



September 12, 2025

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RE: UT Docket No. 25-035-22  
DPU 1<sup>st</sup> Set Data Requests (1-6)

Please find enclosed Rocky Mountain Power's Responses to DPU 1<sup>st</sup> Set Data Requests 1.1-1.6.  
Also provided is Attachment DPU 1.4.

If you have any questions, please call me at (801) 220-2823.

Sincerely,

\_\_\_\_\_/s/\_\_\_\_\_  
Jana Saba  
Manager, Regulation

Enclosures

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25-035-22 / Rocky Mountain Power

September 12, 2025

DPU Data Request 1.1

### **DPU Data Request 1.1**

Regarding Tables 9.34 through 9.37 in Chapter 9 of the IRP, pp. 260-62: On what date were the numbers in these tables finalized? If different tables were finalized at different dates, please list each table's finalization date.

### **Response to DPU Data Request 1.1**

All numbers in Table 9.34 through Table 9.37 were finalized on March 31, 2025 with the publication of PacifiCorp's 2025 Integrated Resource Plan (IRP). The work papers supporting PacifiCorp's 2025 IRP were also finalized by the 2025 IRP publication on March 31, 2025. The public non-confidential work papers supporting PacifiCorp's 2025 IRP, including a public / non-confidential workpaper for Table 9.34 through Table 9.37, were posted on PacifiCorp's IRP website two weeks after the publication of the 2025 IRP.

## **DPU Data Request 1.2**

Regarding Tables 9.34 through 9.37:

- (1) Please describe the process used to select the preferred portfolio (as opposed to the other cases listed in the tables). What factors were used in this decision?
- (2) What risks, policies, and hypothetical scenarios were used to evaluate and compare the options?
- (3) At what date did the Company finalize its decision regarding which scenario would be the preferred portfolio?
- (4) In the previous IRP (2023), the Company stated that its selection of the final preferred portfolio (over other candidate portfolios) with respect to the risks and other factors to be considered was more of a judgement call, rather than a modeling analysis. (See, e.g., 2023 IRP Technical Conference of October 24, 2023 at around 1:17:00). Is this also true of the 2025 IRP?
- (5) Please provide a narrative as to why the preferred portfolio was selected over other specific candidates that performed well in Tables 9.34 through 9.37. In particular, please provide a narrative regarding why the preferred portfolio was selected over each of the following scenarios: Integrated Base HH; Integrated Hunter Retire MN; Integrated Base MR.
- (6) Please provide any internal Company memos, emails, or other documents or notes memorializing discussions where the Company discussed the preferred portfolio versus other portfolios in Tables 9.34 through 9.37.

## **Response to DPU Data Request 1.2**

Referencing the 2025 Integrated Resource Plan (IRP), the Company responds as follows:

- (1) Table 9.34 illustrates the process used to select the “Integrated Base MN” portfolio as the preferred portfolio. After applying a risk adjustment and end effects, the “Integrated Base MN” portfolio had the lowest present value of revenue requirements (PVRR) under the expected “Medium Gas / Zero CO<sub>2</sub>” price-policy scenario and so it was selected as the preferred portfolio.
- (2) Risks associated with weather, thermal outages, renewable shapes, hydro shapes, load, and market price variance were evaluated in stochastic short-term (ST) runs and used to calculate the risk adjustments shown in Table 9.34. Risks associated with changes in market prices and gas prices were evaluated across alternate price-policy scenarios as shown in Table 9.35 through Table 9.37. Risks associated with carbon dioxide (CO<sub>2</sub>) emissions were evaluated

through the “HH” and “SCGHG” price-policy scenarios. Additionally, PacifiCorp constructed some alternate portfolios to evaluate the risks associated with specific resource selections that were available for selection in the preferred portfolio, including the inclusion of the Natrium demonstration project and the installation of carbon capture and sequestration (CCS) technology at the Jim Bridger plant.

- (3) PacifiCorp finalized the 2025 IRP and all contents when it was filed on March 31, 2025.
- (4) No.
- (5) Please refer to the Company’s response to subpart (1) above.
- (6) The Company has not identified any internal memorandum, emails, or other documents or notes memorializing, within its current possession involving, discussions where the Company discussed the preferred portfolio versus other portfolios in Table 9.34 through Table 9.37.

**DPU Data Request 1.3**

Please provide all projections of interest rates for the cost of borrowing used as inputs in the 2025 IRP (in any description: e.g., interest rate, cost of debt, etc.). If different interest rates/costs of debt are projected for Rocky Mountain Power and developers/third parties, or in different contexts, please provide all projections. Did the Company also forecast the weighted average cost of capital or the common equity component of the cost of capital?

**Response to DPU Data Request 1.3**

PacifiCorp objects to this data request on the grounds that it would require a special study to produce such information and is therefore overly broad and unduly burdensome. Subject to and without waiving the foregoing objection, the Company responds as follows:

PacifiCorp's 2025 Integrated Resource Plan (IRP) uses a discount rate of 6.38 percent as shown in the calculated table provided below. This includes long-term debt, preferred and common equity. The calculation uses a cost of long-term debt of 5.09 percent. The weighted average cost of capital (WACC) is held constant over the entire IRP period. Note: PacifiCorp did not prepare an estimate of developer or third-party interest rates.

Capital Structure		Cost	Allowed WACC	Pre-Tax WACC	Post-Tax WACC
Long-Term Debt	55.80%	5.09%	2.84%	2.84%	2.14%
Preferred Equity	0.01%	6.75%	0.00%	0.00%	0.00%
Common Equity	44.19%	9.60%	4.24%	5.62%	4.24%
<b>Total</b>	100.00%		7.08%	8.46%	6.38%

#### **DPU Data Request 1.4**

Please provide all third-party studies, reports, and calculations that went into the Total Capital costs, Fixed O&M costs, and other Table 7.8 measures for the 100-hour iron air battery data.

