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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

PacifiCorp’s 2023 Integrated Resource Plan

Docket No. 23-035-09

COMMENTS OF THE UTAH ASSOCIATION OF ENERGY USERS

The Utah Association of Energy Users (“UAE”) hereby submits the following comments regarding 2023 Integrated Resource Plan (“IRP”) submitted by PacifiCorp (“PacifiCorp” or “Company”).

STANDARDS AND GUIDELINES

In 1992 this Commission issued an order establishing “Standards and Guidelines for Integrated Resource Planning for PacifiCorp, Utah Jurisdiction” (“Guidelines”).¹ The Guidelines define the IRP as a “process which evaluates all known resources on a consistent and comparable basis” that “should result in the selection of the optimal set of resources given the expected combination of costs, risk and uncertainty.”² The Guidelines direct PacifiCorp to develop the IRP “in consultation with the Commission, its staff, the Division of Public Utilities, the [Office] of

¹ *In the Matter of Analysis of an Integrated Resource Plan for PacifiCorp*, Docket No. 90-2035-01, Report and Order on Standards and Guidelines issued June 18, 1992 [hereafter “IRP Guidelines Order”]. A copy of the Commission’s IRP Guidelines Order setting forth the Guidelines is attached hereto as Exhibit 1.

² *Id.* at 33 (Guideline 1).

Consumer Services, appropriate Utah state agencies and interested parties” and requires the Company to “provide ample opportunity for public input and information exchange during the development of its [IRP].”³

Once completed, the Company must “submit its IRP for public comment, review and acknowledgement.”⁴ Stakeholders are given an opportunity to “make formal comment to the Commission on the adequacy of the Plan,” and the Commission is to “review the Plan for adherence to the principles stated” in the Guidelines.⁵

PROCEDURAL HISTORY OF THE 2023 IRP

PacifiCorp held the first public input meeting for the 2023 IRP in February of 2022. From February of 2022 through April of 2023, PacifiCorp hosted a total of 11 public input meetings, all held remotely via Microsoft Teams. Prior to the meetings, PacifiCorp produced meeting materials to stakeholders that provided an agenda for the upcoming meeting as well as substantive information regarding the agenda topics. On March 2, 2023, the Company opened Docket No. 23-035-10 with the Commission by filing a Request for an Extension. The request sought permission to file a preliminary IRP on March 31, 2023 and then to file the final IRP on May 31, 2023. In the request, the Company indicated it would set a deadline of April 30, 2023 for stakeholders to submit comments and feedback to the Company regarding the preliminary IRP filing. The Commission granted the request. The Company then filed its preliminary IRP filing on March 31, 2023 and filed the final IRP on May 31, 2023.

³ *Id.* at 33 (Guideline 3).

⁴ *Id.* at 36 (Guideline 5).

⁵ *Id.* at 36-37 (Guideline 6).

UAE COMMENTS – 2023 IRP

I. PacifiCorp Failed to Comply with the Guideline Requirement to Collaborate with Stakeholders During the Development of the 2023 IRP

PacifiCorp failed to satisfy Guideline 3 when it elected not to share the results of any portfolio modeling runs with stakeholders prior to filing the preliminary IRP on March 31, 2023 and, therefore, the Commission should decline to acknowledge the 2023 IRP. Guideline No. 3 requires the Company to develop its IRP “in consultation with the Commission, its staff, the [DPU], the [OCS], appropriate Utah state agencies and interested parties.”⁶ Guideline No. 3 further requires the Company to “provide ample opportunity for public input and information exchange during the development of its [IRP].”⁷ This Commission has previously commented on the Company’s obligations under Guideline 3, stating that “[c]ollaboration with stakeholders to develop the IRP is fundamental to the process and such collaboration necessarily includes stakeholders’ access to information that allows for reasonable and meaningful participation.”⁸ PacifiCorp’s decision not to share modeling results denied stakeholders the required access to information and stakeholders from having reasonable and meaningful participation regarding the preferred portfolio selected by the Company in the 2023 IRP.

In the 2021 IRP Order, the Commission documented PacifiCorp’s “consistent disregard for Guideline 3 since, at least, 2017, despite the PSC admonishing it for failing to satisfy Guideline 3 for the 2017 IRP.”⁹ The 2021 IRP Order catalogues PacifiCorp’s failure to comply with Guideline

⁶ IRP Guidelines Order at 33 (Guideline 3).

