BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S 2021 INTEGRATED RESOURCE PLAN	))))))	**CASE NO. IPC-E-21-43** **ORDER NO. 35603**

On December 30, 2021, Idaho Power Company ("Company" or "Idaho Power") filed an Application requesting that the Commission acknowledge the Company's 2021 Integrated Resource Plan ("IRP"). The IRP is the Company's biennial report on its plans to adequately and reliably serve its customers over a period of 20 years through a least-cost, least-risk, resource mix. On January 19, 2022, the Company filed an update regarding the Boardman to Hemingway ("B2H") transmission line project.

The Company's 2021 IRP evaluated the 20-year planning period from 2021-2040. The Company represented that its peak load is forecasted to grow 1.4% annually during this 20-year planning period for both average energy demand and peak-hour demand. The Company stated that during the 20-year planning period, the Company expected its approximate 600,000 customers served to increase by approximately 40%. The Company represented that the 20-year plan includes the addition of 3,790 megawatts ("MW") of new non-carbon emitting resources including wind, solar, and storage; new transmission; and 540 MW of demand-side management ("DSM") resources.

The Company indicated that the primary goals of its 2021 IRP were to: (1) identify sufficient resources to reliably serve the growing demand for energy within Idaho Power's service area throughout the 20-year planning period; (2) ensure the selected resource portfolio balances cost and risk, while including environmental considerations; (3) give balanced treatment to both supply-side resources and DSM measures; and (4) involve the public in the planning process in a meaningful way.

The Company represented that it used an improved AURORA long-term capacity expansion approach to model a variety of supply-side and DSM resources and develop several portfolios that would provide customers with the least-cost, least-risk resource mix. The Company stated that it selected a 2021 IRP preferred portfolio based on its modeling and analysis.

The Company represented that its 2021 IRP preferred portfolio contained an Action Plan (2021-2027) that would: (1) add 120 megawatts ("MW") of solar photovoltaic ("PV") capacity in 2022; (2) convert Jim Bridger ("Bridger") units 1 and 2 from coal to natural gas by summer 2024; (3) seek acquisition of significant resources to meet energy and capacity needs in 2023-2027; (4) exit Bridger unit 3 and Valmy unit 2 by year-end 2025; and (5) energize B2H in 2026. The Company stated that it evaluated its Action Plan under four unique future scenarios: (1) rapid electrification; (2) climate change; (3) 100% clean by 2035; and (4) 100% clean by 2045.

The Company represented that the notable differences between the 2019 IRP preferred portfolio and the 2021 IRP preferred portfolio included: an earlier exit from coal, 2028 as opposed to 2030; converting Bridger coal units 1 and 2 to natural gas; approximately 2,100 MW of new wind and solar resources; 1,685 MW of storage compared to 400 MW of storage in the 2019 IRP preferred portfolio; updated demand response ("DR") programs plus 100 MW of additional DR; and additional energy efficiency.

The Company's January 19, 2022, B2H update described the non-binding term sheet entered between the Company, PacifiCorp, and Bonneville Power Administration ("BPA") that addresses ownership roles and operations and asset exchanges. Under the term sheet, the Company would assume BPA's prior ownership interest for a total ownership interest of 45%, with PacifiCorp owning the remaining 55%. The term sheet provided updated details of the capacity rights. The Company and PacifiCorp agreed to construct a B2H midline series capacitor substation. The term sheet also described the ownership and operation of the proposed BPA Longhorn substation and spelled out the agreed upon asset exchange terms for several transmission lines between PacifiCorp and the Company.

On January 21, 2022, the Commission issued a Notice of Filing and established an intervention deadline for interested parties. Order No. 35298. Clean Energy Opportunities for Idaho ("CEO"), Industrial Customers of Idaho Power ("ICIP"), Idaho Conservation League ("ICL"), Micron Technology ("Micron"), Stop B2H Coalition ("STOP"), and Kiki Tidwell intervened in this matter. Order Nos. 35305, 35315, 35319, and 35325. On February 23, 2022, the Commission issued a Notice of Parties. On March 10, 2022, the Commission issued a Notice of Modified Procedure establishing deadlines for interested parties to comment on the Application and for the Company to reply.

