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Before The Public Service Commission Of Utah

IN THE MATTER OF PACIFICORP'S 2023 INTEGRATED RESOURCE PLAN	**Docket No. 23-035-10** **Reply Comments from Utah Clean Energy**

I. INTRODUCTION:

Thank you for the opportunity to provide reply comments on PacifiCorp's 2023 Integrated Resource Plan ("IRP"). PacifiCorp ("the Company") filed its amended 2023 IRP on May 31, 2023, and supplemental sensitivity studies on June 20, 2023. Pursuant to the scheduling order issued on June 27, 2023, parties including the Office of Consumer Services ("OCS"), Division of Public Utilities ("DPU"), and Western Resource Advocates ("WRA"), submitted comments in this docket on December 12, 2023. [1] Utah Clean Energy's reply comments will respond to statements made in each of these organizations' comments. Specifically, Utah Clean Energy:

1. Supports OCS' request that PacifiCorp include scenarios in future IRP modeling testing the effects of long-lasting extreme weather events occurring in a planning year to identify potential reliability issues, but UCE cautions against conducting modeling scenarios with preconceived outcomes in mind;
2. Agrees with DPU's assessment that the Company treated new fossil fuel resources skeptically, but doing so was not in violation of Guideline 4. The evaluation of resources was consistent with consideration of environmental impacts and the long-run public

[1] Utah Pub. Serv. Comm., Docket No. 23-035-10, Initial Comment of Office of Consumer Services (hereinafter "OCS Comment"); Initial Comment of the Division of Public Utilities (hereinafter "DPU Comment); Initial Comment of Western Resource Advocates (hereinafter "WRA Comment"), at https://psc.utah.gov/2023/03/02/docket-no-23-035-10/ (Dec. 12, 2023).

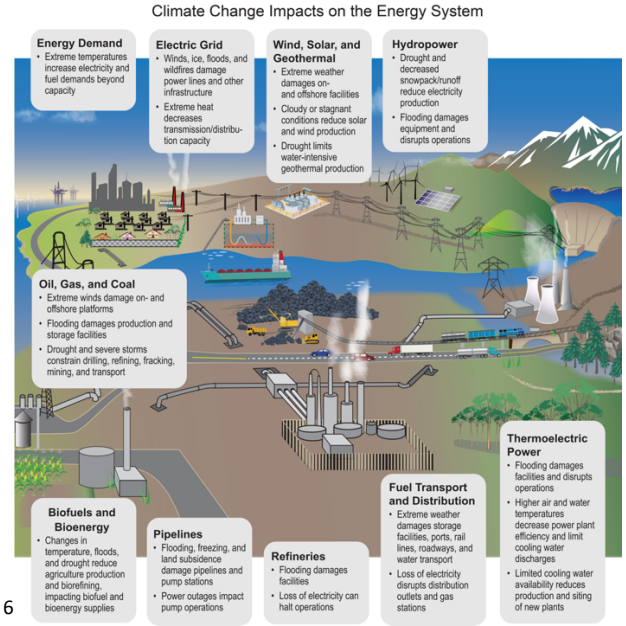
interest, which is in line with the Utah's IRP Guidelines; ("the Guidelines")[2] and previous Public Service Commission ("the Commission") Orders;[3] and

3. Supports the recommendation made by WRA and OCS that the 2023 IRP Update should be considered for formal acknowledgement.

II. MODELING IN FUTURE IRPS SHOULD INCLUDE SCENARIOS TESTING THE EFFECTS OF LONG-LASTING EXTREME WEATHER EVENTS ON SYSTEM RELIABILITY

a. PacifiCorp should include scenarios in its IRP modeling that test the effects of long-lasting extreme weather events occurring in a planning year.

In their comments submitted on this docket, the OCS rightly requests "that PacifiCorp include scenarios in its IRP modeling that test the effects of a long-lasting extreme weather event occurring in a planning year where significant amounts of fossil fuel resources are no longer operating, i.e. have been retired."[4] In the coming years, extreme weather events from human-caused climate change will continue to increase in duration and frequency.[5] These extreme events have and will continue to impact our electric grid, as described in the 5th National Climate Assessment:



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[2] Utah Pub. Serv. Comm., Docket No. 90-2035-01, Report and Order on Standards and Guidelines, available at https://pscdocs.utah.gov/electric/90docs/90203501/121607RprtOrdrStndrdsGdlnes6-18-1992.pdf (Jun. 18, 1992) (hereinafter "1992 Guidelines").

