REDACTED
Rocky Mountain Power
Docket No. 25-035-55
Witness: Daniel J. MacNeil

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED
Rebuttal Testimony of Daniel J. MacNeil

February 2026

I. INTRODUCTION

Q. Please state your name, business address, and present position with PacifiCorp d/b/a Rocky Mountain Power ("Rocky Mountain Power" or "Company").

A. My name is Daniel J. MacNeil. My business address is 825 NE Multnomah Street, Suite 600, Portland, Oregon 97232. My present position is Commercial Analytics Adviser.

Q. Briefly describe your education and professional experience.

A. I received a Master of Arts degree in International Science and Technology Policy from George Washington University and a Bachelor of Science degree in Materials Science and Engineering from Johns Hopkins University. Before joining PacifiCorp, I completed internships with the U.S. Department of Energy's Office of Policy and International Affairs and the World Resources Institute's Green Power Market Development Group. I have been employed by PacifiCorp since 2008, first as a member of the net power costs group, then as manager of that group from June 2015 until September 2016. In my current role, I provide analytical expertise on a broad range of topics related to PacifiCorp's resource portfolio and obligations, including oversight of the calculation of avoided cost pricing in PacifiCorp's jurisdictions.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have provided testimony in California, Idaho, Oregon, Utah, Washington, and Wyoming dockets, and before the Federal Energy Regulatory Commission.

Q. Are you adopting the direct testimony of another Company witness in this proceeding?

A. Yes. I am adopting the pre-filed direct testimony of Company witness Rick T. Link.

II. PURPOSE

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. My testimony responds to the direct testimonies of the Utah Division of Public Utilities' ("DPU") witness David Williams, Office of Consumer Services' ("OCS") witness Cameron Irmas, and Western Resource Advocates' ("WRA") witness Karl Boothman. I address the recommendations made by the parties related to additional analysis and reporting for the Kemmerer Unit 1 ("KU1") project and the associated power purchase agreement ("PPA").

Q. Please summarize your rebuttal testimony.

A. As first-of-a-kind technology, KU1 has more uncertainty than a typical resource procurement, but much of the uncertainty is addressed via customer protections within the PPA. As a result, the KU1 PPA is expected to be cost effective for customers. KU1's long-term uncertainty is manageable and smaller than many of the other sources of uncertainty considered within the Company's Integrated Resource Plan ("IRP") and in the evaluation of specific long-term resource opportunities, such as in a request for proposal ("RFP") process. KU1's short-term uncertainty is also manageable within the Company's existing operations. In particular, KU1 would be just one of many large resources in the Company's portfolio that already create short-notice changes in operational requirements, in addition to the normal day-to-day variability in customer load. At the same time, the dispatchability and flexibility of the Natrium thermal storage capability increases its value and pairs well with portfolios with extensive wind and solar resources. KU1 would provide this capability without creating combustion-related emissions or increasing reliance on existing fuel supplies. No resource type is

without risk, but a portfolio with a variety of resource options with different capabilities and risks can avoid extreme outcomes where a single type of risk impacts many resources at the same time.

III. RESPONSE TO DPU TESTIMONY

Q. Please summarize the DPU's position in this proceeding.

A. The DPU recommends the Commission approve the Company's request for a waiver of the solicitation process under Utah Code Ann. § 54-17-501 and approve the PPA subject to providing additional analysis, which the DPU states will satisfy the requirements of Utah Administrative Code R746-430-4(1)(f)(ii) and Utah Code Ann. § 54-17-302(3)(c)(iv).[1] DPU states that it "commends the efforts of the Company to protect ratepayers from the possible cost overruns from a new nuclear power plant."[2] Additionally, Mr. Williams provides an analysis of the PPA, including risks and how the structure of the PPA is designed to mitigate the risks.[3]

Q. How do you respond to the DPU's argument that "because Natrium is a new design, . . . the Commission and stakeholders should be on the lookout for issues that might go along with a new design, such as delays"?[4]

A. The PPA facilitates TerraPower's demonstration of the Natrium technology while allowing benefits (but not technology or cost risks) to flow to PacifiCorp's customers throughout its service territories, including Utah. The flexibility within the PPA is specifically intended to accommodate potential delays and performance issues as the

[1] Direct Testimony of David Williams for the Division of Public Utilities (Jan.23, 2026) at 2, lines 41–48 (hereafter, "Williams Testimony").
[2] *Id.* at 2–3, lines 48–50.
[3] Williams Testimony at 11-13, lines 243-302.
[4] Williams Testimony at 9, lines 195-197.

Natrium technology is demonstrated and matures. Because KU1 is treated as a non-firm resource, the PPA provides flexibility to absorb delays and/or performance issues.