COMMENTS

1. Staff Comments

Staff's engagement during the 2021 IRP development cycle and its review of the final report was heavily focused on improvements to the Company's IRP processes, and the need to ensure system reliability. Staff's review for the 2021 IRP included an analysis of the Company's methods to:

- Measure and assure reliability of the Company's system;
- Identify deficits through its Load & Resource Balance;
- Develop resource portfolios and select the least cost least risk preferred portfolio;
- Determine the Company's natural gas forecast;
- Verify assumptions for existing and future supply-side resources;
- Verify assumptions for existing and future demand-side resources;
- Include public participation in the Company's IRP process; and
- Develop the Company's Action Plan.

Staff noted the substantial efforts by the Company to improve its methods and how the Company conducted its public engagement process. Staff believed that, compared to the Second Amended 2019 IRP ("2019 IRP"), the Company's efforts had improved the credibility of the 2021 IRP results.

Staff was encouraged by the progress the Company had made in evaluating its own process and the number of improvements implemented in the 2021 IRP. Staff noted key improvements implemented in the 2021 IRP, which included:

- Implementation of a reliability model integrated with the Company's overall IRP methodology that builds portfolios based on a Loss of Load Expectation ("LOLE") target and provides closed-loop verification that portfolios meet the target over the 20-year planning horizon;
- Determination of the peak-serving capability or Effective Load Carrying Capability ("ELCC") of renewable and time-limited resources using probabilistic best practice processes and based on historical output data;
- The ability of the Long-Term Capacity Expansion ("LTCE") software to cost optimize the mix of resources within the Company's system;

- Methods to verify that the Company's models operated as expected and validated that the model produced cost optimized portfolios for the Company's system; and
- Modifications to the Company's DR programs as a result of its reliability evaluation processes and identification of the hours when capacity needs are the greatest.

Ultimately, Staff recommended that the Commission acknowledge the Company's 2021 IRP, and Staff recommended that the Company address the following in the Company's 2021 IRP Action Plan:

1. Re-evaluate its Action Plan to not include acquisition of specific types of resources where a broadly scoped RFP is appropriate; and
2. Develop a Bridger exit agreement with PacifiCorp that determines potential costs of extending or exiting operations early similar to the exit agreement developed for the closure of Valmy and incorporate those costs into its coal plant exit costs to properly value different exit dates in its 2023 IRP.

Staff also recommended the Company address the following in the 2023 IRP:

1. Incorporate extreme weather events and variability of water availability through its load and resource input assumptions, rather than compensating by changing the LOLE reliability target, which should be set as a matter of public policy;
2. Only include market access backed by firm transmission reservations in its Load and Resource Balance;
3. Evaluate the risks and inaccuracies caused by using a single benchmark year (2023) to determine the LOLE-based Planning Reserve Margin;
4. Provide a comprehensive Quality Assurance plan to verify and validate its models by describing the purpose of each test, how the test was conducted, and the result; and
5. Study the costs and benefits of implementing a flexible resource strategy.

a. Company Reply Comments

With respect to Staff's comments on the Company's 2021 IRP Action Plan, the Company was aligned with Staff's comments that a sufficient set of alternative resources was required to allow for a competitive bidding in the Company's RFP to obtain a reasonable low-cost resource.

With respect to a Bridger exit agreement, the Company reasoned that due to the uncertainty of exit dates at Bridger, the Company included an Action Plan item to plan and coordinate with PacifiCorp and regulators for the exit/closure of Bridger Unit 3 by year-end 2025 with Bridger

Unit 4 following the Action Plan window in 2028. The Company recognized that the negotiation of exit agreement(s) is critical for the 2023 IRP and was working with PacifiCorp, as well as necessary stakeholders, and more details would be shared as available in the 2023 IRP.

2. CEO Comments

CEO congratulated the Company on the improvements recently introduced; however, CEO noted its concern regarding remaining limitations in the software and analytical processes employed to produce the IRP plans. CEO suggested that Idaho Power consider two areas for review before developing the 2023 IRP.

