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**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

PacifiCorp's 2021 Integrated Resource Plan	Docket No. 21-035-09
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**COMMENTS OF THE UTAH ASSOCIATION OF ENERGY USERS**

The Utah Association of Energy Users ("UAE") hereby submits these comments regarding PacifiCorp's 2021 Integrated Resource Plan ("IRP").

Commission review of the IRP is important primarily for the following issues: (i) determining whether the IRP is sufficiently consistent with the Commission's published Standards and Guidelines to warrant acknowledgment; (ii) providing feedback on how the IRP process can be improved in the future; (iii) providing specific "review" and "guidance" to the utility under Utah Code §§ 54-17-101, et seq., on the proposed action plan; and (iv) evaluating the reasonableness of the timing and character of the next deferrable resource for avoided cost pricing purposes.

UAE appreciates the efforts of PacifiCorp ("PacifiCorp" or "Company") and others in developing this IRP. UAE has concerns about portions of this IRP, which represents a significant potential for increased risks and rates for captive Utah ratepayers stemming from proposed new resource additions, including from the proposed Natrium advanced nuclear demonstration project.

UAE also has concerns regarding information included in the IRP regarding long lead-time transmission planning projects. These concerns are addressed in further detail below, with references to the Commission’s IRP Standards and Guidelines (“Guidelines”) adopted in Docket No. 90-2035-01.<sup>1</sup>

As a result, and for the reasons set forth more fully below, UAE recommends that the Commission partially decline to acknowledge the IRP.

**I. THE PROPOSED NATRIUM NUCLEAR DEMONSTRATION PROJECT HAS NOT BEEN PROPERLY EVALUATED IN THE IRP.**

UAE is concerned about the Company’s inclusion of the Natrium Nuclear Demonstration Project (“Natrium”) in the preferred portfolio. Paragraph 1 of this Commission’s IRP Standards and Guidelines defines “integrated resource planning” as a “utility planning process which evaluates all known resources on a consistent and comparable basis.”<sup>2</sup> Paragraph 4(c) of the Standards and Guidelines go on to require that “PacifiCorp’s future integrated resource plans will include: . . . An evaluation of all present and future resources, including future market opportunities (both demand-side and supply-side), on a consistent and comparable basis.”<sup>3</sup> PacifiCorp fails to evaluate “all present and future resources . . . on a consistent and comparable basis” as it relates to the Natrium project.

PacifiCorp’s use of performance and cost assumptions for the Natrium project is not consistent or comparable to its use of assumptions for other generation resources considered in developing the IRP. For all generation resources evaluated in the IRP other than the Natrium

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<sup>1</sup> See Docket No. 90-2035-01, *In the Matter of Analysis of an Integrated Resource Plan for PacifiCorp*, Report and Order on Standards and Guidelines (issued June 18, 1992) (“Standards and Guidelines”). A true and correct copy of the Standards and Guidelines is attached hereto as UAE Exhibit 1.

<sup>2</sup> See *id.* at 14.

<sup>3</sup> *Id.* at 19.

project, PacifiCorp included a generic “proxy” resource in its supply-side resource table. The proxy supply-side resources, and associated assumptions, are shown in Table 7.1 of Chapter 7 of the filed IRP. The supply-side resources shown in Table 7.1 identify assumed capital costs and O&M costs for various types of generation resources (e.g., solar, wind, solar or wind plus storage, natural gas, geothermal, and nuclear), each with an assumed capacity, capacity factor, commercial operation year and design life. The assumptions for the resources listed in the supply-side research table are determined based on the known capabilities of mature technologies and existing equipment, on third-party evaluations of generation technologies like the Burns & McDonnell Renewable Resource Assessment, on pricing information gleaned from submissions to the 2020 AS RFP, and on PacifiCorp’s cost assumptions.<sup>4</sup>