⁷ *Id.*

⁸ *PacifiCorp’s 2021 Integrated Resource Plan*, Docket No. 21-035-09, Order issued June 2, 2022 at 8-9 [hereafter “2021 IRP Order”].

⁹ *Id.* at 9.

3 in each of the 2017, 2019, and 2021 IRP cycles and need not be repeated here.¹⁰ In those cycles, the Commission found that PacifiCorp violated Guideline 3 by failing to provide agendas and meeting materials sufficiently in advance of meetings to allow for meaningful stakeholder participation.¹¹

In the 2023 IRP cycle, while PacifiCorp generally provided meeting materials well in advance of each public input meeting, it elected not to share any portfolio modeling inputs with stakeholders during the IRP development process. The first time that the stakeholders in that process were permitted to see any portfolio modeling results was when PacifiCorp filed the preliminary 2023 IRP on March 31, 2023. At the technical conference held on October 24, 2023, UAE asked PacifiCorp to explain this decision. Specifically, UAE’s first question asked: “During the public input process for the 2023 IRP, PacifiCorp did not provide the results of any portfolio modeling runs until it filed the preliminary IRP on March 31, 2023. Please explain why portfolio modeling results were not shared prior to this point.”¹² In response, PacifiCorp acknowledged that it decided not provide modeling results to stakeholders during the IRP development process and, in explaining its decision, cited the challenges in the planning environment during the 2023 IRP cycle.¹³ Specifically, PacifiCorp cited the changes associated with the Inflation Reduction Act (“IRA”), the Ozone Transport Rule (“OTR”), and the EPA’s greenhouse gas rules, and stated that providing the initial portfolios during this uncertain environment would have been “premature.”¹⁴

¹⁰ *Id.* at 9-14.

¹¹ *See id.*

¹² *See* Docket No. 23-035-10, Utah Association of Energy Users’ Questions for the October 24, 2023 Technical Conference filed October 10, 2023 at 1.

¹³ *See* Docket No. 23-035-10, Recorded Live Stream of Technical Conference held October 24, 2023 (“Technical Conference Livestream”), starting at 1:11.

¹⁴ *Id.*

UAE acknowledges and appreciates that the planning environment for the 2023 IRP was challenging. These challenges do not, however, absolve PacifiCorp from satisfying its obligation to collaborate with stakeholders to develop the best possible IRP in the face of those challenges. PacifiCorp's decision not to share model results deprived stakeholders of necessary information and an opportunity to provide input. PacifiCorp's decision directly contradicted the Commission's statements in the 2017, 2019, and 2021 IRP orders in which the Commission has repeatedly reiterated that the IRP process requires information exchange and collaboration. In its Order declining to acknowledge PacifiCorp's 2021 IRP, the Commission discussed PacifiCorp's failure to satisfy Guideline 3, stating as follows:

“The PSC has been clear: ‘We view the IRP process as one in which parties are able to provide input and receive information on relevant issues, inputs, models, and results ... Therefore, the opportunity for all parties to examine and provide information during the IRP[’s] development, rather than after the fact, is an important aspect of the IRP process.’”¹⁵

Rather than withholding IRP modeling results from stakeholders during the planning process, Guideline 3 obligated PacifiCorp to share the modeling results with stakeholders and then discuss those results with stakeholders along with any uncertainties about the results caused by the changes due to the IRA, the OTR, greenhouse gas emissions rules, or any other challenges in the planning environment. PacifiCorp's failure to comply with Guideline 3 deprived UAE and other stakeholders an opportunity to evaluate modeling results in light of the planning challenges cited by PacifiCorp at the technical conference and provide input to PacifiCorp on how to address those challenges. PacifiCorp deprived UAE and others an opportunity to collaborate regarding the

¹⁵ 2021 IRP Order at 8-9 (quoting *PacifiCorp's 2017 Integrated Resource Plan*, Docket No. 17-035-16, Order issued March 2, 2018 at 7 [hereafter “2017 Order”]).

portfolio modeling results. As this Commission has previously noted: “Guideline 3 is clear: the IRP is to be developed ‘in consultation’ with stakeholders who must enjoy ‘ample opportunity for public input and information exchange *during the development of [the plan]*.’”¹⁶