Q. How does the PPA account for the possibility of delays and outages due to the new design?

A. The PPA has adequately accounted for delays and outages. [redacted]

Q. How do you respond to DPU's assertion that the Company's prior IRP modeling of the Natrium plant's generation "lacked key details because information was not yet available"?[5]

A. PacifiCorp agrees that the 2025 IRP did not represent the Natrium demonstration project in the same manner as the proposed PPA. Specifically, the customer protections agreed to in the PPA are unlike the other long-term resource options that are evaluated in an IRP. It is unlikely that these customer protections in the KU1 PPA could be represented endogenously within the Company's PLEXOS model, so as to allow it to be assessed directly against other possible resource additions. Instead, separate

[5] Williams Testimony at 3, lines 60-62.

portfolio optimization with and without the project is likely to remain necessary so long as its outcome remains highly uncertain. However, the resources the Company procures to meet its ever-evolving resource needs will depend on a variety of factors beyond the possible status of KU1 and its associated PPA. Because of the customer protections it contains, the KU1 PPA [redacted]

Q. DPU contends that there are instances when the LMP at the Naughton node is negative because the plant must deliver power to the grid, even when other generation would have been shut off or curtailed.[6] Is this correct?

A. Yes. A negative LMP is typically a sign that resources that are eligible for production tax credits or renewable energy credits are being curtailed. When this occurs, [redacted]

Q. How do you respond to DPU's assertion that the Company must submit supplemental analyses related to the IRP, showing that "the project is likely to result in energy at the lowest reasonable cost to Utah customers"?[7]

A. PacifiCorp believes that its existing analysis adequately demonstrates that the purchase price for KU1, specifically, its innovative pricing structure, will result in energy at the lowest reasonable cost to Utah customers. [redacted]

[6] Williams Testimony at 10, lines 233-236.
[7] Williams Testimony at 3, lines 55-58.

[redacted] This is illustrated in Confidential Figure 1.

Confidential Figure 1: Naughton Operating Characteristics

Q. Please explain what is shown in Confidential Figure 1.

A. [redacted]

Q. Are there any other customer protections that could result in additional cost savings beyond those described above?

A. Yes. [redacted] the potential cost savings associated

with this PPA provision would be in addition to the estimates provided by the Company.

Q. What is the overall outcome of the innovative pricing structure for KU1?

A. KU1 is the lowest-cost alternative. Specifically, [redacted]

Q. Is it accurate to say that "[t]he benefits [of the PPA] are derived by comparing the costs in the preferred portfolio from the 2025 IRP with and without Natrium"?[8]

A. Yes. This is the analysis presented in the Company's application.

Q. Can uncertainty in the expected start date and output from KU1 as a first-of-a-kind resource impact the Company's long-term portfolio optimization and selection of long-term resources?

A. Yes, the uncertainties surrounding KU1 may have an impact on long-term portfolio optimization and selection of long-term resources. Because KU1 is a first-of-a-kind resource, its actual start date and output could vary. KU1 may achieve commercial operation on schedule, it may experience delays or reduced output, or—if insurmountable technical barriers arise—it may not ultimately deliver energy under the PPA. All of these possibilities fall within the normal range of uncertainty the Company manages when planning long-term resources.

Importantly, this uncertainty does not diminish the value of the PPA. The PPA is structured so that customers benefit if the project succeeds, while exposure is limited

[8] Direct Testimony on behalf of Western Resource Advocates by Karl G. Boothman (Jan. 23, 2026) at 5, lines 119–20 (hereafter, "Boothman Testimony").

if it does not. If KU1 reaches commercial operation as expected, it will provide a low-cost resource that enhances the Company's portfolio and contributes to long-term savings. In that case, the potential savings from alternative long-term resource options would be modestly reduced because KU1 would already be fulfilling part of the system's needs at favorable pricing. The Company also is not precluded from procuring long-term resources that provide extra benefits if KU1 is delayed or cancelled. Against the backdrop of future uncertainties the Company faces, the status of KU1 is a relatively small factor.

If KU1 is delayed or produces less than expected, the Company's existing operating processes already account for such variability. KU1 is one of many resources whose timing and output can shift, and the Company routinely manages these dynamics without compromising long-term portfolio optimization.

Q. Is the expected status of KU1 (i.e., operational or not) likely to be a major driver of many long-term resource decisions?

A. No. The intent of IRP modeling and long-term resource valuation is to identify portfolios of resources that perform well under a range of possible future resource conditions. Because the Company will not rely upon KU1 for firm power under the current PPA, the key difference between a portfolio with KU1 and one without is the size of the resource supply stack and the marginal energy resource in each hour. Many resources would be economic or uneconomic under both conditions, such that the decision would be the same regardless of the eventual outcome for KU1.