By contrast, the assumed costs and performance capabilities of the Natrium project are not derived from any of the above-referenced resources, and PacifiCorp provides no information as to how any of the assumptions regarding the costs or capabilities of the Natrium project are derived. None of the assumptions regarding the Natrium project are included in the supply-side resource table. Instead, PacifiCorp states that “the specific cost and performance assumptions for the Natrium advanced nuclear demonstration project are confidential and are not summarized in the SSR.”<sup>5</sup> The IRP includes assertions about certain operational characteristics of the Natrium project, including capacity factor and ramp rate and the efficiency of the storage facility,<sup>6</sup> but no information is provided as to how those characteristics are known. PacifiCorp indicates that it is

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<sup>4</sup> See, e.g., 2021 IRP at 185-191.

<sup>5</sup> 2021 IRP at 204.

<sup>6</sup> See *id.*

engaged in commercial discussions regarding the project,<sup>7</sup> which may justify confidential treatment of the terms of those commercial discussions. However, the lack of information about the cost or performance assumptions of the Natrium project prevents any independent evaluation to determine the reasonableness of those assumptions.

The Natrium project was selected by the Plexos model to be part of the resource portfolios in all scenarios (except the sensitivity case where the model was not allowed to select the Natrium project) because the cost and performance assumptions made it economic for the model to select the project. The fact that Natrium was selected can be meaningful only if there is confidence in the cost and performance assumptions that caused it to be selected. There can be no confidence in the reasonableness of the cost and performance assumptions regarding the Natrium project for the reasons stated herein. The 2021 IRP does not evaluate “all present and future resources . . . on a consistent and comparable basis,”<sup>8</sup> and the Commission should decline to acknowledge the portion of the IRP that relates to the Natrium project.

UAE’s comments herein should not be construed to signal UAE’s opposition to the Natrium project at this stage. UAE appreciates the information that the Company has provided about the Natrium project to date, but that information is insufficient at this stage to reach any conclusions about the project. UAE looks forward to learning more about the Natrium project as more information is made available.

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<sup>7</sup> See 2021 IRP at 323 (indicating in Action Plan that “[b]y the end of 2022, PacifiCorp will finalize commercial agreements for the Natrium project.”).

<sup>8</sup> Standards and Guidelines at 14.

## II. THE IRP PROCESS WOULD BE IMPROVED IF THE COMPANY PROVIDED MORE INFORMATION REGARDING ITS LONG-TERM TRANSMISSION PLANNING ACTIVITIES

UAE recommends that the Commission direct the Company to provide additional information during the IRP process regarding its long-term transmission planning activities, particularly for larger projects. This Commission does not take an active role in the Company's transmission planning activities. Commission oversight is typically limited to determinations regarding applications for issuance of a Certificate of Public Convenience and Necessity ("CPCN") if part of a project is located in Utah, as well as applications seeking cost recovery of a project. The Company's transmission planning activities take place largely without Commission oversight and there is not a meaningful opportunity for IRP participants to engage in that transmission planning process. The IRP process would be improved if additional information were provided regarding the evaluation of transmission alternatives considered during the transmission planning process.

In Docket No. 21-035-54, the Commission's recent docket addressing the Company's application for a CPCN for the Gateway South project, the Company argued that a CPCN should be issued in part because actions taken by the Company and others years before the filing *required* the Company to build the project. For example, PacifiCorp's Vice President of Transmission, Rick Vail, testified in the Gateway South CPCN docket that the Company is obligated to build the Gateway South project because of its Open Access Transmission Tariff ("OATT") and executed contracts for interconnection and transmission service.<sup>9</sup> Mr. Vail testified that "[t]he OATT requires PacifiCorp to construct transmission system upgrades necessary to grant OATT requests

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<sup>9</sup> See Direct Testimony of Rick Vail at lines 498-879.

for transmission service and OATT requests for generation interconnection service.”<sup>10</sup> Mr. Vail further testified that if a transmission project that is part of the Company’s long-term transmission plan is required to reliably provide interconnection or transmission service, the Company is required to build the project.<sup>11</sup> Mr. Vail also testified that projects identified in the Company’s long-term transmission planning process “have gone through extensive local, regional and inter-regional planning coordination spanning multiple years,” and are, therefore, generally more efficient to identify in response to transmission and interconnection requests that require additional upgrades than are alternative routes that have not been through the same vetting process.<sup>12</sup> Mr. Vail’s testimony makes clear that the Company’s long-term transmission planning process can lead to decisions to proceed with new transmission projects that effectively exclude the possibility of alternatives.

