

**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**LC 77**

In the Matter of )  
 )  
PACIFICORP, dba PACIFIC POWER, )  
 )  
2021 Integrated Resource Plan. )  
\_\_\_\_\_ )

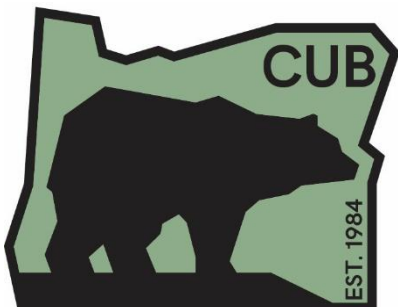
COMMENTS

OF THE

OREGON CITIZENS' UTILITY BOARD

ON STAFF REPORT

March 11, 2022



**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**LC 77**

In the Matter of	)	
	)	
PACIFICORP, dba PACIFIC POWER,	)	COMMENTS OF THE
	)	OREGON CITIZENS' UTILITY
2021 Integrated Resource Plan.	)	BOARD ON STAFF REPORT
<hr style="border: 0.5px solid black;"/>		

**I. INTRODUCTION**

The Oregon Citizens' Utility Board (CUB) files these Comments on Staff of the Public Utility Commission of Oregon's (Staff) Report (Staff Report) for PacifiCorp's (PAC or the Company) 2021 Integrated Resource Plan (IRP or Plan). PAC's IRP was initially filed on September 1, 2021. Staff's Report was filed on February 11, 2022.

In its opening comments, filed on December 3, 2021, CUB expressed concerns regarding inadequate cost and risk analyses for the Natrium nuclear reactor. The Company has consistently claimed that this resource provides a unique opportunity which is worth pursuing. While CUB encourages exploring emerging technologies, especially if it aids in the clean energy transition, CUB is careful about the pursuit of resources that threaten customers with high costs and risks, especially when the Company has not demonstrated that the resource is least cost and least risk. CUB's concern was shared by Staff and other stakeholders including NW Energy Coalition, Renewable Northwest, Sierra Club, and Green Energy Institute. In these Reply comments, CUB maintains its position that the Commission should not acknowledge Action Item 2c, the Natrium

Demonstration Project, and elaborates on its responses to selected comments and recommendations presented in the Staff Report.

## **II. NATRIUM DEMONSTRATION PROJECT**

CUB shares Staff's concern that the cost assumptions for Natrium used in the preferred portfolio analysis do not account for the risks of fuel availability, construction, or utilization of the plant. Staff also points out the stark discrepancy between PacifiCorp's estimated spent fuel processing cost for the Natrium plant and historical evidence from the Department of Energy that suggests a spent fuel cost of \$6 million per year. A wide range of unknown costs that pose a significant risk to customers calls for additional analysis from the Company. In the absence of a comprehensive analysis, the Commission and stakeholders cannot be comfortable with having this resource as a part of the 2021 IRP, let alone the Company's plan to "finalize all commercial agreements with TerraPower." Staff also agrees with CUB on additional risks that Oregon customers may experience in the wake of Oregon's exit from coal powered electricity by 2030. CUB agrees with Staff that Natrium should not be a part of the preferred portfolio and procurement rules should not be waived for this resource.

CUB notes two sets of recommendations for the Natrium resource as provided by Staff. The first set is recommendations regarding the treatment of the project in the IRP analysis, and a second set is for the acknowledgement of Action Items related to this resource. CUB believes that recommendations made by Staff with respect to the IRP analysis will result in more accurate modeling of the Natrium plant as a potential resource and a better understanding of costs and risks customers would be exposed to from this project.

Hence CUB supports Staff's recommendations 12, 13, and 14.

Section 2.1 of Staff Comments includes recommendations for acknowledgement of the action item 2c. Staff notes that the Natrium Demonstration Project action item looks reasonable, except for the part where it says that the Company will “finalize commercial agreements for the Natrium project”, which suggests committing to this project. Staff comments that the action item can be acknowledged if it does not imply commitment, therefore suggesting acknowledgement of this action item barring the quoted line. CUB disagrees with Staff on this.

