May 5, 2017

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Public Utility Commission of Oregon
P.O. Box 1088
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Re:  UM 1716 - In the Matter of PUBLIC UTILITY COMMISSION OF OREGON,
     Investigation to Determine the Resource Value of Solar

Attention Filing Center:

Attached for filing in the above-referenced docket is an electronic copy of Idaho Power Company’s Opening Testimony of Michael Youngblood.

Please contact this office with any questions.

Very truly yours,

Wendy McIndoo
Office Manager

Attachment
BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

UM 1716

In the Matter of
PUBLIC UTILITY COMMISSION OF
OREGON,
Investigation to Determine the Resource
Value of Solar.

IDAHO POWER COMPANY
OPENING TESTIMONY
OF
MICHAEL J. YOUNGBLOOD

May 5, 2017
I. INTRODUCTION

Q. Please state your name and business address.
A. My name is Michael J. Youngblood and my business address is 1221 West Idaho Street, Boise, Idaho 83702.

Q. By whom are you employed and in what capacity?
A. I am employed by Idaho Power Company (Idaho Power or Company) as the Manager of Regulatory Projects in the Regulatory Affairs Department.

Q. Are you the same Michael J Youngblood that filed Response Testimony and Reply Testimony in this matter?
A. Yes. On June 30, 2016, I provided Response Testimony in this docket, and on July 21, 2016, I provided Reply Testimony.

Q. What is the purpose of your testimony in this matter?
A. Following the hearing held on January 31, 2017, the Commission issued Order No. 17-085 which directed the parties to file two additional rounds of testimony. As stated in the Order, the purpose of the additional testimony is three-fold: 1) to provide the opportunity to respond to new issues raised at the hearing; 2) to allow the opportunity to respond to the Straw Proposal attached to Order 17-085; and 3) to include a discussion of how to proceed with Phase II\(^1\). My testimony is intended to respond to these three directives.

Q. How is your testimony organized?
A. In general, Idaho Power’s position on Staff’s proposed methodology to determine the resource value of solar (RVOS) is unchanged, and therefore, adopts the Company’s testimony and briefs already filed in this docket. The Company agrees with the Commission’s conclusion following the hearing held on January 31, 2017, that there

\(^1\) Order No. 15-296 at 2 (Sep 28, 2015) (“The first phase will examine elements and methodologies. The second phase will examine values for each utility using those adopted methodologies.”).
is broad consensus on numerous issues. Therefore, I have structured my testimony
to address the issues provided in the Straw Proposal, and address the tentative
resolutions on elements and methodologies for each element. With regard to specific
issues raised at the hearing that are of concern to Idaho Power, I will address those
during my discussion of the particular element. I will conclude my testimony with Idaho
Power’s proposed direction of how to proceed with Phase II of this docket.

Q. Please describe the Company’s response to each element of the Commission’s
RVOS Straw Proposal.

A. In the testimony below, I will provide Idaho Power’s comment on each of the RVOS
Straw Proposal elements:

- Energy: Idaho Power agrees with the Commission’s proposal to estimate the
  marginal avoided cost of energy using the methods currently used to determine
  avoided costs for a qualifying facility (QF). For Idaho Power, the methodology
  used to determine QF avoided costs is the incremental cost integrated resource
  planning methodology (ICIRP). This is the methodology approved by both this
  Commission and the Idaho Public Utilities Commission (IPUC) for determining the
  value of energy used to calculate avoided cost rates for QFs that exceed the
  standard rate eligibility cap. The ICIRP methodology has been in place for Idaho
  Power since approved for use through a contested case proceeding before the
  IPUC in December 2012\(^2\) and was recently affirmed and reauthorized for the
  Company’s use in Oregon in Order No. 16-174.\(^3\) The methodology compares the
  hourly generation profile of a solar resource to the utility’s resource stack being

\(^2\) In the Matter of the Commission’s Review of PURPA QF Contract Provisions Including the
Surrogate Avoided Resource (SAR) and Integrated Resource Planning (IRP) Methodologies for
Calculating Avoided Cost Rates, Case No. GNR-E-11-03, Order No. 32697 (Dec. 18, 2012).
\(^3\) In the Matter, of the Public Utility Commission of Oregon, Investigation into Qualifying Facility
Contracting and Pricing, UM 1610, Order No. 16-174 (May 13, 2106).
used to serve load in each hour, and assigns the cost of the utility’s highest cost
displaceable resource operating during the hours that the solar resource provides
generation. The Company proposes to use the ICIRP methodology because it will
provide a consistent determination of the value of a solar resource on an hourly
basis for all such resources on the Company’s system.