In addition, once PacifiCorp announces that it plans to build a major new transmission project, generation developers will begin developing projects near that new transmission project in an effort to obtain access to the newly-created interconnection and transmission capacity. This is precisely what happened with Gateway South. PacifiCorp’s announcement of its plan to build Gateway South sent a signal to developers as to where future generation facilities may be sited, and developers sited projects and filed requests to interconnect those projects. Some of those generation projects obtained interconnection agreements and PacifiCorp has asserted that those interconnection agreements require the construction of the Gateway South project. Indeed, so

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<sup>10</sup> *Id.* at lines 544-546. *See also id.* at lines 536-540 (“[T]he OATT requires PacifiCorp to identify what transmission system upgrades are needed to accommodate the request, as well as the estimated cost and timing associated with constructing those upgrades. Those upgrades then become requirements identified in the OATT customer’s OATT contract.”).

<sup>11</sup> *Id.* at lines 606-631.

<sup>12</sup> *Id.* at lines 696-701.

many projects have been sited in Eastern Wyoming in an effort to utilize incremental transmission capacity created by Gateway South that the combined capacity of these projects exceeds the incremental capacity provided by Gateway South. PacifiCorp's recent interconnection studies have even indicated that a second new 416-mile, 500 kV transmission line, parallel to Gateway South, would be required to grant new interconnection requests.<sup>13</sup>

The Company's transmission planning process occurs in a setting that does not provide for stakeholder feedback or input that is anything like the public input meetings for the Company's IRP. UAE acknowledges the need for the Company to engage in long-term transmission planning and does not propose that this Commission involve itself in that process. However, UAE is concerned with the Company's lack of a robust analysis of transmission alternatives performed to date, specifically with regards to the Gateway transmission projects. As explained in UAE's direct testimony in the Gateway South CPCN docket, The Northern Tier Transmission Group's ("NTTG") 2018-2019 biennial Regional Transmission Plan identified an alternative transmission configuration (the "NTTG Alternative") to the Gateway West and Gateway South transmission projects that could provide reliable system performance in all of NTTG's test cases<sup>14</sup> at a capital cost savings of over \$1.9 Billion.<sup>15</sup> In the Company's prior IRP docket, the Commission ordered the Company to perform a sensitivity analysis to evaluate the NTTG Alternative. However, the

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<sup>13</sup> See, e.g. Generation Interconnection Cluster Study Report Cluster Area 1, dated Nov. 1, 2021. A true and correct copy of the Cluster 1 Study Report is attached hereto as UAE Exhibit 2. The Cluster Study Report assumes the completion of Gateway South and Gateway Segment D.1 by the end of 2024 and then states that new, parallel transmission lines that duplicate each of Gateway South and Gateway Segment D.1 would be necessary to interconnect the projects in the study.

<sup>14</sup> Northern Tier Transmission Group 2018-2019 Draft Final Regional Transmission Plan, September 18, 2019, Appendix E: NTTG 2019 Economic Study Request Report, p. 92, reproduced in UAE Exhibit 3.

<sup>15</sup> *Id.* p. 107. Gateway West and Gateway South capital costs estimated to be \$4.5 Billion – NTTG Alternative configuration estimated capital cost \$2.6 Billion = \$1.9 Billion capital cost savings.

Company's analysis and conclusions were primarily driven by the fact that the NTTG Alternative transmission configuration could not be completed on a comparable timeline to Gateway South. While it may be true *now* that the NTTG Alternative cannot be completed as quickly as Gateway South, that is the same rationale the Company has been using to justify its lack of a robust analysis of transmission alternatives since at least 2012.<sup>16</sup> If the Company's analysis had compared the NTTG Alternative to the Gateway transmission projects on an even footing with regards to the timeline to complete the projects earlier in the process, the results of the analysis would have been very different.

