

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 74

In the Matter of

IDAHO POWER COMPANY,

2019 Integrated Resource Plan.

Renewable Northwest's
Opening Comments

April 2, 2020

I. INTRODUCTION

Renewable Northwest thanks the Oregon Public Utility Commission (the "OPUC" or the "Commission") and OPUC Staff ("Staff") for this opportunity to comment on Idaho Power Company's ("Idaho Power") 2019 Integrated Resource Plan ("IRP"). In this time of broad system transformation in the energy sector spurred by changing resource economics, technological advances, and the imperative to act now to avoid the worst impacts of climate change, we write primarily to support the significant advances and improvements evident in Idaho Power's 2019 IRP.

First, we discuss and support Idaho Power's new approach to portfolio modeling, which results in a more robust preferred portfolio and action plan. We highlight some ways that Idaho Power's new modeling approach appears to be helping the company to modernize its system, integrate renewables, and reduce greenhouse gas emissions, all while maintaining low costs and high reliability. Next, we comment on Idaho Power's approach to transmission and market access, and in particular its inclusion of the Boardman-to-Hemingway ("B2H") transmission line in its preferred portfolio and action plan. We note that new transmission builds can help better integrate Idaho Power into the regional market and allow market purchases of low-cost west-side renewable energy. Finally, we suggest a few avenues for potential improvement, including the possibility of further accelerating the transition to a modern, low-carbon system in Idaho Power's next IRP, the recommendation that Idaho Power to explore options that could displace the 2030 gas peaker showing up in its modeling, the importance of including robust stakeholder participation in any further VER integration study process, and a recommendation that Idaho Power include an explicit analysis of expiring federal tax credits.

Most importantly, though, we appreciate that Idaho Power’s IRP reflects its “goal to provide 100 percent clean energy by 2045.”¹ Idaho Power’s strategy of achieving this goal by adding renewables, maintaining “the company’s existing backbone of nearly 50 percent hydropower, as well as continuing to reduce carbon emissions and exiting participation in its share of three coal plants,” will serve as a key element of the region’s transition to a modern, low-carbon electricity system.²

II. COMMENTS

1. General Support for Modeling Approach

Renewable Northwest appreciates Idaho Power’s use of modeling tools to endogenously produce optimized portfolios rather than analyzing human-created baseline portfolios as in previous IRP cycles. Specifically, in the 2019 IRP, Idaho Power reports that it “used the LTCE [long-term capacity expansion] capability of AURORA to produce WECC-optimized portfolios under various future conditions for natural gas prices and carbon costs.”³ Only then, “[t]o ensure the AURORA-produced WECC-optimized portfolios provide the least-cost, least-risk future specific to the company’s customers,” did the company undertake human-driven modifications: “a subset of top-performing WECC portfolios was manually adjusted with the objective of further reducing portfolio costs specific to the Idaho Power system.”⁴ More specifically, “Idaho Power selected a subset of ... portfolios to determine if additional resource modifications—primarily accelerated coal retirements—could further reduce costs and help achieve Idaho Power’s green commitments more quickly.”⁵

In contrast, to develop its 2017 IRP, Idaho Power first identified “two key resource actions: 1) selective catalytic reduction (SCR) investments required for Jim Bridger units 1 and 2 by 2022 and 2021, respectively, and 2) the B2H transmission line” and then “portfolios were formulated such that the effects of these two resource actions, or factors, could be isolated.”⁶

We agree with the company’s discussion of how using AURORA to identify optimized portfolios constituted an improvement over the company’s 2017 methodology:

¹ IRP at 11.

² *Id.*

³ *Id.* at 97.

⁴ *Id.*

⁵ *Id.* at 9.

⁶ Idaho Power 2017 IRP at 6.

Using the AURORA LTCE process in portfolio design has some improvements compared to the prior resource selection methodology. The AURORA portfolio development process is more precise in using the defined resource characteristics and established quantitative requirements associated with those resources. Examples include increasing regulation requirements with solar generation additions or maintaining a peak hour planning margin and applying hourly regulating reserve requirements in the economic selection and timing of resource additions and retirements. Additionally, the LTCE process allowed the company and stakeholders to evaluate a relatively large number of portfolios relative to prior IRPs. In 2017, for example, the IRP examined 12 portfolios that were manually selected. However, in the 2019 IRP, the company evaluated 44 total portfolios, 24 of which were developed by the LTCE model, and 20 that were developed during the manual refinement process.⁷