[3] Utah Pub. Serv. Comm., Docket No. 19-035-02, Order on PacifiCorp's 2019 Integrated Resource Plan, available at https://pscdocs.utah.gov/electric/19docs/1903502/313778190350205-13-2020.pdf (May 13, 2020) (hereinafter "2019 Order").

[4] OCS Comment, at 5.

[5] *Extreme Weather and Climate Change,* Nat. Aeronautics and Space Admin., https://climate.nasa.gov/extreme-weather/ (last updated Jan. 30, 2024).

[6] U.S. Global. Change Research Proj., 5th Nat'l. Climate Assessment, *Energy Supply, Delivery, and Demand* (2023), at https://nca2023.globalchange.gov/chapter/5#fig-5-1.

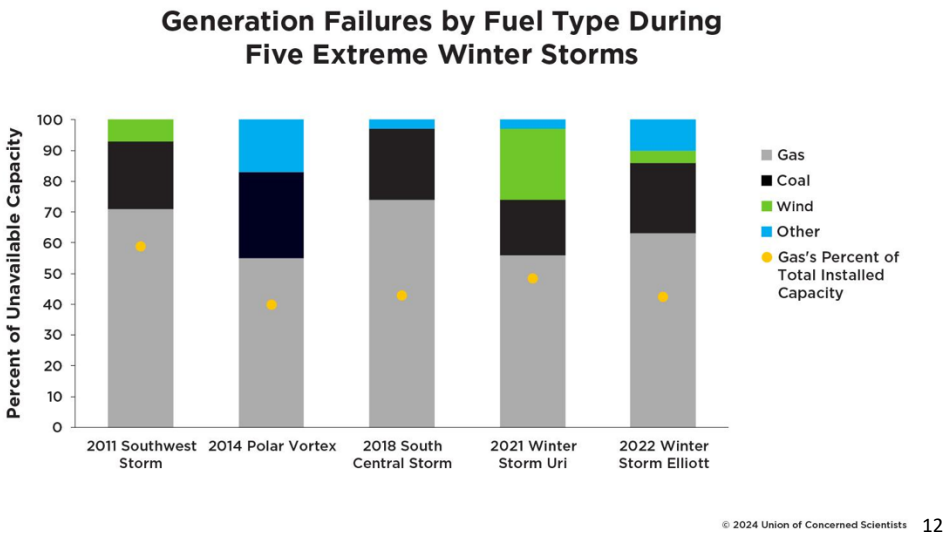
It is therefore imperative that the Company act to adapt its system to extreme weather events, while mitigating greenhouse gas ("GHG") emissions that are driving climate change and intensifying extreme weather. The Company's planning should thus include modeling that analyzes the effects of extreme weather events on meeting load, including sensitivity analyses of systems with higher penetrations of renewable generation and grid modernizing technologies.

b. Scenarios testing the effects of long-lasting extreme weather events should not be conducted primarily to identify reliability risks posed by renewable resources, but rather to also identify technology, grid, demand response and resources that can meet energy needs while also mitigating climate and carbon risks.

We caution against modeling with preconceived outcomes in mind, however. The OCS explained in their comments that the purpose of extreme-weather event modeling should be "to identify potential reliability issues when PacifiCorp's future system is assumed to be relying primarily on intermittent resources and batteries for reliability."[7] While modeling should be conducted to identify risks during extreme weather events, the Company and stakeholders should not overestimate the reliability of fossil resources or underestimate the proven value of grid enhancing technologies and renewables. Modeling should be conducted neutrally to identify risks posed to the system during extreme weather events regardless of resource type. Further, modeling should evaluate a variety of solutions including those that reduce carbon emissions and help mitigate climate fueled extreme weather risks.

