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March 18, 2019

VIA ELECTRONIC FILING

Attention: Filing Center
Public Utility Commission of Oregon
201 High Street SE, Suite 100
P.O. Box 1088
Salem, Oregon 97308-1088

Re: Docket No. UM 1911
Resource Value of Solar – Idaho Power Company’s Order No. 19-022
Compliance Filing

Dear Filing Center:

In compliance with Order No. 19-022, Idaho Power Company (“Idaho Power” or “Company”) hereby submits for filing its revised resource value of solar (“RVOS”) calculation. In Order No. 19-022, the Public Utility Commission of Oregon (“Commission”) directed Idaho Power to revise its RVOS component values for energy, transmission and distribution (“T&D”) capacity deferral, administration, market price response (“MPR”), and renewable portfolio standard (“RPS”) compliance by March 18, 2019. Idaho Power was ordered to revise these values and to file a revised utility-scale RVOS calculation consistent with the Commission’s direction provided in Order No. 19-022.

I. REVISED RVOS CALCULATIONS

With this filing, Idaho Power is submitting two versions of the RVOS workbook as part of the Company’s workpapers. The first workbook is the Company’s revised RVOS calculation for a standard size project (0.41 megawatts (“MW”). The second workbook presents the Company’s RVOS calculation for a utility-scale project (60 MW).¹ Idaho

¹ The standard size project of 0.41 MW is representative of the Oregon Solar Photovoltaic (“PV”) Pilot Program. For utility-scale, Idaho Power was directed by the Commission to use a proxy resource of 50 MW or larger.

Power’s revised RVOS calculation, using the Commission’s prescribed methodology, results in a net levelized RVOS of \$42.73 per megawatt-hour (“MWh”) for a standard size project and \$47.16 per MWh for a utility-scale project. The table below presents the quantification of each element of the RVOS calculation and the net levelized RVOS for both a standard size project and a utility-scale project.

Element	Value Standard Size Project (\$/MWh Real Levelized)	Value Utility-Scale Project (\$/MWh Real Levelized)
1. Energy	\$ 28.77	\$ 27.72
2. Generation Capacity	10.55	16.12
3. T&D Capacity	6.03	6.07
4. Line Losses	2.33	2.25
5. Administration	(5.80)	(5.80)
6. Integration	(0.57)	(0.57)
7. Market Price Response	(0.02)	(0.02)
8. Hedge Value	1.44	1.39
9. Environmental Compliance	0.00	0.00
10. RPS Compliance	0.00	0.00
11. Grid Services	0.00	0.00
Net Levelized RVOS	\$ 42.73	\$ 47.16

The revised RVOS calculation incorporates methodological revisions to the energy, T&D capacity deferral, administration, MPR, and RPS compliance components, as directed by the Commission. While the calculation of all other elements remains unchanged from the Company’s prior RVOS calculation,² this update does reflect the latest update for all RVOS components, such as market prices,³ as directed by the Commission.⁴ Each of the RVOS elements subject to methodological revisions are discussed in detail in the following sections.

II. ENERGY

For the energy component, the Commission adopted Idaho Power’s use of market prices utilized for its standard avoided cost prices. However, the Commission ordered the Company to revise its energy price shape using PacifiCorp’s approach,⁵ which uses uncapped Energy Imbalance Market (“EIM”) data to develop a 12-month by 24-hour price

² Filed with the Company’s Closing Brief on August 9, 2018.

³ Idaho Power has provided an update price curve as a confidential workpaper.

⁴ *In the Matter of Idaho Power Company Resource Value of Solar*, Docket No. UM 1911, Order No. 19-022, page 4 (January 22, 2019).

⁵ *Id.* at 2, page 8.

shape. The Commission requires the use of three years of EIM data to develop the price shape but notes that where three years of data is not available, utilities are permitted to use less.

Under PacifiCorp's approach, hourly shaping is based on EIM Load Aggregation Point ("LAP") prices.⁶ The market price shape is a "scalar" based on the average market prices in a month during a given hour, relative to the average market price in that month for all hours. Using this approach, Idaho Power compiled hourly EIM prices for the Idaho Power LAP ("IPC LAP") for April 4, 2018, through February 28, 2019. Because Idaho Power's participation in the Western EIM began on April 4, 2018, the Company has less than a year's worth of pricing data available. To estimate prices for April 1 to April 3, the Company calculated average hourly prices using April 4, 2018, through April 30, 2018, hourly prices. For the month of March, the Company estimated average hourly prices using average hourly prices for the months of April and May, which have similar spring season operating characteristics as March.

Using the hourly EIM price data for the IPC LAP, the Company developed a 12-month by 24-hour shape by dividing the average market price for each hour of a given month by the average market price in that month for all hours. For example, the average IPC LAP price during hour-ending 17 in May is \$18.16 per MWh and the average IPC LAP price during all hours in May is \$18.76 per MWh, resulting in a scalar for hour-ending 17 in May of 96.8 percent. Utilizing this methodology, Idaho Power's 25-year levelized value for the energy component is \$28.77 per MWh. The Company has included the 12-month by 24-hour energy price shape as part of its workpapers.

