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IDAHO PUBLIC  
UTILITIES COMMISSION

Attorney for the Idaho Conservation League

**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

**IN THE MATTER OF IDAHO ) CASE NO. IPC-E-21-43**  
**POWER COMPANY’S 2021 )**  
**INTEGRATED RESOURCE PLAN ) IDAHO CONSERVATION LEAGUE**  
)  
) **COMMENTS**

The Idaho Conservation League (ICL) submits the following comments on Idaho Power’s 2021 Integrated Resource Plan (IRP).

While the Commission review is limited to the ongoing planning process and not the conclusions reached, we agree that “the planning process is worthwhile when Idaho Power strenuously evaluates model inputs, verifies the model logic, and collaborates with engaged stakeholders.”<sup>1</sup> With a few notable exceptions, the 2021 IRP is an incremental improvement in each of these areas.

**The Good**

*Improved assessment of Bridger coal exit dates*

While we explain our concerns about the proposed gas conversion below, regarding coal burning, we appreciate Idaho Power’s collaborative approach to assessing the future of Bridger. Idaho Power continued to refine the inputs and logic in the Long-Term Capacity Expansion

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<sup>1</sup> Order No 34959 at 26.  
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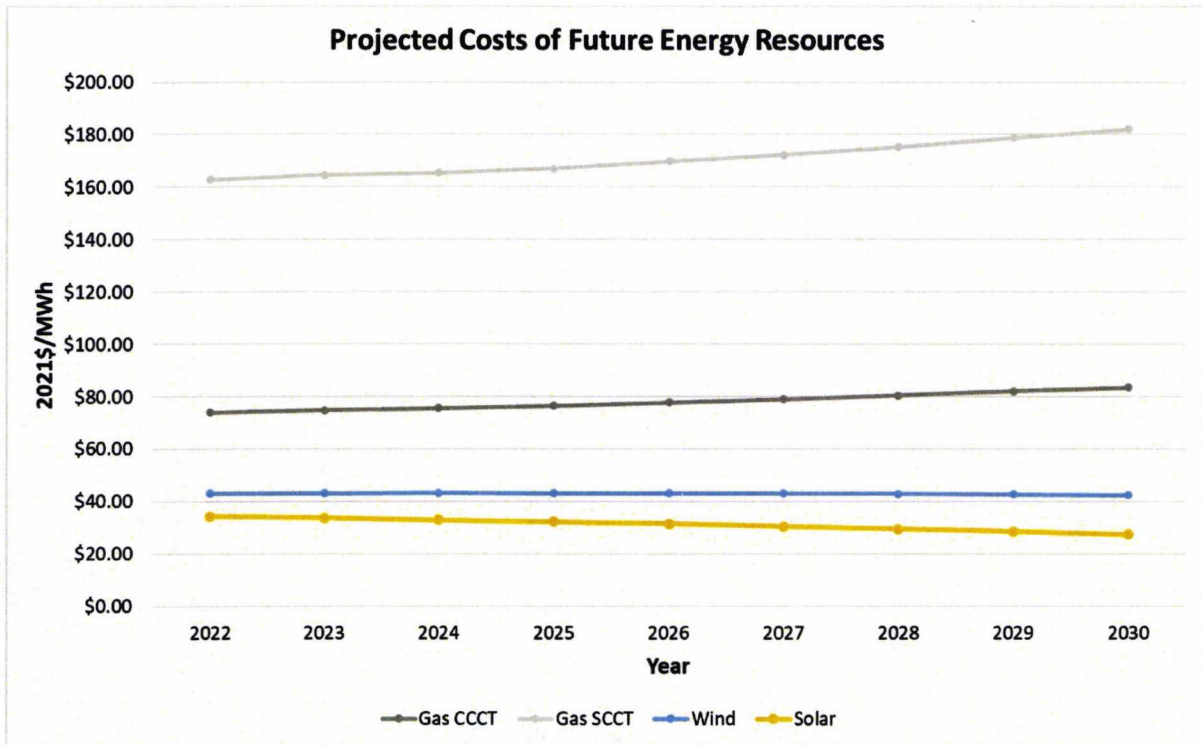
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model by taking into account stakeholder comments on the 2019 IRP as well as Advisory Committee input. ICL in particular notes the Company's work with the vendor to enable the model to optimize portfolios for Idaho Power's service territory instead of just the larger western interconnection. We appreciate the verification test that compares model runs where Bridger exit dates are optimized for Idaho Power against model runs that force alignment with PacifiCorp's proposed exit dates. We want to emphasize that these results show that exiting Bridger earlier than PacifiCorp results in a lower cost portfolio while maintaining sufficient reliability metrics. While we have significant concerns described below about the assessment of converting Bridger units to gas, overall the 2021 IRP process to assess Bridger exits is a substantial improvement over prior years.