CEO suggested that the Company improve the ability of the software used (whether Aurora or some other product) to analyze effects of battery storage on diurnal market price patterns. CEO reasoned that software system limitations produced questionable data with respect to the forecast Mid-C hourly price spreads that seemed unreasonably large, and the benefit associated with increased access to Mid-C market may have been overvalued.

Further, CEO suggested that the Company improve the method for estimating the present value of various portfolios to remove an existing bias that minimizes out-year costs of inputs that rise in cost over the 20-year forecast period (such as those associated with natural gas prices or carbon emissions charges).

a. Company Reply Comments

The Company, in response, believed that CEO's arguments for lowered daily price spreads resulting from increased energy arbitrage due to battery storage were unsupported and counter to the data presented in the IRP. Further, the Company contended that CEO's conclusion, that portfolios such as those with the B2H transmission line with enhanced access to Mid-C markets might have been materially overvalued in the 2021 IRP analyses, was unsupported conjecture and was counter to the data. The Company concluded that the IRP modeling showed that the next least cost portfolio without B2H under planning conditions was $266 million more expensive on a net present value basis than the Preferred Portfolio with B2H.

Further, Idaho Power disagreed with CEO's belief that the appropriate base for converting future year cost estimates back to a present value required using a discount rate that reflected the customer's cost of short-term funding. The Company believed that using its authorized after-tax weighted average cost of capital ("WACC") to discount the cost of modeled portfolios was

appropriate because that rate best represented the overall long-term cost of capital to the Company in financing its operations.

3. ICL Comments

ICL commented that the 2021 IRP was an incremental improvement in some areas including an improved assessment of the Bridger coal exit dates, an improved assessment of clean energy options, and an improved modeling of Demand-Side Resource Potential. However, ICL noted what it believed to be flaws in the IRP planning process that it believed the Commission should direct Idaho Power to address. Specifically, ICL reasoned that the Bridger conversion was late in the process and used speculative inputs; that the gas price forecast was wrong and Idaho Power's method of analysis lacked the transparency required for rigorous evaluation; and that Idaho Power's 2021 IRP neglected to model the resource capacity of customer-owned solar and storage resources.

ICL concluded that the 2021 IRP represented an incremental improvement from the 2019 IRP, especially in how the Company refined the capacity expansion modeling approach. ICL appreciated Idaho Power's assessment of Bridger closure dates and clean energy options, and the inclusion of alternative future scenarios that allowed for a useful assessment of how to build resource portfolios that addressed probable policy outcomes. However, ICL strongly questioned the Bridger gas conversion assessment due to its last-minute nature and speculative model inputs, as well as Idaho Power's use of a gas price forecast that resulted in already out-of-date prices. ICL urged Idaho Power to model the potential of customer generation for its resource portfolio. ICL recommended the Commission acknowledge these improvements and direct Idaho Power to rectify the flaws in future IRPs.

a. Company Reply Comments

Idaho Power disagreed with ICL's assessment that late consideration of the Bridger conversion limited stakeholder's ability to collaborate with the Company. The Company also contended that ICL's claim of the speculative nature of the modeling inputs to assess the conversion was baseless. Additionally, Idaho Power argued that its gas price forecast methodology was not "secret" as ICL claimed, rather the natural gas price forecast methodology was presented by the forecast vendor directly to the Integrated Resource Plan Advisory Council on March 11, 2021, a follow up discussion was held on June 10, 2021, and an abridged version of the forecast methodology and drivers was provided in the 2021 IRP.

4. Micron Comments

Micron applauded Idaho Power's efforts to collaborate with large customers to acquire renewable resources and encouraged Idaho Power to continue those efforts as the Company transitions away from coal-fired generation. However, Micron cautioned the Commission to ensure Idaho Power planned future resource procurement with an eye toward other large loads that might transition to customer-specific resources to ensure it does not procure excess resources.

