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October 5, 2023

VIA ELECTRONIC FILING

Jan Noriyuki
Commission Secretary
Idaho Public Utilities Commission
11331 W Chinden Blvd
Building 8 Suite 201A
Boise, Idaho 83714

**RE: CASE NO. PAC-E-23-10 - PACIFICORP'S APPLICATION FOR
ACKNOWLEDGEMENT OF THE 2023 INTEGRATED RESOURCE PLAN**

Dear Ms. Noriyuki:

Pursuant to Commission Order No. 35809 - Notice of Modified Procedure, issued June 8, 2023, in the above referenced matter, PacifiCorp submits reply comments to written comments filed by Commission Staff and several members of the public.

Informal inquiries may be directed to Mark Alder, Idaho Regulatory Affairs Manager, at (801) 220-2313.

Sincerely,

A handwritten signature in blue ink that reads "Joelle Steward".

Joelle Steward
Senior Vice President, Regulation and Customer & Community Solutions

Enclosures

cc: Terri Carlock

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Attorney for Rocky Mountain Power

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

**IN THE MATTER OF PACIFICORP’S) CASE NO. PAC-E-23-10
APPLICATION FOR ACKNOWLEDGEMENT)
OF THE 2023 INTEGRATED RESOURCE) REPLY COMMENTS OF
PLAN) ROCKY MOUNTAIN POWER**

In accordance with Rule 202.01(d) of the Rules of Procedure of the Idaho Public Utilities Commission (“Commission”) and the Commission’s June 8, 2023 Order No. 35809 – Notice of Modified Procedure, PacifiCorp d/b/a Rocky Mountain Power (“PacifiCorp” or the “Company”), by and through its counsel, provides these Reply Comments to the comments received by the Commission from the Commission’s Staff (“Staff”) and 14 public comments submitted to the Commission June 12, 2023 through September 27, 2023 from members of the public (“Public Comments”).

I. PROCEDURAL BACKGROUND

On March 31, 2023, PacifiCorp filed its 2023 Integrated Resource Plan (“2023 IRP”) with the Commission pursuant to the Commission’s Order No. 22299, Case No. U-1500-165, dated January 1989 (“Order No. 22299”) that requires utilities to file bi-annual Integrated Resource Plans (“IRPs”).

On April 24, 2023, the Commission issued Order No. 35751 - Notice of Filing and Notice of Intervention. Interested parties were given 21 days to intervene in the case.

On May 16, 2023, the Commission issued a Notice of Parties listing the Company and Staff as parties to the case.

On June 8, 2023, the Commission issued Order No. 35809 - Notice of Modified Procedure, which informed the parties that the case would be processed under the Rules of Procedure 201 through 204 and established a procedural schedule for interested parties to file comments by September 14, 2023, with the Company's reply comments due on October 5, 2023.

On September 14, 2023, Staff filed comments on the Company's 2023 IRP.

In addition, there were several public comments submitted from June 12, 2023 – September 27, 2023, all of which were sent by KnowWho, as a service provider on behalf of the Sierra Club by individuals who are not PacifiCorp customers, focusing on a transition to renewable energy generation sources.

II. COMMISSION IRP STANDARDS

The IRP is a 20-year long-term resource plan intended to identify the least-cost, least risk portfolio of generation and transmission resources needed to meet the Company's obligation to serve. In Order No. 22299, the Commission required each electric utility party to submit a report of the status of its resource planning and established the standard for IRPs.¹ The reporting requirements the Commission established are:

- (1) Discuss any flexibilities and analyses considered during comprehensive resource planning, such as:
 - a. Examination of load forecast uncertainties;
 - b. Effects of known or potential changes to existing resources;
 - c. Consideration of demand and supply side resource options; and

¹ *In the Matter of the Investigation by the Idaho Public Utilities Commission into Idaho Electric Utility Conservation Standards and Practices*. Order No. 22299. (January 27, 1989).

- d. Contingencies for upgrading, optioning, and acquiring resources at optimum times (considering cost, availability, lead time, reliability, risk, etc.) as future events unfold.
- (2) Address Existing Resource Stack, Load Forecast, and Additional Resource Menu.²

In addition to complying with Order No. 22299, PacifiCorp must also comply with the 2021 IRP Order No. 35514, Case No. PAC-E-21-19, dated August 30, 2022 (“2021 IRP Order”).