*Improved assessment of clean energy options*

The 2021 IRP is the first in many IRP cycles to conclude that adding new clean energy resources is the preferred avenue for creating an affordable and reliable energy system. ICL generally supports the Company's use of the Effective Load Carrying Capacity method to assess contributions to peak loads. Of course, the implementation details matter, but overall, the focus on specific hours rather than broader averages is an incremental improvement to the process. We also appreciate Idaho Power's improved assessment of storage resources which have the potential to provide clean, flexible, and reliable service without the cost and environmental risks of gas peaker plants. The superiority of clean resources is further shown by Idaho Power's request to quickly add solar resources through the Clean Energy Your Way program as well as the Company's request for a Certificate of Public Convenience and Necessity for storage resources. During a period of rapid load growth, the ability to quickly add cost effective resources that meet flexible siting needs is a valuable attribute of solar and storage projects.

Leveraging Idaho’s clean energy resources to meet our needs just makes sense. The following graph uses data from the 2021 IRP and reveals that as Idaho Power looks into the future, building new wind and solar energy resources is always lower in cost than building new gas plants.



*Improved modeling of Demand-Side Resource Potential*

ICL appreciates Idaho Power’s collaboration with the IRP Advisory Committee to refine the methodology for assessing energy conservation targets in the IRP. We support the approach of including the cost-effective energy conservation potential that is assumed to be achievable as a decrement to the load forecast. And, because the Company’s own potential studies show that more energy conservation opportunities exist, we support the approach of bundling the additional potential measures by load profile and pricing as an input to the IRP modeling process. This approach treats conservation similar to generation resources in the modeling process by using

objective criteria in addition to subjective assumptions about “achievability.” Allowing the model to assess the optimal amount of energy conservation can reveal additional conservation resources the Company should endeavor to acquire in the future and reduces the influence of subjective assumptions about the achievable levels of efficiency. This improved approach addresses many of the concerns ICL has raised over the years and we recommend the Commission encourage Idaho Power to continue this in future planning cycles.

### **The Bad**

The 2021 IRP contains four major flaws in the planning process that the Commission should direct Idaho Power to address in the future.

#### *Bridger conversion was late in the process and used speculative inputs*

The 2021 IRP process started by building on the 2019 preferred portfolio that included exiting the Bridger units between 2022 and 2030, primarily replaced with wholesale energy via the Boardman transmission and new solar generation. At the May 13, 2021 IRP Advisory meeting, the Company described the future supply-side resource options which did not include any coal to gas conversions. At the June 10, 2021 meeting, the Company described the modeling scenarios, which included manually built portfolios with various coal retirement dates, but no indication of coal to gas conversion scenarios. In a late-breaking plot twist announced during the second to last meeting on October 21, 2021, Idaho Power changed the Bridger coal analysis to include converting Units 1 and 2 to gas. This last-minute change to how a major resource is put into the model hindered stakeholders’ ability to collaborate with the Company.

Prior IRPs document that gas conversion is not necessary to create an optimal portfolio without Bridger. The 2017 IRP specifically considered the future of Bridger units 1 and 2 and

concluded that early exit, without gas conversion, was the least-cost, least-risk option.<sup>2</sup> The 2019 IRP documented that exiting the entire Bridger plant by 2030 and pivoting to increased wholesale energy through the Boardman transmission line was the preferred option.<sup>3</sup> In both cases neither new gas or gas conversion were tied to the Bridger exits. While ICL recognizes the load forecast has increased since these prior IRPs, we also recognize that Idaho Power continues to assert that increased transmission and wholesale markets are the primary preferred resource and that clean options like solar, wind, and storage show continuing cost declines and performance gains. Probably the strongest evidence that gas conversion is not necessary over the long term is the fact that Idaho Power intends to shutter even this new gas by 2034. One need only look at the overall preferred portfolio to see that expanding the clean options is the primary basis for creating a reliable and affordable resource portfolio.