PacifiCorp did not consult with stakeholders during the development of the IRP with respect to the preferred portfolio. Stakeholders first viewed the portfolio modeling results when PacifiCorp filed the initial IRP on March 31, 2023, which included fully-formed conclusions about the preferred portfolio and other modeling results. After that time, PacifiCorp held one public input meeting to address the IRP filing and then accepted stakeholder feedback forms if stakeholders had any comments or questions about the filing. This process did not grant to stakeholders a meaningful opportunity to study the initial modeling results and make suggestions or otherwise collaborate on the preferred portfolio selected by PacifiCorp. PacifiCorp’s decision not to provide stakeholders access to initial modeling results and to reach conclusions in the preliminary IRP filing deprived stakeholders of the opportunity to collaborate in the IRP process. PacifiCorp has yet again failed to satisfy its obligations pursuant to Guideline 3 and, as a result, this Commission should (yet again) decline to acknowledge the IRP.

II. The Proposed Sodium Nuclear Demonstration Project Has Not Been Fully Evaluated in the IRP.

UAE continues to be concerned about the Company’s inclusion of the Sodium demonstration project (“Sodium”) in the preferred portfolio.¹⁷ Guideline 1 defines “integrated resource planning” as a “utility planning process which evaluates all known resources on a

¹⁶ 2021 IRP Order at 14 (emphasis in original).

¹⁷ UAE submitted comments similar to those in this Section in response to PacifiCorp’s 2021 IRP. See *PacifiCorp’s 2021 Integrated Resource Plan*, Docket No. 21-035-09, Comments of the Utah Association of Energy Users filed March 4, 2022 at 2-4.

consistent and comparable basis.”¹⁸ Guideline 4(b) requires PacifiCorp’s IRP’s to include “[a]n evaluation of all present and future resources, including future market opportunities (both demand-side and supply-side), on a consistent and comparable basis.”¹⁹ The 2023 IRP includes the Natrium project in its preferred portfolio²⁰ but, unlike every other generation resource considered for inclusion in the 2023 IRP, the Company does not include Natrium in the supply-side resource table.²¹ Instead, the Company inputs confidential assumptions about the performance and price of the Natrium project into the portfolio models and allows the models to select the resource or not. This confidential price assumption is not shared with any stakeholders in the IRP process. This process fails to evaluate all resources on a consistent and comparable basis and, therefore, fails to comply with Guideline 4(b).

PacifiCorp’s use of assumed 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 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 2023 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

¹⁸ IRP Guidelines Order at 33 (Guideline 1).

¹⁹ *Id.* at 34 (Guideline 4(b)).

²⁰ *See* 2023 IRP Vol. I at 10 (“The 2023 IRP preferred portfolio includes the 500 MW advanced nuclear Natrium™ demonstration project, anticipated to achieve online status by summer 2030.”).

²¹ *See id.* at 181-188 (Tables 7.1 & 7.2).

table are determined based on the known capabilities of mature technologies and existing equipment, on third-party evaluations of generation technologies, on pricing information gleaned from submissions to RFPs, and on PacifiCorp's cost assumptions.²²

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.”²³ The IRP includes assertions about certain operating characteristics of the Natrium project, including capacity factor and ramp rate and the efficiency of the storage facility,²⁴ but no information is provided as to how those characteristics are known. PacifiCorp indicates in its Action Plan that “[b]y the end of 2023, PacifiCorp will finalize commercial agreements for the Natrium project.”²⁵ Of course, the Action Plan included in the 2021 IRP indicated that these commercial agreements would be finalized “[b]y the end of 2022.”²⁶ 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.

In addition to the fact that PacifiCorp does not include the cost and performance metrics of the Natrium project in the supply-side resource tables, the Natrium project's treatment within the

²² *See id.* at 163-167.

²³ *Id.* at 206.

²⁴ *See id.*

²⁵ *Id.* at 348.

²⁶ *See* 2021 IRP at 323.

modeling is essentially to require the model to select the project. During the October 24, 2023 technical conference the Company discussed the cost and selection of Natrium in the preferred portfolio. During that discussion, the Company indicated that it will not elect to move forward with the Natrium project unless it provides benefits for customers and that the assumed cost of the Natrium project “moves” in the model such that it this assumed price always provides benefits to customers.²⁷ By allowing the cost of Natrium to “move” such that it would never increase costs to ratepayers, PacifiCorp ensures that the Natrium project will essentially always be selected by the model. The Company attempts to justify this special treatment of Natrium by stating that it is in commercial discussions with Terra Power, the Natrium developer. This treatment certainly cannot be considered consistent and comparable with treatment of other resources.

