to be deducted from avoided cost rates beginning the year a project comes on-line, and based on the nameplate capacity penetration level of solar generation at the proposed project’s scheduled operation date. *Id.* Each 100 MW increment or penetration level has its own table, set forth in Schedule 87, which identifies the levelized integration charge and the non-levelized stream of integration charge amounts listed by year. *Id.*

The Company asked that the Commission approve the updates to the solar integration costs in Schedule 87, Variable Generation Integration Charges, as set forth in Mr. Youngblood’s Exhibit 4, based on the 2016 Study.

### STAFF COMMENTS

Staff observed that the 2016 Study focused almost exclusively on within-hour impacts caused by the variability and uncertainty of solar generation. However, Staff believes “there could also be costs in the greater-than-hour-ahead time frame that are not being captured, either as an integration cost or as an avoided cost.” Staff Comments at 6. Staff suggested that

the Company “more closely examine whether all costs in all time frames are being captured,” and how and where they are captured. *Id.* at 7.

Also, Staff suggested that costs due to variability and uncertainty should “arguably be captured as an avoided cost.” *Id.* However, Staff noted that the method for computing small facilities’ published avoided cost rates (surrogate avoided resource or SAR methodology) does not account for intermittency at any time interval. *Id.* Staff observed that intermittency is also not modeled in AURORA, the forecasting tool used in calculating avoided cost rates for larger projects (Integrated Resource Plan or IRP methodology). *Id.*

Staff recommended approving Idaho Power’s proposed solar integration charges with the following clarifications to Schedule 87 to address how rates in the tariff are to be applied:

1. Clarify that the tariff rates will be included in QF contracts at the time those contracts are executed and, once added, shall remain unchanged in the contract for its duration; subsequent tariff rate changes only apply to new contracts at the time those contracts are executed.
2. Clarify that the tariff rates will be applied to all PURPA contracts, both SAR-based and IRP-based.

#### **COMMENTS OF IDAHO CONSERVATION LEAGUE (ICL) AND RENEWABLE NORTHWEST (RN)**

RN joined in intervenor ICL’s written comments. ICL and RN (which both participated in the TRC) stated that they “appreciate and support the changes that Idaho Power made to the methodology in the 2016 Solar Integration Study.” ICL/RN Comments at 1. “In general, we support updating the Schedule 87 rates to reflect the results of the 2016 Study.” *Id.* However, ICL and RN proposed it would be more “fair and accurate” to apply “an average integration rate to all projects,” rather than an incremental approach, as used by Idaho Power. *Id.* at 2. ICL and RN also proposed that Idaho Power “expand on the EIM sensitivity [from the 2016 Study] through a complete evaluation in the 2017 Integrated Resource Plan of the costs and benefits of joining the EIM.” *Id.* at 3-4. Finally, ICL and RN recommended that Idaho Power “apply the improved methodology and analysis used in the 2016 Solar Integration Study to update the wind integration study.” *Id.* at 4.

#### **IDAHO POWER’S REPLY**

The Company agreed with Staff’s proposed clarifications to its Schedule 87, and submitted a proposed revised Schedule 87, Sheet No. 1, attached to its reply. The Company

joined with Staff, ICL, and RN in requesting that the Commission approve its solar integration charges as proposed in Schedule 87. However, the Company does not agree with ICL and RN's other recommendations and analysis.

### **DISCUSSION AND FINDINGS**

The Commission has jurisdiction over this matter under *Idaho Code* § 61-307 and PURPA. We have reviewed the record, including the comments of Staff, ICL and RN, as well as Idaho Power's reply. We find the Company's proposed solar integration charges to be reasonable and hereby approve the Company's revised Schedule 87. We further find it just and reasonable for integration rates to be determined at the time of contracting and remain fixed for the duration of the contract. These rates should be applied to both SAR and IRP-based PURPA contracts. We direct the Company to consider the following for future study updates:

1. The potential impacts of Idaho Power joining the Western Energy Imbalance Market.
2. Transmission changes, such as the Boardman to Hemingway project.
3. Resource changes or additions, including demand response.
4. Energy storage.
5. Self-provided integration services, to the extent qualifying facilities (QFs) can and are willing to provide them.
6. Future changes in curtailment of QFs, through policy changes or contractual arrangements.
7. The combined effects of new solar and new wind.
8. Changes in gas/fuel prices, actual build-out of wind and solar, other changes in study assumptions.
9. The effects of distributed and community solar as it develops.
10. The cost of new highly-flexible resources, and who should pay for them.
11. Methods for easy updates to models used to perform solar and wind integration studies, to ensure Schedule 87 rates are updated periodically.

ICL and RN asserted that the Company's incremental cost approach incorrectly assumes that newer/older projects inherently bring higher incremental integration costs, and that older/earlier projects are less costly to integrate. ICL/RN Comments at 2. According to ICL and RN, "subsequent projects may have features that reduce integration costs." *Id.* The two also argued that applying an average integration rate would provide "an incentive to reduce integration costs and treat[ ] each project in the cumulative solar capacity fairly." *Id.* Recognizing that "adopting a full average integration cost approach may not be feasible at this time," ICL and RN recommended that Idaho Power be directed to "revise Schedule 87 to apply an average cost approach to all future projects" only. *Id.* at 3.

We are disinclined to adopt ICL and RN's proposal to employ an average integration cost approach. Averaging costs would work to the detriment of early projects and to the benefit of later developers. We find no reasonable basis to adopt such an approach. We find that the incremental costs used in the existing and revised Schedule 87 more accurately align costs incurred by the Company to integrate intermittent resources with the sources of those costs.

ICL and RN also recommended that the Commission "direct Idaho Power to expand on the EIM sensitivity [from the 2016 Study] through a complete evaluation in the 2017 Integrated Resource Plan [IRP] of the costs and benefits of joining the EIM." ICL/RN Comments at 3-4. Idaho Power responded that "[a]ny benefit or cost associated with EIM participation as related to integration costs of intermittent resources would be more appropriately included in future integration cost studies, not the IRP planning process." Reply at 5-6. We find that this case is not the appropriate forum to address requirements for the Company's 2017 IRP. The parties' concerns are more appropriate for discussion within the TRC or the IRP advisory committee (IRPAC). We therefore decline to adopt ICL and RN's suggestion.

Finally, ICL and RN recommended that Idaho Power "apply the improved methodology and analysis used in the 2016 Solar Integration Study to update the wind integration study." ICL/RN Comments at 4. The Company disagreed. Idaho Power noted that, "Qualitatively, the Study data suggests solar is more predictable than wind generation connected to Idaho Power's system." Reply at 6. We find there are notable differences between wind and solar power generation. These differences make it impracticable to apply the methodology and analysis from the 2016 Solar Integration Study to a wind integration study update. Accordingly, we reject ICL and RN's invitation to apply the Company's solar study to wind.




## **ORDER**

IT IS HEREBY ORDERED that Idaho Power's Application to update its solar integration rates and charges is granted. The Revised Schedule 87 filed with the Commission on July 7, 2016, is approved.

IT IS FURTHER ORDERED that requests by ICL and RN are denied, consistent with the Commission's findings above.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. See *Idaho Code* § 61-626.

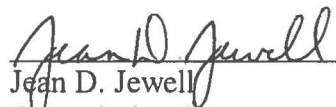
DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 9<sup>th</sup>  
day of August 2016.

  
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PAUL KJELLANDER, PRESIDENT

  
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KRISTINE RAPER, COMMISSIONER

  
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ERIC ANDERSON, COMMISSIONER

ATTEST:

  
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Jean D. Jewell  
Commission Secretary

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