

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

LC 78

In the Matter of

IDAHO POWER COMPANY,

2021 Integrated Resource Plan.

Renewable Northwest's
Final Comments

September 8, 2022

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") 2021 Integrated Resource Plan ("IRP"). Renewable Northwest has actively participated in Idaho Power's 2021 IRP stakeholder process and the Commission workshop held in August 2022. Renewable Northwest is encouraged by the resources selected in the preferred portfolio, which includes 700 MW wind, 1405 MW solar, and 1685 MW battery storage resources. Owing to the company's updated portfolio modeling, the preferred resources selected portray the value of clean, non-emitting capacity resources for meeting the needs of Idaho Power customers. In these brief comments, we express our general support for acknowledgement of the 2021 IRP and provide some recommendations for the company's next IRP that would ensure that Idaho Power is procuring least-cost resources to meet its future capacity needs.

II. COMMENTS

In our previous comments, we discussed analytical improvements reflected in Idaho Power's 2021 IRP and our general support for the plan. We also raised an issue regarding the compatibility of the reliability metric selected for the 2021 IRP with Power Council's Loss of Load Probability metric; that issue has since been addressed by Idaho Power in an offline discussion with the Power Council. We will not repeat those discussions here but do reiterate our support for acknowledgement, along with the following additional recommendations.

As discussed previously in our initial comments¹, we continue to recommend that Idaho Power study the cost-effectiveness of the coal to gas conversion of Jim Bridger Units 1 & 2 to gas-fired

¹ Renewable Northwest Initial Comments. Oregon PUC. LC-78.
<https://edocs.puc.state.or.us/efdocs/HAC/lc78hac161651.pdf>

generation resources in 2024. This techno-economic study could be conducted as part of the 2023 IRP and would provide the Commission and stakeholders with visibility regarding the total portfolio costs with and without coal to gas conversion. One of the aspects of this study would be to conduct the portfolio modeling runs using the capacity values of thermal resources produced from evaluating factors such as correlated outages, fuel availability risks and updated fuel supply curves. In the 2021 IRP, Idaho Power's portfolio modeling assumed that gas-powered power plants have capacity values of over 90%. The Astrape Consulting study that was mentioned in our initial comments shows that the traditional valuation method can overstate the capacity value of conventional power sources by over 20% because these methods are incapable of accounting for correlated, weather-dependent outages.² The report finds that the ELCC values for a combined cycle gas turbine ("CCGT") for summer and winter conditions are 84% and 76.1% respectively. Using a variability adjustment factor to account for correlated outages due to weather, fuel supply risks and other outage conditions would be a more efficient way to evaluate the capacity value of thermal resources.

As per details shared by Idaho Power, the converted Bridger units would primarily be used for peak demand hours. It is important to note here that these peak demand hours would coincide with hours when the probability of correlated, weather-related outages is maximum. Thus, assuming these natural-gas fired units would be able to deliver power when needed is risky for Idaho Power customers. On the other hand, Idaho Power's capacity accreditation analysis, not assumptions, shows that the ELCC value of future storage projects was 87.5% for 4-hour, 97% for 8-hour and 97% for solar paired with 4-hour storage making them much better resources especially in the conditions when Idaho Power is assumed to hit peak demand i.e. summer evenings. Compared to an optimistic assumption of 85% for CCGT, these resources are more reliable for Idaho Power customers.

On the economic side, investing in gas-fired resources also runs the risk of cost overruns due to the exorbitantly high price of gas currently. Even during spring, U.S. gas prices surged, with the benchmark futures contract rising to a 13-year high of \$8.74 per million British thermal units, at a time when that fuel's price tends to dip due to lack of demand in the spring. Given global geopolitics and other factors that are out of reach for Idaho Power, investing in natural gas power plants would create financial risks for Idaho Power customers for a generation resource that, according to Idaho Power, "would be used primarily for flexibility and reliability purposes,"³ which means it would typically be operated at a lower capacity factor than other resources.

² Getting Capacity Right: How Current Methods Overvalue Conventional Power Sources
<https://www.aee.net/aee-reports/getting-capacity-right-how-current-methods-overvalue-conventional-power-sources>

³ Idaho Power 2021 Integrated Resource Plan. Ch. 10 Modeling Analysis. Operational Considerations.

Thus, we recommend that the Commission acknowledge the 2021 IRP with the conditions that Idaho Power evaluate the effective capacity value of thermal resources and then study the cost-effectiveness of the Jim Bridger coal to gas conversion in the 2023 IRP. The results of this study could be shared with the Commission and stakeholders in a public workshop.

III. CONCLUSION

Renewable Northwest again thanks the Commission for this opportunity to comment on Idaho Power's 2021 IRP. We generally support acknowledgment of the 2021 IRP with the following recommendations that could be framed as conditions for Idaho Power to consider in the 2023 IRP:

1. Renewable Northwest recommends Idaho Power model capacity values of thermal resources using ELCC methodology with a variability adjustment factor which accounts for thermal derates and correlated outages due to weather-related conditions instead of using fixed EFOR assumptions to calculate capacity value in upcoming IRPs.
2. Renewable Northwest recommends that Idaho Power conduct a holistic techno-economic study (including updated price curves and the economic impacts of IRA) of the proposed coal to gas conversion compared to procuring clean & non-emitting capacity resources as part of the 2023 IRP and present the detailed results to the Commission in a workshop.

Respectfully submitted this 8th day of September, 2022,

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