Even more worrisome is the speculative nature of the modeling inputs to assess the coal to gas conversion. According to Idaho Power's response to ICL production requests, as of April 2022, the Company was still in discussion with plant owner PacifiCorp about the necessary permits, infrastructure, and timeline needed to convert Bridger to gas. Without this basic information it is simply not reasonable to conclude Idaho Power rigorously evaluated the model inputs nor collaborated with stakeholders, which this Commission describes as necessary for a worthwhile planning process.<sup>4</sup> Because of the speculative nature of the gas conversion costs and last minute nature of the analysis, ICL recommends the Commission instruct Idaho Power to implement a transparent and rigorous process before any further action on the proposed gas conversion.

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<sup>2</sup> 2017 IRP at 133-134.

<sup>3</sup> 2019 IRP at 131-132.

<sup>4</sup> Order No. 34959 at 26.

*The gas price forecast is wrong and the Idaho Power's secret method of analysis prevents rigorous evaluation*

Idaho Power explains that “resources requiring purchased fuels like natural gas have a higher exposure to fuel price risk.”<sup>5</sup> This is a significant risk for customers that will only increase if the Company adds more gas generation to the system. The Power Cost Adjustment (PCA) provides stark examples of how forecasting errors and volatility directly impact customers. For the part of the PCA that looks at the past year, Idaho Power explains actual costs were 55% more than they expected.<sup>6</sup> Looking ahead to the coming year, the Company expects another 52% increase over forecasted prices.<sup>7</sup> Customers shoulder a disproportionate share of this risk when the Company passes this nearly 100% forecast error to customers who have no ability to mitigate this risk themselves. Due to this risk and potential customer impact, Idaho Power's IRP should strenuously evaluate both the gas prices put into the model as well as the risks of increased reliance on a volatile fuel.

Idaho Power explains that expected gas prices “are a significant driver of costs in the IRP process.”<sup>8</sup> Unfortunately Idaho Power's insistence on using a gas price forecast created through a highly confidential methodology makes any assessment of this dynamic exceedingly difficult. Despite clear and broad-based skepticism by the IRP Advisory Committee, Idaho Power chose to use a highly confidential gas price forecast methodology purchased from Platts. These expected gas prices appear in Appendix C and range from roughly \$2.75 MMBTU in 2023 to nearly \$5

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<sup>5</sup> 2021 IRP at 134.

<sup>6</sup> Brady, DI at 18, IPC-E-22-11

<sup>7</sup> *Id* at 12.

<sup>8</sup> IRP at 105.

MMBTU in 2040.<sup>9</sup> Beyond expected prices, Idaho Power's stochastic analysis of gas price risk misses the mark by a wide margin. The Company's gas price sampling shows both expected prices and various iterations ranging from \$2 - \$5 per MMBTU between 2022-2026.<sup>10</sup> But actual gas prices are already way above this level, according to the US EIA short-term energy outlook of May 2022.<sup>11</sup> The Wall Street Journal further reported on May 26, 2022 that methane prices for June delivery "have tripled over the past year and haven't been so high since 2008."<sup>12</sup> This mismatch between Idaho Power's IRP inputs and reality undercuts all of the Company's analysis of the Bridger coal to gas conversion.

What is worse is that while we can see that Idaho Power's gas price forecast is very wrong, we cannot understand what factors are behind this difference between the forecast and reality. Gas forecasts are complicated and must account for a wide range of national and global dynamics. But, the public-facing portion of the IRP merely lists the factors that the vendor, Platts, considered in their secret method.<sup>13</sup> What is missing from this list is any discussion of how Platts weighs those factors, how each factor influences the final price, whether the assumptions derived from considering the factors turn out to be accurate or not, or any other useful information to assess the accuracy of this model input. By stark contrast, using a publicly available methodology, such as the US Energy Information Administration gas price forecast, would allow stakeholders to strenuously evaluate model inputs and collaborate with the

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<sup>9</sup> 2021 IRP Appendix C at 92.

<sup>10</sup> IRP Appendix C at 92.

<sup>11</sup> U.S. EIA Short-term Energy Outlook, May 2022. Available here: [https://www.eia.gov/outlooks/steo/report/natgas.php#:~:text=We%20expect%20the%20Henry%20Hub,%E2%80%932021\)%20average%20this%20summer.](https://www.eia.gov/outlooks/steo/report/natgas.php#:~:text=We%20expect%20the%20Henry%20Hub,%E2%80%932021)%20average%20this%20summer.)