#### **Response to DPU Data Request 1.4**

The 2024 National Renewable Energy Laboratory (NREL) Annual Technology Baseline (ATB) did not include a 100-hour storage option. As stated in PacifiCorp's 2025 Integrated Resource Plan (IRP), PacifiCorp's assumptions for proxy 100-hour iron-air batteries were informed by estimated costs and characteristics provided by Form Energy including availability year, capacity, build cost and more. These assumptions are provided in the supply-side resource table presented in PacifiCorp's 2025 IRP, Volume I, Chapter 7 (Resource Options). For further information on Form Energy's 100-hour iron-air technology, refer to Form Energy's website: <https://formenergy.com/technology/battery-technology/>.

Please refer to Attachment DPU 1.4 which provides a copy of the Company's primary reference document from Form Energy, specifically "Form Energy IRP Modeling Recommendations\_20230830".

In addition, please refer to Attachment DPU 1.4 which provides copies of other documents reviewed by the Company in relation to the 100-hour energy storage system resource option specifically "2022 Grid Energy Storage Technology Cost and Performance Assessment", "Form Energy Modeling Multi-Day Storage in PLEXOS\_20241015" and "Form Energy Navigating the PNW Energy Challenges\_20240626".

### **DPU Data Request 1.5**

The Division's understanding is that Form Energy supplied initial estimates for the 100-hour batteries (see IRP Vol. I p. 145; UAE Stakeholder Feedback Form dated 2025-01-08).

- (1) Did the Company have Form Energy provide an independently created report, or were the input assumptions developed in cooperation with the Company?
- (2) Does the Company have any data from a party other than Form Energy regarding the costs mentioned in question 1.4 above (Total Capital costs, Fixed O&M costs, etc.) for 100-hour iron air batteries?
- (3) If the Company made its own modification to estimates after reviewing Form Energy's initial estimates, please describe the Company's changes and estimation methodology.
- (4) In the Division's understanding, there are no utility-scale 100-hour iron air battery projects currently in operation (providing power to the grid). Please confirm or correct if mistaken.
- (5) There is an 85-MW Form Energy 100-hour battery project in Maine that is in development, but it is not yet providing energy to the grid. Does the Company know when this project is scheduled to be online?

### **Response to DPU Data Request 1.5**

The Company assumes that the reference to "question 1.4 above" is intended to be a reference to DPU Data Request 1.4. Based on the foregoing assumption, the Company responds as follows:

- (1) No. Form Energy provided what the Company understands to be publicly available documents that were neither an independently created report, nor were the input assumptions developed in cooperation with PacifiCorp. The Company did discuss the information with Form Energy to ensure costs and data were in line with the information obtained for other resources.
- (2) No. As stated on page 145 of PacifiCorp's 2025 Integrated Resource Plan (IRP), Volume I, and further discussed in PacifiCorp's response to the Utah Association of Energy Users (UAE) Stakeholder Feedback Form dated 2025-01-08 in Appendix M of PacifiCorp's 2025 IRP, Volume II, assumptions for proxy 100-hour iron-air batteries were informed by estimated costs and characteristics provided by Form Energy. The data sources that PacifiCorp reviewed for the 100-hour iron air resource option included in PacifiCorp's 2025 IRP are provided with the Company's response to DPU Data Request 1.4.

(3) In the discussions with Form Energy referenced in the Company's response to subpart (1) above, the Company verified whether the following costs were excluded from the cost estimates provided by Form Energy, and such costs were added by the Company as appropriate, using confidential costs specific to the Company's business practices:

- Allowance for Funds Used During Construction (AFUDC).
- Capital surcharge.
- Escalation.
- Property taxes.

Interconnection cost is included in the Company's PLEXOS modeling depending on the locational node in which each technology is being considered.

(4) At this time, the Company has the same understanding as the Division of Public Utilities (DPU).

(5) PacifiCorp objects to this request to the extent that it seeks information from a third party entity that is not within the Company's possession. Subject to and without waiving the foregoing objection, PacifiCorp responds as follows:

The Company does not have any information about the Form Energy project in Maine that is not already publicly available.

### **DPU Data Request 1.6**

The Division's understanding is that no particular cost was assigned to the Natrium resource. For example, see the Company's response to the 2/7/2025 Stakeholder Feedback Form (p. 446 of the pdf of Vol. II of the IRP): "Natrium was endogenously selected by the model as part of the least-cost, least-risk portfolio. At the January public input meeting, PacifiCorp explained that no costs associated with Natrium were included in the modeling process given that the Company has not yet reached an agreement with Terra Power". Does this mean that the Natrium project was assigned a cost of zero in the modeling, and that is why it was endogenously selected by the model? Please explain.

### **Response to DPU Data Request 1.6**

The Division of Public Utilities (DPU) is correct in its understanding that the Natrium project (also known as Kemmerer Unit 1) was assigned no costs in PacifiCorp's 2025 Integrated Resource Plan (IRP) PLEXOS modeling and that the model was able to endogenously select the resource. While the zero cost nature of the Natrium project was certainly a primary reason for the model to see the resource as valuable, assigning zero costs to the Natrium project is not necessarily the **only** reason the model endogenously selected Natrium. Natrium was not assigned any Western Resource Adequacy Program (WRAP) contribution (i.e. capacity contribution) in the model but was assigned an energy value which the model saw as valuable.

This modeling approach is consistent with a power purchase agreement that PacifiCorp recently signed with US SFR Owner, LLC, a subsidiary of TerraPower. In October, PacifiCorp anticipates filing an application with the Utah Public Service Commission seeking approval of its significant energy resource decision and waiver of requirements to solicit bids.