Studies show grid planners may be vastly overestimating the resilience of fossil resources during extreme weather events.[8] Fossil fuel resources can in fact be a liability to grid resilience during extreme weather.[9] A recent report from the North American Electric Reliability Corporation ("NERC") shows that extreme cold-weather reliability risks cannot be attributed primarily to renewables.[10] Instead, NERC's report highlighted mainly heightened fuel supply risk of fossil generation during prolonged cold weather events.[11] An additional study by the Union of Concerned Scientists found that that fossil fuel generation failures were greater than their installed capacity:

[7] OCS Comment, at 5.
[8] Advanced Energy United, *Getting Capacity Right, How Current Methods Overvalue Conventional Power Sources* (Mar. 30, 2022), available for download at https://blog.advancedenergyunited.org/reports/getting-capacity-right-how-current-methods-overvalue-conventional-power-sources.
[9] Ashtin Massie & Aaron Schwartz, *Reality Check: Keeping the Lights on in Extreme Weather Events* (Dec. 12, 2023), https://rmi.org/reality-check-keeping-the-lights-on-in-extreme-winter-weather/.
[10] North American Electric Reliability Corporation, *2023-2024 Winter Reliability Assessment* (Nov. 2023), https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_WRA_2023.pdf
[11] *Id.* at 6.



Since fossil fuel infrastructure can and does fail during extreme heat and extreme cold weather events, we caution against modeling designed to identify potential reliability issues posed only by renewables during these events. Instead, modeling should be conducted neutrally to identify risks posed to system reliability during extreme weather events regardless of resource type, and model potential solutions including those that mitigate carbon.

III. WITH RESPECT TO TREATING RESOURCES CONSISTENTLY AND COMPARABLY, THE COMMISSION HAS NOTED THE COMPANY HAS DISCRETION TO CONTROL MODELING DECISIONS IN ITS VALUATION STRATEGY

In their comments on this docket, the DPU contends that the Company failed to evaluate natural gas and coal resources on a comparable basis with other resources by failing to run certain scenarios in a "more neutral fashion."[13] It asserts that the Company treats the Natrium and hydrogen peaker plants "optimistically" while treating natural gas and coal resources "pessimistically" and that this disparate treatment is a violation of Guideline 4.[14] UCE agrees that the Company's treatment of the Natrium and non-emitting peaker plants needs additional scrutiny.[15] However, UCE disagrees that the Company's treatment of fossil fuel resources is a violation of the Guidelines. The Company has discretion to control its valuation strategy, and the Guidelines require them to evaluate resources in a manner that minimizes environmental impacts.

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[12] Paul Arbaje & Mark Specht, *Gas Malfunction: Calling into Question the Reliability of Gas Power Plants,* Union of Concerned Scientists (Jan. 9, 2024), https://www.ucsusa.org/resources/gas-malfunction.
[13] DPU Comment, at 27.
[14] *Id.* at 17.
[15] Docket No. 23-035-10, Initial Comments of Utah Clean Energy, at 7–8, https://pscdocs.utah.gov/electric/23docs/2303510/331231UCECmnts12-12-2023.pdf (Dec. 12, 2023).

With respect to treating resources consistently and comparably, the Commission has noted the Company has discretion to control modeling decisions in its valuation strategy because "modeling capabilities and tools continue to evolve dynamically, and... the IRP process provides stakeholders an opportunity to discuss and consider developing methods."[16] The Commission has declined to "impose any additional requirements in connection with this modeling or the IRP process generally."[17]

Utah's IRP Guidelines are clear that all resources must be evaluated on a consistent and comparable basis.[18] Yet when evaluating resources, cost is not the only factor relevant to the Company's modeling process. The Guidelines and previous Commission orders state that regulatory and environmental risk are necessary considerations the Company must make when evaluating resources. Further, evaluating resources on a consistent and comparable basis must be done "in a manner consistent with the long-run public interest."[19]

The Commission has concluded that consideration of "the long-run public interest requires consideration of environmental ramifications of the production and consumption of electric energy services. All other things being equal, the Company will be expected to pursue resource acquisitions that minimize adverse environmental impacts as a method of reducing risk."[20] Therefore, the Company must evaluate the risks of relying on coal, natural gas, and CCUS at a time when it must also consider the impacts of climate change in line with long-run public interest and an evolving regulatory landscape for emitting resources. Thus, the IRP modeling can and should reflect these risks as part of their approach to evaluating resources on a consistent and comparable basis in a manner consistent with the long-run public interest.

