



June 30th, 2023

Via Electronic Filing

Public Utility Commission
Attn: Filing Center
PO Box 1088
Salem, OR 97308-1088

RE: LC 82 OSSIA Round 0 Comments on PacifiCorp's Integrated Resource Plan and Clean Energy Plan

The Oregon Solar + Storage Industries Association ("OSSIA") respectfully submits Round 0 comments on PacifiCorp's ("PAC") 2023 Integrated Resource Plan ("IRP") and Clean Energy Plan ("CEP") for consideration by the Oregon Public Utility Commission ("Commission"). OSSIA urges PAC to make changes to some aspects of the company's IRP and CEP to better reflect the intent and requirements of HB 2021. OSSIA's comments below deal primarily with the technical and economic feasibility of transmission and acquisition of Natrium resources. These comments also identify some other areas for improvement. Staff and the Commission got it right when they did not acknowledge PAC's Natrium resource acquisition in the 2021 IRP, and this IRP triples down on an untested resource. Accordingly, it is not sufficiently different to warrant different treatment in this IRP. OSSIA offers initial high-level thoughts and suggestions in these round 0 comments and reserves the right to make more detailed recommendations for or against acknowledgement in future comment rounds.

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1. Transmission Constraints

PacifiCorp’s CEP must be economically and technically feasible.¹ Resources identified in the preferred portfolio must be able to reach commercial operation and reach Oregon customers on the timelines assumed. Therefore, to the extent such resources rely on necessary transmission upgrades, the timelines and costs to build those transmission lines must be realistic. In this IRP and CEP, PacifiCorp does not clearly lay out which resources in the preferred portfolio are relying on which transmission investments. OSSIA recommends that PacifiCorp more clearly make the connection between the resources identified in the preferred portfolio and the transmission investments needed to support those resources, so that stakeholders and the Commission can determine whether the timeline assumptions for each of those transmission investments are technically feasible to support the resources. OSSIA further recommends that the cost assumptions for those transmission investments also be made transparent so that their economics feasibility can similarly be evaluated.

Transmission investments are key to meeting Oregon’s clean energy targets. PacifiCorp states that its Energy Gateway transmission expansion plan adding 2,500 miles of new transmission lines is “the foundation for [its] plan to meet [its] customers’ expectations for an affordable and reliable net-zero energy future.”²

¹ ORS 469A.420(2)(b).

² PacifiCorp’s Amended 2023 IRP at 6 (May 31, 2023).



In addition to seeking acknowledgment of various action items specifically related to its Energy Gateway transmission plans and investments, PacifiCorp seeks acknowledgment to “[i]nitiate Local Reinforcement Projects as identified with the addition of new resources per the preferred portfolio, and follow-on requests for proposal successful bids.”³ The 2023 preferred portfolio includes “substantial new renewables, facilitated by incremental transmission investments.”⁴ PacifiCorp lists transmission system upgrades in Tables 9.29 and 9.30 that those investments says will “facilitate continued and long-term growth in new resources needed to serve [its] customers” and that these projects were identified through its generator interconnection cluster study process.⁵

However, PacifiCorp only lists projects that are capable of being built in the first 5 years of the IRP preferred portfolio.⁶ Many transmission investments have a “long lead time” requiring significant advance planning, and PacifiCorp itself acknowledges this fact.⁷ Simply identifying projects from the generator interconnection study process that might be able to come online within the first 5 years of the preferred portfolio does not mean that the resources supported by those transmission investments are the resources needed. PacifiCorp has not clearly identified as such. Rather, the resources identified in the preferred portfolio may need longer-lead time transmission investments and if because of that longer lead time, the resource is

³ *Id.* at 31.

⁴ *Id.* at 307.

⁵ *Id.* at 309.

⁶ *Id.*

⁷ *Id.* at 95.



not capable of being delivered to load when PacifiCorp needs it, then those resources should be removed from the model. Therefore, PacifiCorp needs to clearly identify the transmission investments that the resources rely on.

2. Inclusion of Natrium Reactor in Preferred Portfolio

OSSIA has significant concerns on the inclusion of the Natrium resource in PacifiCorp's IRP. There are plenty of examples of new technologies like this taking many more years than expected to be built and going far beyond cost estimates. PacifiCorp indicated that it would need to seek waiver of the competitive bidding rules,⁸ which only furthers concerns that it will not be a good option for ratepayers and the commission would be giving them an out by acknowledging the resource in this IRP. If PacifiCorp continues to pursue an unproven resource it should do so at risk to its shareholders, not Oregon ratepayers.