The inclusion of the Natrium plant does not meet Commission guidelines 1a and 1b in Order No. 07-047. There has been extensive discussion in this proceeding on the lack of transparency and analysis on costs and risks of this project, especially when it is highly likely that a bigger share of these costs and risks would have to be borne by Oregon customers.<sup>1</sup> This resource may have replaced cheaper resources in the Company’s modeling as it was not considered on a comparable basis with similar resources. Staff restated these concerns in reference to the Company’s reliability analysis.<sup>2</sup> Staff and stakeholders agree that this resource should not be a part of the preferred portfolio. The IRP Action Plan typically lists the utility’s near-term strategies that would eventually help build the IRP preferred portfolio. Unless the Company has answered questions raised by the Commission and stakeholders, CUB cannot recommend acknowledgement in part or whole of the action item 2c in the IRP. PacifiCorp should address the concerns raised by parties and present a better analysis in its next IRP so its plan with Natrium can be made a part of the Action Plan. For now, CUB continues to recommend that the Commission not acknowledge this action item and supports Staff’s recommendations 12, 13, and 14.

---

<sup>1</sup> LC 77 – CUB’s Opening Comments at 10-11.

<sup>2</sup> LC 77 – Staff’s Final Comments at 24.

### **III. DEMAND RESPONSE**

CUB believes that demand side resources will play a critical role as more variable resources are integrated to the Company's system and as we head towards greater electrification. CUB agrees with Staff that conservation and managed consumption could shield Oregon customers from unknown costs and risks associated with new supply side resources and help mitigate capacity needs. Additionally, CUB believes that different classes of demand response resources, including direct load control and price-based demand response, should be evaluated as a competitive resource and considered in the portfolio optimization analysis.

To this end, CUB supports Staff's recommendations 35 and 36 regarding energy efficiency and demand response.

### **IV. OFFSHORE WIND AND HYDROGEN**

CUB is supportive of exploring emerging or mature clean technologies to the extent that costs and risks are minimized for Oregon customers. Therefore, it is important to understand the analysis that goes behind inclusion of these resources in the IRP. Offshore wind (OSW) is gaining importance as a clean energy resource, but we still need more information on how it compares to alternative resources. Staff's suggestions regarding OSW are a step in the right direction.

CUB supports Staff's recommendations 17, 18, and 19.

For the same reason, CUB is supportive of Staff's suggestions to consider using green hydrogen to run a converted Bridger unit. Staff also cites several power companies that are resorting to this technology as they retire coal plants. Both OSW and hydrogen are clean technologies and have the potential to help serve future energy and capacity needs. However,

more data and information are required to test the feasibility and cost effectiveness of these resources.

CUB supports Staff recommendations 4, 5, and 6.

Staff also points out the potential of including hydrogen as a flexible load on PacifiCorp's system. CUB is still gathering information about this new technology. Hydrogen is gaining importance as a replacement of fossil fuel in both electric and natural gas sectors. There is a good chance that hydrogen generation would add to future electric loads. Research shows that hydrogen generators could potentially act as dispatchable load and help keep system costs low in a carbon constrained electric generation environment. CUB supports future discussions on estimating hydrogen load and modeling it in the IRP optimization analysis. CUB welcomes the idea of a separate tariff for third-party hydrogen generators and would be interested in having that conversation with stakeholders and the Company.

CUB supports Staff recommendations 15 and 16.

## **V. CLIMATE ADAPTATION STUDY**

CUB recognizes the importance of including climate change modeling and has provided several suggestions to model impacts of climate change in the IRP analysis in its opening comments. CUB appreciates responses from PacifiCorp and Staff, and believes there is room for improvement in modeling climate change impacts. CUB is open to the idea of having climate change impacts included as a status quo.

CUB supports Staff recommendation 40.

## **VI. CONCLUSION**

CUB appreciates the opportunity to participate in PacifiCorp's 2021 IRP process. Staff's comments reflect concerns shared by other stakeholders in this docket, and CUB appreciates

Staff's hard work and thorough analysis. Staff has a comprehensive set of recommendations that guides the Company towards a more transparent and comprehensive analysis that should benefit all the participants in PacifiCorp's current and future IRP proceedings.

Dated this 11th day of March 2022.

Respectfully submitted,

A handwritten signature in cursive script that reads "Sudeshna Pal".

Sudeshna Pal, Economist  
Oregon Citizens' Utility Board  
610 SW Broadway, Ste. 400  
Portland, OR 97205  
T. 503.227.1984  
E. [sudeshna@oregoncub.org](mailto:sudeshna@oregoncub.org)