<sup>12</sup> Natural-Gas Prices Surge as Summer Cooling Season Switches On, Wall Street Journal, May 26, 2022. Available here: <https://www.wsj.com/articles/natural-gas-prices-surge-as-summer-cooling-season-switches-on-11653537481>

<sup>13</sup> 2021 IRP at 104-105.

Company and other customers, as this Commission noted is the basis for a worthwhile planning process.<sup>14</sup>

### *Customer-Owned Solar*

Idaho Power's 2021 IRP neglects to model the resource capacity of customer-owned solar and storage resources, despite customer-owned solar's potential to make the grid more reliable and lower costs to customers as well as strong customer interest in both rooftop and community solar options.<sup>15</sup> Although increasing distributed energy buildout may raise overall costs in the short term, high levels of distributed generation result in significant cost savings to both customers and utilities in the long term.<sup>16</sup> Increased distributed generation buildout also helps reduce demand peak variability which both lowers costs to the grid overall and increases the profitability and feasibility of large, utility-scale and utility-owned renewable energy projects.<sup>17</sup> Lastly, Customer-owned solar can infuse income into local economies and provide electricity bill relief to lower-income customers.<sup>18</sup> Idaho Power's customers have also submitted a variety of formal and informal public comments in Idaho Power's Value of Solar and Clean Energy Your Way proceedings expressing their interest in participating in expanded solar options and realizing the above benefits of customer generation.

Idaho Power has an obligation to ensure that its IRP models incorporate all potential forms of generation, including customer-owned solar, in order to ensure that its resource portfolio is as cost-effective and reliable as possible. Given that Idaho Power will likely find that

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<sup>14</sup> See Order No. 34959 at 26.

<sup>15</sup> IRP at 106-114 (describing "IRP Resources" to include utility-scale solar and storage only).

<sup>16</sup> Clack, C., et al., Why Local Solar for All Costs Less: A New Roadmap for the Lowest Cost Grid, Vibrant Clean Energy, 33 (Dec. 2020).

<sup>17</sup> Id. at 48.

<sup>18</sup> Farrell, J., Advantage Local: Why Local Ownership Matters, Institute for Local Self-Reliance, 2-3 (Sep. 2014).  
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customer generation is beneficial for customers and the grid, it should design policies that will support more customer generation. These policies include a value of solar that accounts for all of the grid reliability and environmental benefits of customer-owned solar and is stable over the long term in order to support solar investments. Idaho Power should also develop a customer-owned community solar program in which groups of customers can subscribe to an off-site solar array and receive the financial and energy benefits of that solar through virtual net metering. The IRP should account for increased resource capacity from these types of customer generation programs.