III. T&D CAPACITY DEFERRAL

For T&D capacity deferral, the Commission adopted Commission Staff's ("Staff") recommendation for this value.⁷ As noted in Order No. 19-022, "Staff endorsed [Portland General Electric Company's] approach; which used its [Marginal Cost of Service Study] to derive T&D deferral values. Staff recommends that all three utilities use [Portland General Electric Company's] method."⁸

Under Portland General Electric Company's ("PGE") approach, PGE used its most recent Marginal Cost of Service Study ("MCOSS") as the basis for its deferred distribution value. With respect to transmission, PGE's method was described as follows: "For transmission, PGE derives values from its 2018 cost of Long-term Firm Point-to-Point

⁶ *In the Matter of PacifiCorp, dba Pacific Power, Resource Value of Solar*, Docket No. UM 1910, PAC/100, MacNeil/13, lines 5-10 (November 30, 2017).

⁷ *Id.* at 2, page 13.

⁸ *Id.* at 2, page 12.

transmission service with Scheduling, System Control, and Dispatch service from [Bonneville Power Administration]; which is used in PGE's Schedule 201 avoided cost pricing."⁹

In accordance with this approach, Idaho Power derived the value for deferred distribution capacity from its MCOSS prepared for the Company's last general rate case (Docket No. UE 233, Idaho Power's 2011 test year general rate case). The deferred distribution value is estimated to be the avoided distribution substation costs, in dollars per kilowatt- ("kW") year. The 2011 test year value for deferred distribution, escalated to 2019 dollars, is \$12.99 per kW-year. The 25-year levelized value for the T&D capacity deferral component is \$6.03 per MWh. The Company has provided its 2011 MCOSS schedule for distribution substation costs with the accompanying workpapers.

With regard to transmission, Idaho Power continues to maintain that the deferred transmission value for its RVOS in the Company's Oregon jurisdiction should be \$0.00. The Oregon portion of Idaho Power's system is winter peaking, at approximately 8:00 a.m. Because of lack of sunlight at the time of the Oregon peak, installed solar PV generation cannot meaningfully decrease Oregon system peak load and therefore will not defer transmission infrastructure investments necessary to meet peak load.

However, in compliance with the Commission's order and Staff's recommendation to use PGE's approach, the Company calculated a deferred transmission value of \$31.25 per kW-year, derived from its current approved Open Access Transmission Tariff ("OATT") for firm point-to-point transmission service provided under Rate Schedule 7, consistent with the methodology used by PGE. The Company has provided its OATT Rate Schedule 7 with the accompanying workpapers.

Idaho Power is actively working on developing a proposal for the locational valuation of T&D capacity deferral values, as requested by the Commission, and intends to present updated values by July 18, 2019.

IV. ADMINISTRATION

For the administration component of the RVOS, the Commission ordered Idaho Power to develop an initial value consistent with the Company's net metering program administrative costs. The Commission noted that this initial value will act as a proxy only, and that Idaho Power is to update this value on a program-by-program basis for any proceeding in which the RVOS will be applied. Furthermore, the process and content of program-specific administration values should be reviewed and developed in those individual program applications.

⁹ *In the Matter of Portland General Electric Company Resource Value of Solar*, Docket No. UM 1912, Order No. 19-023, page 12 (January 22, 2019).

Idaho Power's cost to administer net metering programs primarily consists of labor expenses associated with program administrative staff, customer account management staff, and meter technicians. Idaho Power employs administrative staff strictly dedicated to the net metering program. These administrative employees are responsible for processing applications, customer inquiries, scheduling inspections, reporting, and other tasks. In addition, a portion of customer account management and meter technician labor expenses are included in the cost to administer net metering. Customer account management staff are responsible for setting up net metering accounts and net metering billing matters, while meter technicians perform initial meter inspections and triennial inspections. The cost to administer net metering also includes non-labor expenses, such as materials and vehicle expenses. Costs associated with additions, modifications, or upgrades to the Company's system necessary to interconnect customer generation facilities are excluded as these costs are directly assigned to those customers.

The cost to administer net metering was allocated to the Oregon jurisdiction based on the ratio of Oregon net metering participants to total net metering participants¹⁰ and then reduced by the net metering application fees received from Oregon customers.

The total cost as described above was then divided by an estimate of annual energy generated by Oregon net metering systems. Because nearly all of Idaho Power's net metering customer usage is measured on a net basis, the Company is unable to record the total amount of energy customers' facilities are generating. To estimate annual solar generated by Oregon net metering systems, the Company applied an estimated capacity factor to actual solar net metering capacity installed and on-line. The capacity factor was developed from actual generation data for participants in the Oregon Solar PV Pilot Program, which should be materially consistent with Oregon solar net metering systems.