Those requirements are:

- Consider the concerns raised in comments submitted in this case as it plans;
- Continue evaluating all resource options and the best interests of customers when developing the 2023 IRP;
- Clarify whether a Loss of Load Hour (“LOLH”) reliability target of 2.4 hours per year was achieved by the Company’s portfolios;
- Clarify the development of Front Office Transaction (“FOT”) availability limits in future IRPs; clarify whether the inclusion of three percent contingency amounts for firm purchases were appropriate to include to meet Company load; and clarify the issue of exceedance of FOT limits in the early years of the planning horizon as it pertains to the first deficit date for purposes of PURPA avoided cost rates;
- Explore an approach allowing for the selection of natural gas resources in a portfolio while also providing an adjustment to the cost based on the expected cost risk of becoming a stranded asset; and
- Better assess the risks of technology viability and potential delays inherent with the Natrium nuclear plant implementation and plan for contingencies.

The Company has met these standards and requirements. Further, Appendix B of the 2023 IRP lists the requirements included in the 2021 IRP Order and provides a reference to where those requirements were met.³

² *Id* at 7.

³ 2023 IRP, Appendix B – IRP Regulatory Compliance at 33.

To be acknowledged, the 2023 IRP must address the areas required by Order No. 22299 and the 2021 IRP Order. Because the Company's 2023 IRP meets the requirements of those orders, the Commission should acknowledge the Company's 2023 IRP.

III. INTRODUCTION

The 2023 IRP was developed after substantial stakeholder input. PacifiCorp began a series of broader-topic general public-input meetings starting in February 2022, which addressed a range of subjects describing PacifiCorp's modeling methodology, inputs, and assumptions for the 2023 IRP. Agenda topics included, but were not limited to, resource cost-and-performance assumptions, model function and overview, load forecast, price-policy assumptions, market price assumptions, jurisdictional clean energy obligations and transmission options. In all, PacifiCorp held 11 public-input meetings. Public-input meeting materials, supporting studies, and stakeholder feedback forms can be found on PacifiCorp's IRP webpage.⁴

The resulting 2023 IRP and action plan⁵ ensures that PacifiCorp will provide adequate and reliable electricity supply to its customers at a reasonable cost. PacifiCorp's selection of the 2023 IRP preferred portfolio is supported by detailed data analysis under the following commitments steps: (1) Prioritizing Savings and Value for Customers, (2) Expanding Clean Power; (3) Building Storage Capacity; and (4) Investing in Transmission.⁶ Each of these steps in the 2023 IRP development process are presented in greater detail in the Company's filing, including the supporting work papers that present the underlying data for each of the portfolios analyzed by PacifiCorp.

⁴ See, <https://www.pacificorp.com/energy/integrated-resource-plan.html>; See also the 2023 IRP Volume II, Appendix C – Public-Input Process for more detail.

⁵ 2023 IRP, Chapter 10 – Action Plan. Presentation of PacifiCorp's 2023 IRP action plan linking the company's preferred portfolio with specific implementation actions, including an accompanying resource acquisition path analysis and discussion of resource procurement risks.

⁶ 2023 IRP, Chapter 1 – Executive Summary at 1.

In these Reply Comments, PacifiCorp describes how the 2023 IRP and the associated action plan comply with all Commission requirements and responds to comments made by Staff. Because the 2023 IRP meets all Commission guidelines, the Company respectfully requests that the Commission acknowledge the 2023 IRP.

IV. REPLY TO PARTIES' COMMENTS

A. Commission Staff's Comments:

Staff recommends the Commission acknowledge the Company's 2023 IRP based on their review of the 2023 IRP and participation in stakeholder meetings. Staff recognizes that the 2023 IRP met the requirements in Order No. 22299.

Although Staff recommends that the Commission acknowledge the 2023 IRP, Staff also identifies areas for future analysis and/or improvement. Specifically, Staff suggests the Company (1) review its practices for hedging natural gas fuel supply to mitigate fuel-supply risk as it continues to step away from coal and into increased use of natural gas for dispatchable generation, (2) keep the Commission informed with regular updates on the Company's progress toward implementation of the Natrium nuclear plants, (3) consider strategies to address potential delays in the capacity provided by the B2H transmission line; and finally, (4) begin forecasting the benefits of WRAP when it is projected to become a binding participant in the next IRP.