While Micron supported Idaho Power's clean energy transition, Micron was also sensitive to the rate impacts that could arise from early retirement of existing thermal generating units and investment in new renewable resources and energy efficiency measures. Micron believed that Idaho Power must ensure that its clean energy transition did not result in excessive rate impacts, and Micron encouraged Idaho Power to continually investigate strategies to mitigate energy transition rate impacts and implement such strategies where appropriate.

a. Company Reply Comments

In response to Micron's comments, Idaho Power noted that through the IRP process, the Company sought to produce a portfolio of resources that represented the least-cost, least-risk path to serving its customers' needs over the planning horizon.

5. Tidwell Comments

Ms. Tidwell argued that the preferred plan IRP put her at risk, as a small Idaho Power ratepayer, to the Company's insufficient planning for the availability and cost of purchased power, and the additional millions of tons of carbon dioxide the Company would emit into the air through its own resource generation. Specifically, Ms. Tidwell commented that the preferred plan left a shortfall gap to achieve the Company's stated 100% by 2045 goal of at least 23% to be achieved between 2041 and 2045. Ms. Tidwell concluded that Idaho Power had not submitted a plan with a prudent path to achieve its own stated goal, a goal that was vital to Idahoans who were living with the effects of climate change.

a. Company Reply Comments

With respect to Ms. Tidwell's concerns, the Company was confident that the selected Preferred Portfolio was the best combination of least cost and least risk.

6. Public Comments

The Commission received twenty-one (21) public comments. Many of the comments were positive concerning Idaho Power's anticipated conversion of Bridger away from coal. However,

many of the comments indicated that conversion to gas was not as preferable as a conversion to other cleaner and renewable options. In contrast, one commenter stressed the importance of maintaining coal operations in Idaho.

COMMISSION DISCUSSION AND FINDINGS

Idaho Power is an electrical corporation and public utility as defined in *Idaho Code* §§ 61-119 and -129, and the Commission has jurisdiction over it and the issues in this case under Title 61 of the Idaho Code, including *Idaho Code* § 61-501. Having reviewed the record, we find that Idaho Power's 2021 Electric IRP satisfies the requirements in the Commission's prior orders. We thus acknowledge that Idaho Power has filed the 2021 IRP. In doing so, we once again reiterate that an IRP is a working document that incorporates many assumptions and projections at a specific point in time. It is a plan, not a blueprint, and by issuing this Order we merely acknowledge *Idaho Power's ongoing planning process*, not the conclusions or results reached through that process. With this Order the Commission does not approve the IRP or any resource acquisitions referenced in it, endorse any particular element in it, opine on Idaho Power's prudence in selecting the IRP's preferred resource portfolio, nor allow or approve any form of cost recovery. The appropriate place to determine the prudency of the IRP or Idaho Power's decision to follow or not follow it, and the validation of predicted performance under the IRP, is a general rate case or other proceeding where the issue is noticed.

The Commission notes the concerns expressed by some parties with the procurement lead time and limitations for resource options to determine the least cost least risk portfolio, and the Commission appreciates the continued engagement of parties in the IRP process. The Commission appreciates Idaho Power's efforts to improve upon the 2021 IRP, and the Commission believes that the best approach is for Idaho Power to continue to work through those expressed concerns, technical issues, and disputes with all parties in the IRP process. The IRP planning process attempts to ensure that Idaho Power is well-positioned to meet the demands of a changing energy sector. While there are inherent limitations in trying to predict a multitude of conditions over the next 20 years, the planning process is worthwhile when Idaho Power strenuously evaluates model inputs, verifies the model logic, and collaborates with engaged stakeholders. Doing so helps ensure that Idaho Power can continue to provide reliable and economical service to its customers as the energy sector evolves.

ORDER

IT IS HEREBY ORDERED that the filing of Idaho Power's 2021 IRP is acknowledged.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date upon this Order regarding any matter decided in 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 and 62-619.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 18th day of November 2022.

ERIC ANDERSON, PRESIDENT

//ABSTAIN TO AVOID CONFLICT//

JOHN CHATBURN, COMMISSIONER

JOHN R. HAMMOND JR., COMMISSIONER

ATTEST:

Jan Noriyuki
Commission Secretary

I:\Legal\ELECTRIC\IPC-E-21-43 IRP\orders\IPCE2143_final_cb.docx