The IRP points out some additional benefits of this new modeling approach, including the model's ability to "select to retire existing generation units, as well as build resources based on economics absent a defined capacity need."⁸

Using AURORA to produce optimized portfolios appears to have generated additional benefits, specifically helping Idaho Power to add renewables, achieve carbon emission reductions, reduce customer costs, and maintain industry-standard reliability. At a high level,

The results of the 2019 IRP portfolio development show that additional VERs [variable energy resources, i.e. renewables] are selected in a majority of LTCE portfolios, and many of the portfolios show new solar resources selected and coal units being retired. This indicates the model has sufficient regulating reserves to economically retire a reserve-contributing coal unit while adding new solar resources.⁹

While the above blockquote applies to a number of AURORA-generated profiles, Idaho Power's preferred portfolio -- P16(4), an AURORA-generated profile manually adjusted to benefit from additional accelerated coal retirements -- performs particularly well on the carbon, cost, and reliability metrics. On carbon, Figure 9.8 shows P16(4) performing best among the manually-adjusted profiles, which themselves achieve savings over the AURORA-generated

⁷ IRP at 99.

⁸ *Id.* at 9.

⁹ *Id.* at 23.

profiles due to accelerated coal retirements.¹⁰ On cost, Idaho Power reports that “[u]nder the Planning Gas and Planning Carbon scenario, P16(4) has the lowest NPV value of the 24 WECC-optimized portfolios at \$5,996,478,000.”¹¹ And on reliability, all AURORA-generated profiles are subject to “planning margins and regulating reserve constraints,”¹² and Idaho Power specifically subjected its preferred portfolio to additional testing and found that “results of the loss-of-load analysis show Idaho Power’s system will exceed the industry standard of less than one event per 10 years and will be resource adequate through 2025, the year prior to the next major resource addition.”¹³

Again, we appreciate Idaho Power’s willingness to explore new, sophisticated techniques for identifying greener and more diverse portfolios to meet Idaho Power’s needs at the least cost and least risk to customers in a time of dramatic system change.

2. Transmission and Market Access

Renewable Northwest also appreciates Idaho Power’s conclusion that additional transmission builds can “provid[e] Idaho Power access to clean and low-cost energy in the Pacific Northwest wholesale electric market.”¹⁴ Idaho Power points to a number of benefits from expanded access to the Pacific Northwest electricity market, including “[i]mproved system reliability and resiliency” and increased “[f]lexibility to integrate renewable resources and more efficiently implement advanced market tools, such as the EIM.”¹⁵ The company elaborates “that expanded transmission interconnection to the Pacific Northwest (i.e., B2H) provides access to a market with capacity for meeting its summer load needs and abundant low-cost energy, and that expanded transmission is critical in a future with automated energy markets such as the Western EIM and high penetrations of ... renewable resources.”¹⁶

This expanded market access is particularly important given Idaho Power’s accelerating exit from coal-fired generation. Idaho Power explains that its “preferred portfolio includes ... exit from its share of North Valmy Unit 1 by year-end 2019, Boardman by year-end 2020, a Jim Bridger unit during 2022, North Valmy Unit 2 by year-end 2025, and a second Jim Bridger unit during 2026” as well as the remaining Bridger Units by 2030. Market purchases are a common resource for Oregon utilities to help meet capacity needs and maintain system reliability, and

¹⁰ *Id.* at 117.

¹¹ *Id.* at 111.

¹² *Id.* at 98.

¹³ *Id.* at 120.

¹⁴ *Id.* at 5.

¹⁵ *Id.* at 68.

¹⁶ *Id.* at 123.

Idaho Power suggests that expanded market access is particularly important as it retires coal units; the company reports that it considers “B2H as a necessary resource in enabling the proposed coal-unit exits.”¹⁷

New transmission builds can bring additional benefits beyond Idaho Power’s system as well; for example, the company notes that enabling expanded market access via new transmission builds can also “[r]educ[e] capacity limitations on the regional transmission system as demands on the system continue to grow.”¹⁸

We appreciate Idaho Power’s focus on expanded market access in order to integrate renewables on its own system, draw low-cost power from western renewables, and facilitate accelerated coal retirements. In future IRP cycles, we would appreciate seeing more granularity regarding the characteristics of market purchases as a resource, and in particular how well market availability aligns with Idaho Power’s expected system peaks and capacity needs. In the end, we also believe that Idaho Power has persuasively tied its transmission proposal to its “goal to provide 100-percent clean energy by 2045 without compromising the company’s commitment to reliability and affordability.”¹⁹

3. Suggestions for Additional Improvements

Renewable Northwest offers two brief suggestions for additional improvements in Idaho Power’s next IRP.