Drivers for Decarbonization

As Staff notes, federal legislation and policy directives are key drivers for resource selection in the 2023 IRP, and all incremental resource selections are non-emitting. The move away from thermal fuel-supply risk, including coal-to-gas conversions were encouraged by the Inflation Reduction Act ("IRA") and the Environmental Protection Plan's Ozone Transport Rule ("OTR"). At the same time, the 2023 IRP is continuing to follow an ongoing trajectory toward increased

non-emitting resources that has been observed since at least the 2017 IRP cycle. This trajectory is driven not only by federal legislation but also by state initiatives and the relative cost of renewables generally. It is this observed trajectory, with an expectation that it will continue, that underlies the continued inclusion of a CO₂ proxy cost in the 2023 IRP.

The IRA legislation and OTR regulations are significant, but these are merely the biggest current headline examples of a pre-existing trend that is expected to continue in the foreseeable future. While PacifiCorp agrees that recent federal legislation provides a strong incentive underlying 2023 IRP results, it is reasonable to expect that the trend, less steeply emphasized, would be present even in the absence of these two specific events. For example, while the IRA provides tax credits that reduce the cost of non-emitting resources; wind, solar, and battery storage costs are also projected to fall over a portion of the 2023 IRP horizon, and to increase more slowly than inflation thereafter. This increases the economics of these resources over time relative to emitting resources whose costs are projected to grow at inflation.

PacifiCorp’s Hedging Program

The risk management policy, which includes the power and gas limits program, is reviewed/revised at least once per year. This review by the risk oversight committee includes executives in energy supply management, commercial, finance, and legal, and then is reviewed and approved by the Pacific Power president who serves as the policy owner.

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In the context of 2023 IRP modeling, risks related to natural gas supply, and therefore cost, are represented not as hedging but as price risk, defined by the 2023 IRP’s price-policy scenarios.⁷ Each initial portfolio was evaluated for cost and risk among three natural gas price scenarios (low, medium, and high) and three carbon dioxide (CO₂) price scenarios (zero, medium, high). An additional CO₂ policy scenario was developed to evaluate performance assuming a price signal that aligns with the social cost of greenhouse gases (SC-GHG). Taken together, there are five distinct price-policy scenarios (medium gas/medium CO₂, medium gas/zero CO₂, high gas/high CO₂, low gas/zero CO₂, and the social cost of greenhouse gases). This treatment allows the IRP analysis to examine the costs, risks and robustness of portfolios when viewed under a range of possible futures.

In addition, the 2023 IRP includes a risk adjustment to the present value revenue requirement of each portfolio, grounded in applying stochastic shocks to electricity prices, load and hydro availability.⁸ In particular, shocks to electricity prices are associated with unanticipated natural gas price volatility.

⁷ See 2023 IRP, Volume I, Chapter 8 – Modeling and Portfolio Evaluation, pp 230-231.

⁸ See 2023 IRP, Volume II, Appendix H – Stochastic Parameters.

Taken together, price-policy scenario analysis and risk adjustment provide insight into each portfolio outcome relative to natural gas supply risk and associated cost.

Natrium Nuclear Plant Updates

The Company is open to providing the Commission with updates to the status of the Natrium™ demonstration project as needed. PacifiCorp is working with TerraPower, as part of a public-private partnership with the U.S. Department of Energy, to support the development of advanced nuclear reactors with integrated salt storage projects near retiring coal plants. In the 2023 IRP, the Natrium™ demonstration project is envisioned for placement at the Naughton facility in Kemmerer, Wyoming.

The Natrium™ demonstration project is significant, but also not yet within the 2-4 year action plan window. IRP modeling and analysis accounts for nuclear project risk in several ways. First, the 2023 IRP includes two portfolio variants, one to assess the impact of nuclear projects not coming to fruition (P05), and another to assess the impact of reliance not just upon nuclear but also non-emitting peakers (P06), the other notable “forward technology”.⁹ These two scenarios then inform alternative path analysis in the IRP.¹⁰

In case P05, the Natrium™ demonstration project, the portfolio compensates with 289 MW of non-emitting peaking resource, added in 2030. In 2032, the second advanced nuclear plant is replaced by 303 MW of non-emitting peaking resource and 200 MW of four-hour battery storage. Higher costs and emissions result from increased fossil-fueled generation, emissions and net market transactions, warranting continued consideration of nuclear power. PacifiCorp

⁹ See 2023 IRP, Volume I, Chapter 8 – Modeling and Portfolio Evaluation, pp 243-244, and Chapter 9 – Modeling and Portfolio Selection Results, pp 267, 275-277.