The value for the administration component is \$5.80 per MWh. The Company has provided the supporting workpapers for the administration cost component with this filing.

V. MARKET PRICE RESPONSE

For the MPR component of the RVOS, the Commission ordered Idaho Power to adopt the first of two options presented by Energy+Environmental Economics ("E3") and set the elasticity value in the middle of the E3-provided range at negative 0.0015 percent, which resulted in a revised 25-year levelized value for the MPR component of negative \$0.02 per MWh. The negative value reflects that during daylight hours, the Company is a net exporter of energy into the market.

¹⁰ The costs associated with meter technicians were allocated to the Oregon jurisdiction based on Oregon-specific work orders.

VI. RPS COMPLIANCE

The Commission initially directed utilities to assign a zero value for RPS Compliance (Order No. 17-357). The zero value was intended to be a placeholder until it could be revisited and assigned a methodology before the end of Phase II in Docket No. UM 1716.¹¹ In Order No. 19-022, the Commission adopted Staff's recommendation to value the RPS compliance component "according to the \$/MWh cost from utilities' [RPS compliance] reports."¹² The Commission notes that Idaho Power does not produce RPS compliance reports and will not do so until the Company begins active compliance with the RPS standard in 2025. Until such time Idaho Power is ordered to use the anticipated cost of future RPS compliance, as discussed in its most recently acknowledged Integrated Resource Plan ("IRP") filings, to derive this value.

Idaho Power's 2017 IRP acknowledges the Company's RPS requirement beginning in 2025 and estimates that the Company will already be in compliance with the 2025 RPS requirements without incurring additional costs. Therefore, based upon the Company's most recent IRP, the RPS Compliance component of the RVOS is \$0.00 per MWh.

VII. UTILITY-SCALE RVOS

The Commission determined that the submission of a utility-scale RVOS as a reference will be valuable for illustrating the avoided costs to a utility in acquiring solar through distributed projects, instead of utility-scale developments. To that end, the Commission directed Idaho Power to file a revised utility-scale RVOS calculation that uses the most recently acknowledged IRP or IRP Update for cost estimates of the proxy resource and the capacity deficiency year, and to use a proxy resource of 50 MW or larger that is interconnected at the transmission level of the system.¹³

For the revised utility-scale RVOS calculation, Idaho Power referenced its 2017 IRP, which identifies a 30 MW single-axis tracking project as a representative size for utility-scale solar projects the Company might contemplate in the future. The 2017 IRP estimates a 30-year levelized cost of capacity for the 30 MW utility-scale solar project of approximately \$168 per kW-year.¹⁴ Idaho Power also referenced its 2017 IRP for the first capacity deficiency year, 2026, which is used as the start year for the capacity value in the RVOS.

¹¹ *In the Matter of Public Utility Commission of Oregon, Investigation to Determine the Resource Value of Solar*, Docket No. UM 1716, Order No. 17-357, page 13 (September 15, 2017).

¹² *Id.* at 2, page 21.

¹³ *Id.* at 2, pages 22-23.

¹⁴ Idaho Power Company's 2017 Integrated Resource Plan, Technical Appendix C, page 76.

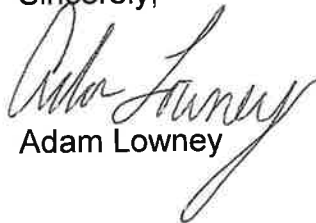
The utility-scale RVOS calculation utilizes a representative 12-month by 24-hour solar profile submitted by a 15 MW Oregon solar Public Utility Regulatory Policies Act of 1978 ("PURPA") project currently under contract. Each value within the 12-month by 24-hour solar profile was quadrupled to represent a 60 MW project. The solar profile used for the utility-scale RVOS calculation has been included with the Company's workpapers. The resulting levelized RVOS calculation for a utility-scale solar proxy is \$47.16 per MWh.

VIII. SUMMARY

As discussed above, Idaho Power's revised RVOS calculations incorporate methodological revisions to the energy, T&D capacity deferral, administration, MPR, and RPS compliance components, as directed by the Commission. With this filing, the Company has provided two RVOS workbooks and supporting workpapers.

Per Order No. 19-022, the Company will submit another compliance filing in this docket by July 18, 2019. In the July 2019 filing, Idaho Power will address further revisions to the T&D capacity deferral value, as well as revisions to the generation capacity and line loss components consistent with the Commission's direction.

Sincerely,



Adam Lowney

AL:csb
Enclosures

1 **CERTIFICATE OF SERVICE**

2 I hereby certify that I served a true and correct copy of the foregoing document in
3 Docket UM 1911 on the following named person(s) on the date indicated below by email
4 addressed to said person(s) at his or her last-known address(es) indicated below.

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20 DATED: March 18, 2019

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23 Wendy McIndoo
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