In their comment, the DPU states that the IRP treats natural gas and coal pessimistically in part by assigning "shorter recovery periods to new natural gas plants."[21] Their concern lies with the Company's decision to model natural gas plants with a 10-year depreciable life. At the request of DPU, the Company ran model variant Scenario P24 that looks at the portfolio impacts of using a 40-year depreciable life instead, while noting that doing so "assum[es] the elimination of risks in siting, permitting and operating such resources through the end of a 40-year life (instead of 10 years, as assumed in the expected case)."[22]

However, the Company rightly concluded that the risks associated with assuming a 40-year life of natural gas assets are inconsistent with a least-cost, *least-risk* portfolio. We agree with the company that using a 10-year life for natural gas plants is a reasonable approach to "estimate external costs, which may be intangible, in order to show how explicit consideration of them might affect selection of resource options" as required by Guidelines 4(k).[23]

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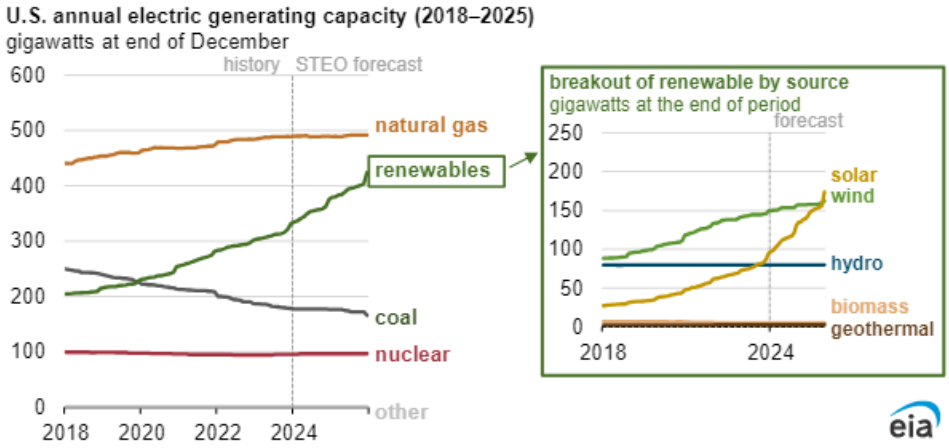
[16] 2019 Order, at 16.
[17] *Id.*
[18] 1992 Guidelines, at 15–16.
[19] *Id.*
[20] *Id.* at 17.
[21] DPU Comment, at 26.
[22] Docket No. 23-035-10, Rocky Mountain Power's Integrated Resource Plan Vol. I (Amended Final), at 246, https://pscdocs.utah.gov/electric/23docs/2303510/3281812023IRPFnlVlmI5-31-2023.pdf. (May 31, 2023).
[23] 1992 Guidelines, at 39.

Finally, DPU cited a S&P Global article to illustrate that natural gas power plants are still being built in the US.[24] While that is accurate, we wanted to provide additional context on electricity generation market trends. For that, we reference the U.S. Energy Information Administration's Short Term Energy Outlook ("STEO"), which indicates that near term growth in generation capacity will occur almost entirely in renewable resources, while natural gas capacity will be stagnant (see figure below).[25] Given these market trends and national plans to reduce carbon emissions from the electricity sector, it is prudent to consider the risks of stranded assets of new natural gas resources using available modeling tools (e.g. a shorter depreciable life) and doing so falls within the Company's planning requirements from the Guidelines and Commission orders.



IV. UCE LENDS ITS SUPPORT TO OCS AND WRA IN RECOMMENDING THE COMMISSION CONSIDER THE 2023 IRP UPDATE FOR FORMAL ACKNOWLEDGEMENT

In their comments, both WRA and OCS suggested considering the 2023 IRP Update for formal acknowledgement rather than the 2023 IRP alone.[26] UCE maintains its position that the Commission should acknowledge the 2023 IRP due to its planned addition of new renewable resources and associated storage, which represent the least-cost, least-risk plan, and are consistent with the long-run public interest. However, as all parties noted in their initial comments, the Company could have improved aspects of 2023 IRP planning process and should cure certain deficiencies in future IRP cycles. UCE thus sees the merits of recommending the Commission consider the 2023 IRP and IRP Update as a whole for acknowledgement, and lends its support to WRA and OCS on this matter.

[24] DPU Comment, at 29.
[25] U.S. Energy Information Admin., *Solar and wind lead grwoth of U.S. power generation for the next two years* (Jan. 16, 2024), https://www.eia.gov/todayinenergy/detail.php?id=61242.
[26] WRA Comment, at 15–16; OCS Comment at 5.

Thank you for the opportunity to provide reply comments.

Respectfully submitted this 31st day of January 2024,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was e-filed and served by email this 31st day of January, 2024, as follows:

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