Since the non-acknowledgement of the Natrium pilot reactor in the 2021 IRP, the Natrium project has already run into problems securing sufficient supply of high-assay, low-enriched uranium ("HALEU") fuel. This has already caused a two-year delay to the proposed in-service date⁹ and there is no guarantee that a domestic supply chain will be able to provide commercially sufficient amounts of HALEU fuel for the Natrium reactor in the near term. The Pacific Northwest has already seen the disastrous cost overruns that accompany the building of nuclear reactors. The Washington Public Power Supply System ("WPPSS") reactors took

⁸ OAR 860-089-0100(3)(c)

⁹ PacifiCorp 2023 Amended Integrated Resource Plan pg. 307



significantly longer than expected and were significantly over budget. After the WPPSS experience and the troubles with Hanford, Oregon has a remaining distaste for nuclear reactor projects and has banned siting nuclear facilities in the state. This advanced nuclear project carries all the risks associated with WPPSS and additional risks as it is an unproven technology. How are the risks associated with the Natrium reactor reflected in PacifiCorp's Action Plan? How much additional delay would PacifiCorp accept before it pivots to acquiring alternative resources?

In PacifiCorp's alternative analysis, the Company explains that it will be more expensive to acquire battery and clean-peaking resources, but it does so by comparing them to their estimates of a new technology which does not have set costs nor a clear regulatory approval timeline. Solar and storage resources are proven technologies that have little regulatory risk and have costs that are being driven down by competition and improvements in manufacturing. If this Natrium reactor is included in the acknowledged preferred portfolio, we fear a potential failure to deliver and PacifiCorp's failure to procure other resources in time. This would lead to non-compliance with the annual goals set out in HB 2021, continued use and lifetime extensions of fossil units, and exorbitant costs falling on ratepayers. OSSIA believes the Commission was correct to, "acknowledge the inherent complexities with the Natrium project and direct the Company to continue to assess the risks of technology viability and potential delays with



Natrium and plan accordingly.”¹⁰ The risks of the project falling further behind demonstrate the need for the company to have a plan that is technologically feasible. While the company has laid out an option to not rely on the Natrium reactor in its action plan¹¹, OSSIA is concerned that the company will continue to pursue the reactor until it becomes too late to acquire the needed 289 MW of non-emitting peaking resources in 2030. Accordingly, OSSIA recommends that the Commission hold specific workshops to assess the potential risks of this Natrium reactor.

3. Coal to Gas Conversions

OSSIA has concerns with increased gas conversions being proposed in the preferred portfolio. While it was part of the plan back in 2021, gas conversions seem to be a majority of PacifiCorp’s fossil resource plan going forward and the commission should put a lot of scrutiny on the assumptions around the modeling of these conversions. SB 1547 directed Oregon utilities to exit coal resources by 2030, and installing pollution control improvements on these coal plants when Oregon intends to leave them a few years later does not seem to be the optimal path forward. By transitioning coal plants to gas plants, it increases the decommissioning costs of those facilities. Are these costs adequately reflected in PacifiCorp’s 2023 IRP?

4. Regulatory Requirements

There is no mention of the in-state benefit policy statement in HB 2021 within PacifiCorp’s review of regulatory requirements. OSSIA believes that the commission should

¹⁰ *In re PacifiCorp, 2021 Integrated Resource Plan*, Docket No. LC 77, Order No. 35-514, pg. 17 (Mar. 23, 2022)

¹¹ *Id.* at pg. 373



follow the policy statements stated in Section 2 HB 2021 and ask PacifiCorp to include elements of that policy within their IRP and preferred portfolio. Acknowledgement of the IRP should be predicated on PacifiCorp acknowledging this policy preference and addressing it within their modeling and adherence to state policies. Will the company select resources sited in Oregon to the maximum extent practicable? Does PacifiCorp's IRP have a way to identify the benefits associated with projects built in Oregon?

5. Distributed Generation Cases

Due to significant transmission constraints in the Pacific Northwest, it seems appropriate for PacifiCorp to include a scenario with high adoption of distributed energy resources throughout their service territory. The IRP model cannot choose what is not in the model. Do any of the scenarios in this IRP reflect very high adoption of distributed generation resources?

6. Interconnection Costs of Resources in IRP

OSSIA has concerns that the reference cases chosen do not adequately reflect the interconnection costs of various resources. Pumped storage will require new transmission lines from sites to point of interconnection, which should be reflected in the interconnection costs of that resource. Those resources need to be burdened to adequately reflect the true costs of the resource and allow the IRP to make real world informed decisions. How does the IRP currently view the interconnection costs of pumped hydro resources?



Thank you for your attention to these comments.

Dated this 30th day of June 2023.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jack Watson", is written over a light blue horizontal line.

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