Not surprisingly, 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. PacifiCorp has never explained how it can include an assumed price for the Natrium Project in the IRP models when commercial agreements are not yet final. 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 2023 IRP does not evaluate “all present and future resources . . . on a

²⁷ Technical Conference Livestream, from 1:25-1:30.

consistent and comparable basis,”²⁸ and the Commission should decline to acknowledge the portion of the 2023 IRP relating 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 thus far insufficient to reach any conclusions about the project.

UAE’s comments should also not be taken as criticism of the Company’s pursuit of the Natrium project and its efforts to keep confidential any information which might jeopardize the potential procurement of a new resource at a price that will yield ratepayer benefits. UAE’s comments simply note that the inclusion of the Natrium project in the IRP preferred portfolio at this point, without sharing key financial and performance information—which the Company may not yet have access to—is not consistent with the Guidelines. UAE looks forward to learning more about the Natrium project as more information is made available.

III. The Start Dates for the Second and Third Advanced Nuclear Projects Represent a Planning Risk that Must be Monitored.

The 2023 IRP preferred portfolio increases planning risks associated with advanced nuclear resources as compared to the preferred portfolio in the 2021 IRP because it modifies the in-service dates of all advanced nuclear projects so that commitments to build all of those projects would have to be made before any of them has been placed in service. The 2021 IRP preferred portfolio indicated that the Natrium project would be placed in service by summer 2028, and that PacifiCorp would add two additional advanced nuclear resources by 2038.²⁹ The 2023 IRP preferred portfolio

²⁸ IRP Guidelines Order at 33 (Guideline 1).

²⁹ See 2021 IRP at 307 (Table 9.17).

moves the start date for the Natrium project to 2030 and then moves forward the in-service dates of the other two advanced nuclear projects to 2032 and 2033.³⁰ The timing of these in-service dates introduces planning risks that must be addressed and monitored.

In the 2021 IRP preferred portfolio, the 10-year gap between the scheduled in-service date of the Natrium project (2028) and the in-service dates of the two additional advanced nuclear resources (2038) would have allowed the Company to A) ensure that the Natrium project could be procured on time and on budget and B) gain operational experience with Natrium before committing to additional advanced nuclear resources. The 2023 IRP preferred portfolio adjusts the scheduled in-service dates for all of the advanced nuclear projects in a way that eliminates any timing advantage. In response to a data request about the timing of the scheduled in-service dates of the advanced nuclear projects in the 2023 IRP, PacifiCorp states as follows:

In order to achieve a commercial operation date (COD) in 2032 and/or 2033, PacifiCorp would need to commit to the incremental nuclear plants prior to achieving COD for the first nuclear plant. PacifiCorp would employ reasonable contractual measures to mitigate risk of cost overruns and schedule delays in the event it commits to such incremental plants.³¹

There is risk associated with a proposed schedule in which PacifiCorp would have to commit to procure all three advanced nuclear projects before the first such project is online. The projects represent new technology, which A) may not perform as well as expected, B) may cost more than expected, and C) may take longer to construct than is expected. In response to data requests regarding the risks of cost overruns or construction delays regarding the projects, PacifiCorp asserted that it does not currently face such risks because it has not entered into any

³⁰ See 2023 IRP at 325 (Table 9.31).

³¹ Exhibit 2 (RMP response to UAE data request 3.7).

commercial agreements and that PacifiCorp will protect ratepayers from such risks through contract arrangements.³² UAE agrees that contract provisions can provide some protection for ratepayers from economic harm associated with project delays and cost overruns. UAE also understands that contract provisions intended to protect ratepayers in this way typically put upward pressure on contract prices, which will erode some of the assumed benefits of the projects.

The timing of the in-service dates for the advanced nuclear projects is not a reason for this Commission to decline to acknowledge the 2023 IRP preferred portfolio. UAE recommends, however, that the Commission take note of the risks associated with the schedule and ensure those risks are adequately addressed in future dockets related both to procurement of the advanced nuclear projects and to future integrated resource planning cycles.