In addition, while the KU1 project will impact supply on the Company's system by up to 500 MW, a change in natural gas prices would impact the roughly four

gigawatts of natural gas-fired resources in the Company's portfolio, as well as the much larger quantity of natural gas-fired resources across the west that influence market prices. Similarly, changes in the Company's load or loads of other utilities also influence market prices, and KU1's size pales in comparison with the uncertainty in the expansion of data center demand across the west. Recent changes in federal tax policies and environmental compliance requirements have also repeatedly changed the Company's planning and procurement over the last several years. As a result, the range of possible future conditions considered in price-policy or load scenario analysis is far broader than the uncertainty associated with KU1, making KU1 just one factor among many in other long-term resource decisions.

Q. Does the Company's typical system operations include other generator variations that are comparable to KU1?

A. Yes. The Company's portfolio includes 19 coal and gas-fired units that are in excess of 200 MW. All of these units periodically experience unplanned outages and may be unavailable for periods ranging from hours to days. While the uncertainty associated with KU1 at this point is currently higher than for existing units, the Company actively manages its fleet, fuel supply, and market position in response to one or more large units going offline. As a result, responding to the availability of KU1 is comparable to the portfolio management the Company already performs.

Q. Does the Company's typical system operations include additional variation beyond the availability of individual dispatchable units?

A. Yes. The Company's portfolio currently includes over five gigawatts of wind resources that may or may not generate energy depending on wind speeds, as well as over three

gigawatts of solar resources that may or may not generate depending on the position of the sun and cloud cover. The Company's resource needs are also driven by its retail load, which also varies due to weather. Wind, solar, and load can be forecasted, but represent large sources of uncertainty, even on a day-ahead basis. The Company's portfolio must be able to respond to changes in load and resources from moment to moment, in coordination with the Western Energy Imbalance Market ("WEIM"). The ultimate intent of KU1 and the Natrium technology is to actively dispatch to counteract changes in the load and resource balance, reducing the volatility of the system. Under the PPA, KU1 is incentivized to reduce volatility, and the Company's system operations are well equipped to manage both expected and unexpected absences by KU1.

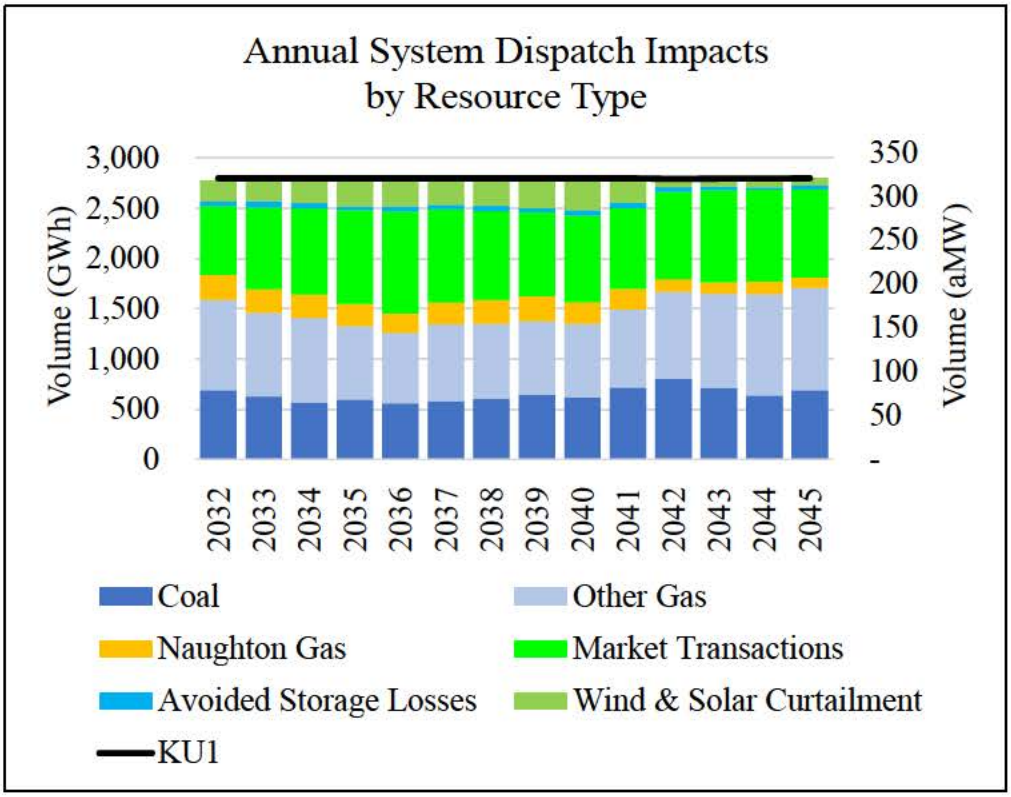
Q. How would the Company's system dispatch change if KU1's online date is delayed by three years?