The Company understands the Commission’s rationale for directing the
utilities to model a range of hydro conditions to forecast energy prices. The
Company agrees that while solar generation may provide extra value to utility
customers in years of low hydropower generation, it is also true that solar
generation will provide less value to utility customers in years of abundant hydro
generation. For that reason, Idaho Power agrees with Staff that inputs to the model
should reflect a full range of possible hydro conditions. However, multiple runs
over numerous hydro conditions may be very cumbersome, and may not provide
additional information. The Company recommends using a median hydro
condition, in a similar way as the Company would value potential resources
through its long-range integrated resource planning (IRP) process. The median
hydro condition reflects a balance between increases or decreases in the value of
solar generation that may exist in times of high or the low hydro generation. The
Company believes that using a median hydro condition, as it does in its long range
planning process, would result in an appropriate estimate for the marginal avoided
cost of energy.

- **Generation Capacity:** In determining the generation capacity element, Idaho
  Power agrees with the Commission’s Straw Proposal to use the
  sufficiency/deficiency demarcation as determined in the Company’s most recent
  IRP. However, the Company believes that when a utility is resource sufficient, the
capacity value should be zero. As the Company has stated in previous testimony,
there is no value for additional capacity during times when the Company is already capacity sufficient, and therefore there would be no deferrable capacity investments.

Idaho Power does not agree with the Commission’s proposal to determine the capacity value in a manner that is consistent with the standard QF avoided cost guidelines. The standard QF avoided cost methodology is a prescriptive methodology used to determine the value of capacity based upon a surrogate or proxy resource, currently the value of the capacity provided by a combined cycle combustion turbine (CCCT). It is used in determining the price the utility is required to pay for a solar QF resource developed under the rules of the Public Utilities Regulatory Act of 1978 (PURPA), regardless of the need for that resource as determined by the Company’s IRP. This value may not reflect of the marginal avoided cost of building and maintaining the lowest net cost generation capacity resource, which the Commission states is the definition of the generation capacity element. Idaho Power continues to propose that the determination of the value of generation capacity, consistent with using the IRP sufficiency/deficiency demarcation, should use the same methodology for estimating capacity contribution as used in its IRP, and to use the methodology from UM 1719 to estimate distributed solar generation’s contribution to peak.

- Transmission and Distribution Capacity: Idaho Power agrees with the Commission’s Straw Proposal to include a system-wide average of the avoided or deferred costs of expanding, replacing, or upgrading Transmission and Distribution (T&D) infrastructure attributable to incremental solar penetration, for growth-related investments in Oregon service areas. Idaho Power notes however, that the value may vary significantly among the utilities, and may vary within a particular utility’s system. Because Idaho Power’s system is primarily rural, adding solar in
many areas may not result in deferred T&D investments. Investments caused by high growth in one part of the utility’s system may not suggest that investments may be deferred in low-growth areas.

- **Line Losses:** Idaho Power agrees with the inclusion of line losses in the Commission’s Straw Proposal. The Company appreciates the Commission’s recognition that line loss estimates should reflect the hours solar PV systems are generating electricity to more adequately represent a utility’s seasonal loss variability over a year.

- **Administration:** The Company agrees that each utility should develop estimates of the direct, incremental costs of administering solar PV programs including staff, software, interconnection, and other utility costs, and will do so in Phase II of this docket.

- **Market Price Response:** As the Company has stated in previous testimony and affirmed during the hearing on January 31, 2017, the Company has not determined a market price response resulting from the impact of new solar generation. The Company remains unclear as to how the magnitude and quantification of a Mid-C market price response to new solar generation would be determined, at least regarding smaller distributed solar generation as identified in this docket. The Company agrees that this should be the topic of a separate technical workshop. The Company does note however, that the quantification and consideration of a market price response element for Idaho Power may produce a result of increased net costs as lower market energy prices would generally lead to decreased surplus sales values. The Company agrees with the Commission’s assessment that the estimates of the impacts of incremental solar generation should be on both wholesale purchases and sales.

- **Renewable Portfolio Standard Compliance:** As the Company has stated in
previous testimony, the State of Idaho does not have an RPS requirement and, while Idaho Power is subject to the Oregon RPS, its obligations under that statute are not applicable until 2025, at which time the Company anticipates already being in compliance with existing resources. The Company appreciates and agrees with the Commission’s recognition of these facts and its proposal that Idaho Power is exempt from this element.

- **Integration and Ancillary Services:** Idaho Power has Commission approved wind and solar integration costs in both its Idaho and Oregon jurisdictions and would anticipate using these costs in the RVOS methodology. With respect to ancillary services, the Company has stated in previous testimony that it does not consider solar resources to provide ancillary services, and views these components as strictly a cost. The Company supports the Commission’s proposal to assign a value of zero to the ancillary service benefits of increased solar PV penetration, and will work with Staff and other parties in technical workshops to be held in the future.

- **Hedge Value:** The Company does not believe that conducting a workshop to examine methodologies to quantify a hedge value is appropriate. Idaho Power’s hedging strategy is a prescribed process contained within the Risk Management Policy Manual, and was approved by the IPUC in 2002. The Risk Management Policy Manual includes Idaho Power’s risk management objectives as well as the policies, guidelines, controls and internal procedures established to protect against adverse movements in power supply costs and to ensure that the power cost adjustment balance does not move beyond a tolerance level acceptable to

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customers. The Company’s hedging strategy does not vary based upon the addition of distributed generation solar resources, and hedge value is not an item Idaho Power evaluates for new resources. Therefore, if the Commission proposes a hedge value element for the RVOS, in Idaho Power case, the Company would propose that the hedge value be zero.