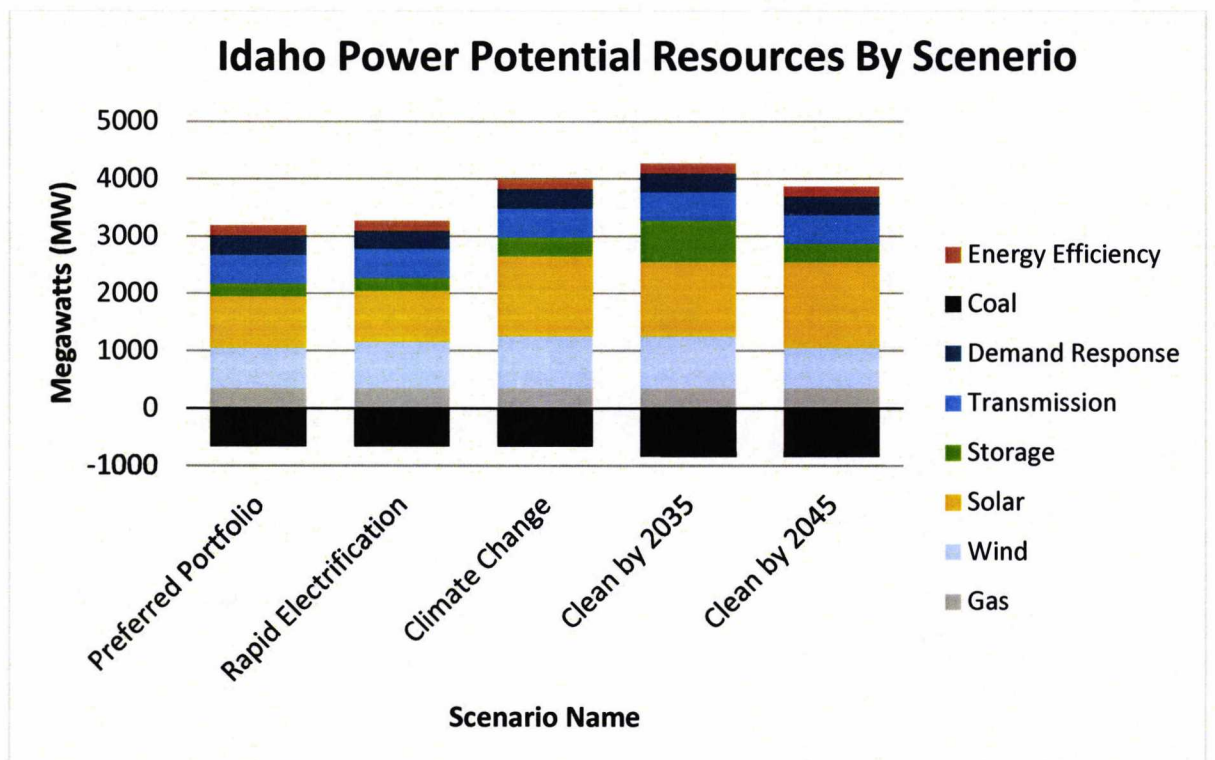
### **Looking ahead**

The part of the 2021 IRP that best accommodated the interests and input of stakeholders is Idaho Power's modeling of alternative future scenarios for clean energy goals, climate change impacts, and growing electrification by customers. Traditionally, the IRP process included a narrower range of future scenarios limited to hydroelectric conditions, gas prices, and customer loads, along with discrete questions about the Boardman to Hemingway line and the future of Bridger coal. While these factors are both uncertain in the future and influence the optimal portfolio of resources, they are not the only uncertain and influential factors at play today. The primary example of this is Idaho Power's own corporate clean energy commitment - a policy choice that will influence the future portfolios that should be modeled in the planning process. ICL appreciates Idaho Power's collaboration to assess four future scenarios that help inform the Company, stakeholders, and this Commission about attributes and costs for the energy system of the future.

To develop these future scenarios ICL worked with Advisory Committee members and Idaho Power to define four scenarios. The 100% clean energy by 2045 scenario matches Idaho

Power’s corporate commitment. The 100% clean energy by 2035 scenario tests how Idaho Power could align with federal goals and policies in neighboring states. The Rapid Electrification Scenario examined the impacts to Idaho Power by switching heating and transportation fuels away from imported fossil fuels and towards Idaho’s clean electricity resources. And the Climate Change scenario tested the impacts to electric loads and hydro-generation due to science derived expectations about temperatures and precipitation patterns. Each of these scenarios address future scenarios that Idaho Power, customers, and regulators can build towards if they reveal beneficial outcomes.

This graphic built from the IRP modeling results show that small changes to the preferred portfolio can enable Idaho Power to prepare for these futures.



ICL recommends the Commission encourage Idaho Power to continue to model this type of policy-driven futures along with the traditional assessment of differing assumptions about loads, gas prices, and hydro generation.

### **Conclusion**

Overall, the 2021 IRP represents an incremental improvement from the 2019 IRP, especially in how the Company refined the capacity expansion modeling approach. We appreciate Idaho Power's assessment of Bridger closure dates and clean energy options. And the inclusion of alternative future scenarios allows for a useful assessment of how to build resource portfolios that address e probable policy outcomes. But we strongly question the Bridger gas conversion assessment due to its last minute nature and speculative model inputs, as well as Idaho Power's insistence on using a gas price forecast based on a secret methodology that results in already out-of-date prices. We also urge Idaho Power to model the potential of customer generation for its resource portfolio. ICL recommends the Commission acknowledge these improvements and direct Idaho Power to rectify the flaws in future IRPs.

Respectfully submitted this 2nd day of June 2022,




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Benjamin J. Otto  
Idaho Conservation League

## CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of June 2022, I delivered true and correct copies of the foregoing COMMENTS to the following persons via the method of service noted:



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