The Company already provides information about transmission planning projects in the IRP. Chapter 4 of the IRP devotes approximately 20 pages to information about transmission projects, and the Company includes upcoming transmission planning work in the Action Plan. Most of the information in the Action Plan, however, identifies actions the Company will take to execute on transmission projects for which a transmission configuration has already been determined to the exclusion of other transmission configurations.

UAE requests that the Company provide additional information about alternative transmission solutions being considered and evaluated prior to final siting, routing, and/or construction of major transmission projects.<sup>17</sup> For example, the Company includes a section in the 2021 IRP labeled Progress on Previous Action Plan Items, starting on page 327. This section

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<sup>16</sup> Large Generator Interconnection Feasibility Study Report, Completed for LGIQ#0409, May 4, 2012, p. 2, reproduced in UAE Exhibit 4. The report states that “[a]lternatives to the Gateway Project were not considered, as it is unlikely that new transmission lines could be constructed with an earlier in-service date than the Gateway Project.”

<sup>17</sup> Major transmission projects could generally be considered to be complete projects in excess of \$100 million. A complete project would include all related transmission components. For example, a complete project might include a new transmission line in addition to upgrades at the terminal substations to accommodate the new transmission line.



includes a discussion of the Utah South Reinforcements listed as item 3d on pages 334-335 of the IRP. The Utah South Reinforcements were identified in the 2019 IRP to support new resource additions in southern Utah. The Company indicates the following with respect to this project: “In Q2 2026 PacifiCorp is scheduled to identify route and terminals for new approximately 70-mile 345 kV line in southern/central Utah.”<sup>18</sup> UAE believes that the discussion about transmission planning projects in the IRP would be improved if more information about these projects was provided earlier in the process, rather than after the Company has committed to a specific route or transmission configuration to the exclusion of other options. As such, UAE requests that the Company provide information in the IRP process about alternative transmission solutions, including alternative routes and terminals, being considered for the Utah South Reinforcements, as well as for any other major transmission planning project. UAE notes that the preferred portfolio includes several large transmission planning projects that the Company expects to be placed in service between 2025 and 2040, as set forth in the following table from the Preferred Portfolio Fact Sheet in Appendix I:

***Incremental Transmission Upgrades***

<b><i><u>Description</u></i></b>	<b><i><u>Year</u></i></b>	<b><i><u>Capacity</u></i></b>
<i>Wyoming East &gt; Clover</i>	<i>2025</i>	<i>1200</i>
<i>B2H Borah &gt; Hemingway</i>	<i>2026</i>	<i>600</i>
<i>B2H Hemingway &gt; Midpoint</i>	<i>2026</i>	<i>455</i>
<i>B2H Walla Walla – WA &gt; Borah</i>	<i>2026</i>	<i>300</i>
<i>Portland North Coast &gt; Willamette Valley</i>	<i>2032</i>	<i>450</i>
<i>Utah South &gt; Utah North</i>	<i>2033</i>	<i>800</i>
<i>Portland North Coast &gt; Southern OR</i>	<i>2037</i>	<i>1500</i>
<i>Central OR &gt; Willamette Valley</i>	<i>2040</i>	<i>1500</i>

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<sup>18</sup> 2021 IRP at 334.

The IRP discussion regarding transmission planning projects would be greatly if the Company were to provide more information about these projects, including alternatives that have been, or are being evaluated, earlier in the process. As such, UAE respectfully requests that the Commission direct the Company to provide this additional information regarding transmission alternatives during the IRP process as such information is available.

DATED: March 4, 2022.

Respectfully submitted,



By:

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Certificate of Service  
Docket No. 21-035-09

I hereby certify that a true and correct copy of the foregoing was served by email on March 4, 2022 on the following:

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