- **Environmental Compliance:** This element is intended to represent the avoided cost of complying with existing and anticipated environmental standards. Even though Idaho Power maintains that any potential future costs are not costs that are currently being avoided by a new solar resource, the Company supports the Commission’s Straw Proposal to use the carbon regulation assumptions from their IRP. In the Company’s 2015 IRP, Idaho Power developed multiple sensitivities for the EPA’s proposed regulation for regulating CO₂ emissions from existing generating sources under CAA Section 111(d). The multiple sensitivities were a reflection of the considerable uncertainty related to the stipulations of the finalized regulation scheduled to be passed in the summer of 2015. To date, that regulation is still not finalized. Idaho Power’s customers are not currently bearing any costs related to carbon emissions. Throughout previous testimony, Idaho Power has maintained that any potential future compliance costs that are not yet being incurred and cannot be fully determined do not constitute costs that are avoided by a new solar resource, and therefore, the value of this element for Idaho Power should be zero.

- **Security, reliability, and reserves:** Idaho Power does not agree with the Commission’s proposal to include this element in the RVOS model. This element was originally recommended based on the potential application of solar generation coupled with energy storage or advanced inverters, or in potential microgrid applications of solar. Yet, as the Company discussed in prior testimony, most
mass-market solar resources in Oregon are not installed with these capabilities, and there are no known customer microgrid systems in Oregon. Because the analysis of mass-market systems is the intended application of the RVOS model, Idaho Power maintains that it is inappropriate to include an element to reflect potential benefits not actually provided by those systems. However, with that being said, the Company agrees that if this element is added, the appropriate value at this time is zero. The Company will participate in subsequent technical workshops to quantify the value of benefits, if they exist and as suggested by the Commission, considering only the value provided to each utility’s system, and are not already captured in energy, capacity and ancillary services.

Q. Is Idaho Power in general agreement with the Commission’s Straw Proposal?

A. Yes. As I have discussed above, Idaho Power generally agrees with the elements included in the Straw Proposal provided by the Commission and attached with Order No. 17-085. The methodology represents a reasonable response to the Commission’s directive to establish an RVOS methodology applicable to small mass-market solar generation. Moreover, the Company is comfortable with the algebraic formulas that Staff and Mr. Arne Olson of Energy and Environmental Economics have proposed to use in the model.

In addition, Idaho Power supports the adoption of a model that is flexible and adaptable to the use of more or less granular data, and the proposed model accomplishes this objective. Idaho Power also reiterates its earlier statements that the model was designed for a limited purpose, and should be reevaluated before it is applied in other contexts. As Mr. Olson explains, the model was developed to produce a “25-year marginal, levelized value for a generic, small-scale solar resource installed...
in 2016.\textsuperscript{5} The Company agrees with Mr. Olson that the model was developed for a specific application—determining the RVOS for small-scale, mass-market resources.\textsuperscript{6} If the Commission is to apply the RVOS model to a different set of resources, such as utility scale solar or community solar, different inputs to the model may need to be considered.

Without knowing the exact application for the RVOS, the Company remains concerned about the potential application of the RVOS model to net metering, especially with regard to evaluating the level of cost shifting, if any, resulting from solar installations under each utility’s net metering service. While the RVOS model may be appropriate for modeling a long term levelized cost, it does not reflect embedded costs. Customer rates are designed to collect embedded costs of providing service, and the RVOS model evaluates marginal costs, and in some instances future costs that may not yet exist. The application of the RVOS methodology in combination with cost shift evaluations of net metering may lead to an inequitable and/or inappropriate assignment of costs and benefits among customers.

Q. Does Idaho Power have a recommendation on how to proceed with Phase II of this docket?

A. Yes. The Commission opened this docket on January 27, 2015, to examine the resource value of solar. The purpose of this Phase I of the proceeding was to adopt a methodology that the utilities will use to calculate the RVOS. It was understood that the utilities would apply the methodology to calculate a specific RVOS for their individual systems in a future phase.

Idaho Power believes that the next step is to for each utility to make a filing that uses its own data to populate the model and develop a utility-specific RVOS. These

\textsuperscript{5} Staff/400, Olson/4 (emphasis in original).
\textsuperscript{6} Staff/400, Olson/4.
filings should be made as compliance filings, in utility-specific dockets opened to allow a full investigation. Once the compliance filings are made, other parties could then file responses, which should establish those areas where there may be agreement and identify those areas that will need additional proceedings, such as elements for which the Commission has proposed additional workshops in its Straw Proposal. Workshops/Technical Conferences as proposed in the Straw Proposal could then be conducted either in the utility-specific dockets, or, where applicable to all utilities, in this docket.

Q. **Does this conclude your testimony?**

A. Yes, it does.