First, we recommend that Idaho Power continue assessing economic opportunities to accelerate fossil retirements and renewable resource additions. As resource economics evolve and both renewable and storage resource prices continue to fall, the value proposition for replacing fossil generation with zero-carbon energy resources is strong.²⁰ Additional analysis allowing for accelerated resource retirements and zero-carbon resource additions may well present new opportunities to transition more rapidly to a 100-percent clean future.

Second, we appreciate Idaho Power’s messaging about the importance of attaining 100% clean power and the increasing diversity of resources appearing in its modeling results; we encourage

¹⁷ *Id.* at 126.

¹⁸ *Id.*

¹⁹ *Id.* at 68.

²⁰ *See, e.g.*, Portland General Electric 2019 Integrated Resource Plan at 115 (describing resource economics as a driver of renewable procurement); PacifiCorp 2019 Integrated Resource Plan at 289 (explaining that “the portfolio development modeling performed in the 2019 IRP shows that new renewable resource needs are driven primarily by economics and reliability”).

the company to maintain that open mind when assessing potential resources to meet the flexible capacity needs that are currently projected to be met by a 300 MW gas combined cycle combustion turbine plant in 2030. Again looking to other Oregon utilities' IRPs, PacifiCorp reported that "while [its] preferred portfolio includes new natural gas peaking capacity beginning 2026, this falls outside of the 2019 IRP action plan window, which provides time for PacifiCorp to continue to evaluate whether non-emitting capacity resources can be used to supply the flexibility necessary to maintain long-term system reliability."²¹ We encourage Idaho Power similarly to evaluate whether non-emitting capacity resources can meet the company's needs rather than new gas, which may imperil the company's ability to meet its clean-power goals and Oregon carbon policy.²²

Third, we appreciate Idaho Power's commitment "to build on the advancements made by the 2019 IRP analysis of a unified VER integration cost first identified in the 2018 VER Study," the company's nod to "the collaboration of a Technical Review Committee as part of an updated integration study," and the inclusion of additional VER integration study in the action plan.²³ Our only suggestion on this item is that Idaho Power ensure that stakeholder participation and collaboration are robust, as stronger participation by knowledgeable parties will help to ensure accurate study results and facilitate greater integration of new, cost-effective renewable resources.

Fourth and finally, while we appreciate that Idaho Power is likely benefiting from expiring federal tax credits in bringing new solar onto its system, we share Staff's observation that "Idaho Power's 2019 IRP does not explicitly mention the Production Tax Credit (PTC) for wind or the Investment Tax Credit (ITC) for solar" and support Staff's recommendation that "[i]f the Company has not considered them, then an additional capacity expansion analysis should be performed that considers the impact these substantial tax credits may have on resource selection in the AURORA long-term capacity expansion model."²⁴

²¹ PacifiCorp 2019 Integrated Resource Plan at 7.

²² See, e.g., Staff's Opening Comments at 17 (noting that "additional natural gas-fired resources seem out-of-step with the Company's stated goal to provide "100% clean energy" by 2045" and that "[s]uch additions are also inconsistent with Oregon Governor Kate Brown's Executive Order No. 20-04, which establishes targets of reducing greenhouse gas emissions by at least 45 percent below 1990 levels by 2035, and at least 80 percent below 1990 levels by 2050 across multiple industry sectors, including utility portfolios").

²³ IRP at 23, 127.

²⁴ Staff's Opening Comments at 9.

III. CONCLUSION

Renewable Northwest again thanks the Commission for this opportunity to comment on Idaho Power’s 2019 IRP. Rather than summarize our earlier comments, we take this opportunity to highlight two elements of the conclusion to Idaho Power’s IRP that stand out not only as key to this IRP but also as themes regionwide: First, “[t]he cost competitiveness of PV solar is [a] notable theme of the 2019 IRP”²⁵; and second, “[t]he 2019 IRP indicates favorable economics associated with Idaho Power’s exit from five of seven coal-fired generating units by the end of 2026, and exit from the remaining two units at the Jim Bridger facility by the end of the 2020s.”

²⁶ We appreciate Idaho Power’s efforts to pursue a 100% clean-energy goal in this IRP and look forward to working with the company to accelerate its progress toward meeting that goal in this and future IRPs.

Respectfully submitted this 2nd day of April, 2020,

/s/ Max Greene

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²⁵ IRP at 128.

²⁶ *Id.*