¹⁰ See 2023 IRP, Volume I, Chapter 10 – Action Plan.

continues to evaluate alternative paths with regard to Natrium™ to make sure that those alternatives remain up-to-date and timely.

Since the project is still in active development, the Company does not have any significant updates to provide at this time but is open to reporting on the project in the future.

Boardman to Hemingway (“B2H”) Construction

As noted in Staff comments, the Commission approved Boardman-to-Hemmingway CPCN in Final Order No. 35839. Idaho Power has been designated as the project manager responsible for overseeing the construction of this transmission project. PacifiCorp is fully committed to collaborating with Idaho Power to ensure the timely completion of this important infrastructure initiative.

The 2023 IRP process also includes ongoing evaluation of the Boardman-to-Hemmingway project (“B2H”). In addition to the endogenous selection of B2H for the preferred portfolio, in the 2023 IRP, B2H project risk is evaluated through a specific B2H analysis (variant P16) and alternative path analysis. Variant study P16 evaluates impacts of not pursuing or achieving B2H on its assumed timeline.¹¹ Alternative path analysis is provided in the 2023 IRP Action Plan, which describes near-term and long-term implications.¹²

The Company remains open to suggestions for future analysis.

Begin Forecasting the Benefits of the Western Resource Adequacy Program (“WRAP”)

The Company continues to be involved in the development of the WRAP, including both the rules and operational practices necessary to achieve the intent of enhancing the reliability of

¹¹ Chapter 9 – Modeling and Portfolio Selection Results, pp 267-269, 290-292.

¹² See 2023 IRP, Volume I, Chapter 10 – Action Plan, p 374.

participants by sharing resources. The Company expects its 2025 IRP will include discussion of the impacts of WRAP compliance and will include appropriate modeling of planning reserve margin and resource requirements. However, the Company would note that it is difficult to quantify the benefits of participation vs. non-participation. Historically, the Company's IRP has identified a planning reserve margin based on various reliability metrics and the incremental costs of achieving higher levels of reliability. In the past this has included some reliance on market transactions, but historical market access will be of limited relevance if many potential counterparties are participating in WRAP and will provide priority to other participants, rather than non-participants. This is on top of the evolving risks as more wind and solar resources are added to the western grid and thermal resource retirements outpace thermal resource additions. The WRAP will also have slightly different planning reserve margin metrics, hindering comparability. The WRAP comes with an expectation that sharing among participants will enhance reliability, but it cannot eliminate all risk and it will be difficult to quantify impacts on loss of load events, let alone the cost of those events.

B. Public Comments

There were 14 public comments submitted to the Commission June 12, 2023 through September 27, 2023 from members of the public. All of the comments were sent by KnowWho, on behalf of the Sierra Club by individuals who are not PacifiCorp customers, focusing on a transition to renewable energy generation sources. Driven by the aforementioned factors, this IRP underscores the already established trend toward decarbonization over the next 20 years, selecting 9,111 megawatts of new wind resources, 7,855 megawatts of new solar resources, and 8,095 megawatts of storage resources, including batteries co-located with solar generation, standalone batteries and pumped hydro storage.

V. CONCLUSION

PacifiCorp's 2023 IRP complies with the Commission standards and requirements. The 2023 IRP includes robust and extensive portfolio modeling under a wide-range of price-policy scenarios and other prudent planning assumptions discussed with, and reflective of, stakeholder input that ultimately results in the selection of a least-cost, least-risk preferred portfolio. The 2023 IRP also includes an action plan that is consistent with the long-term public interest. The Company's 2023 IRP satisfies all the requirements in Order No. 35514; therefore, the Company respectfully requests that the Commission acknowledge the Company's 2023 IRP.

DATED this 5th day of October 2023.

Respectfully submitted,

ROCKY MOUNTAIN POWER

A handwritten signature in blue ink, appearing to read "Joe Dallas", is written over a horizontal line.

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