IV. Data Presentation Suggestions to Improve the IRP Process

IRP filings present a great deal of information and some important details are lost in the presentation of that information. Among the key bits of information provided in an IRP filing are existing resources and new resources along with their associated capacity, capacity contribution, energy contribution and costs. The data regarding these key bits of information are not presented in a consistent way and are often summarized so that details regarding the resources is lost. Below, UAE identifies various portfolio and cost tables to illustrate this issue.

First, UAE recommends changes to the data presented in Table 9.31 to remedy an issue in the 2023 IRP where data regarding supply-side resource costs is presented differently from the way data regarding the preferred portfolio is presented. Tables 7.1 and 7.2 present data regarding the supply-side resources available for selection into the preferred portfolio. These tables include

³² *Id.* (RMP response to UAE data request 3.6(a)).

cost data on certain resource types such as renewable resources without storage, renewable resources with co-located storage resources, and standalone storage resources. Table 9.31 presents the resources selected in the 2023 IRP preferred portfolio. It identifies battery storage resources separate from renewable generation resources, but does not provide any detail as to whether the generation and storage resources are co-located or are standalone resources. This can easily be remedied by adding additional rows to Table 9.31 that show when renewable generation resources are co-located with storage resources (specifically a row for wind plus storage, and another row for solar plus storage) and when storage resources are standalone. This will provide a greater depth of understanding with respect to the resources selected in the preferred portfolio. UAE requests that the Commission direct PacifiCorp to include this additional information in Table 9.31 in future IRP filings.

Second, UAE recommends changes to the way data is presented in Tables 9.31, 9.32 and 9.33. Table 9.31 shows the installed capacity, by year, in the preferred portfolio. Table 9.32 shows capacity load and resource balances for existing and new resources for summer peak. Table 9.33 shows capacity load and resource balances for existing and new resources for winter peak. Unfortunately, the categories of resources in Table 9.31 differ from those in Tables 9.32 and 9.33, making it impossible to track how specific preferred portfolio resource types identified in 9.31 flow into the load and resource balances of Tables 9.32 and 9.33. This can easily be remedied by adding additional rows to Tables 9.32 and 9.33 in the existing resource section and adding additional rows to table 9.31 that show when renewable plus storage resources were selected (specifically a row for wind plus storage, and another row for solar plus storage). UAE requests

that the Commission direct PacifiCorp to include this additional information in Tables 9.31, 9.32, and 9.33 in future IRP filings.

Third, UAE recommends changes to the data as presented in Figures 9.60 and 9.62. Figure 9.60 displays how the preferred portfolio resources meet PacifiCorp's capacity needs over time. Figure 9.62 presents the projected capacity mix with preferred portfolio resources. In both of these Figures, data for wind and solar and other renewable resources are lumped together into a single generic "Renewable" category. By contrast, Figure 9.61, which presents the energy mix with preferred portfolio resources, provides broken-out data for separate types of renewable resources (Wind, Solar, and Other). This allows for greater understanding of the types of renewable resources that provide energy in the planning period, but obscures the types of renewable resources that provide capacity in that period. UAE recommends that the Commission direct PacifiCorp to provide detailed data on renewable capacity in Figures 9.60 and 9.62 such as that provided in Figure 9.61.

Comments

UAE appreciates the opportunity to file these comments regarding PacifiCorp's 2023 IRP. UAE makes the following recommendation:

- The Commission should decline to acknowledge the 2023 IRP because PacifiCorp failed to comply with Guideline 3;
- The Commission should decline to acknowledge the portion of the 2023 IRP relating to the Natrium project because PacifiCorp failed to comply with Guideline 1;

- The Commission should closely monitor the scheduling and planning risks associated with the timing of the advanced nuclear projects as included in the preferred portfolio and ensure that those risks are adequately addressed in future dockets;
- The Commission recommends that it direct PacifiCorp to make the requested changes to Tables 9.31, 9.32, and 9.33 and Figures 9.60 and 9.62 in future IRP filings.

DATED: December 12, 2023.

Respectfully submitted,



By:

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Certificate of Service
Docket No. 23-035-10

I hereby certify that a true and correct copy of the foregoing was served by email on December 12, 2023 on the following:

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