A. Even if KU1 is delayed, the Company has multiple tools to manage the impact. Because of the scale of the Company's portfolio, even an unexpected and prolonged loss of a unit can generally be managed without causing major disruptions or forcing expensive replacements. This is particularly true since KU1 and Naughton are sharing an interconnection, and Naughton can be dispatched if needed. The exact change to the Company's dispatch, however, would depend on how much notice the Company receives that conditions are likely to be different from expectations. With several years of notice, long-term resource procurement is possible. For wind, solar, and battery storage resources, there is typically two to four years between contract execution and the scheduled commercial operation date. However, the effective time needed to respond to a change in resource need (like a delay of KU1) would be longer as analysis

of possible alternatives and contract negotiation would likely add several months prior to execution. Comprehensive analysis in an RFP would likely take even longer, depending on the stage in the RFP process when a change became known. Any long-term resource procurement would also likely extend beyond the updated KU1 commercial operation date, so the status of KU1 would not be changing during the majority of the contract term.

With a year or two years of prior notice, the Company would adjust its purchases of coal, natural gas, and market purchases. Coal contracts typically include annual volume elections (potentially subject to minimum take requirements), with variations in coal demand at each plant managed via the onsite coal pile, though larger changes in coal demand could be restricted by minimum or maximum take requirements. A portion of the Company's natural gas and market purchase requirements are procured on a forward basis, and both requirements could be impacted by the presence or absence of KU1. Consistent with the Company's hedging policies, a change in the need for natural gas as a result of a delay in KU1 could potentially result in larger hedging transactions on a forward basis, with a portion of the increase met with day-ahead natural gas supply, based on specific daily needs. Figure 2 presents the forecasted changes in generation as a result of the removal of KU1 from the 2025 IRP preferred portfolio, assuming that no long-term resource changes occurred.

Figure 2: System Dispatch Impacts of KU1



Q. Please describe the system dispatch impacts if KU1 delayed by three years and was not included with the rest of PacifiCorp's 2025 IRP preferred portfolio, as indicated by Figure 2.

A. Natural gas generation is the largest category of system dispatch impacts when KU1 is not present, comprising approximately 39% of KU1's total annual output in 2032-2034, of which roughly one-fifth occurs at Naughton units. Market transactions are the next largest category, comprising approximately 28% of the total, with most of that being purchases. The final categories are coal generation (22%), wind and solar curtailment (eight percent), and reduced losses on storage resources (two percent). The Company has flexibility in each of these categories and can adjust its supply in response to the availability of output from KU1.

Q. Please describe the system dispatch impacts if KU1 was operational but experienced frequent outages, which was highlighted as a concern by DPU witness David Williams.[9]

A. If KU1 has frequent outages, the Company will still get value—just proportionally less—and the Company's system can absorb those outages without major disruption because natural gas and coal fuel and market purchasing are flexible. That is, if KU1 was only operational part of the time, KU1's reduced generation would not avoid the full volume of natural gas, coal fuel, and market purchases shown in Figure 2 but would instead avoid a prorated amount. Because fuel supply and market transactions are relatively flexible from day to day, it is reasonable to assume that the expected benefits of the KU1 PPA would be reduced in proportion to the frequency of outages. While the specific changes in system dispatch vary by time of day and throughout the year, differences in the value of KU1's output would be mitigated by the innovative pricing structure in the PPA.

Q. Please describe the system dispatch impacts if KU1 ceased providing generation to retail customers in 2035, after operating for three years, as indicated by Figure 2.

A. Because Figure 2 identifies short-term dispatch changes, i.e., not including differences in long-term resource procurement, the results in each year are independent of the conditions in prior years. In 2035–2045, the largest category is natural gas generation at approximately 36% of KU1's total annual output. Relative to impacts in 2032–2034, market transactions increase slightly to 32% of the total, while coal generation (23%),

[9] Williams Testimony at 9, lines 211–14.

wind and solar curtailment (seven percent), and reduced losses on storage resources (two percent) make up the remainder. If generation ceased, or was anticipated to be unlikely, the Company would have the opportunity to procure alternative resources that would help reduce its consumption of natural gas and coal, and its market purchase costs. As a result, the increase in these categories indicated in Figure 2 could potentially diminish over time.

Q. Continuing the example above, if the KU1 PPA had instead included an end date in 2034, with the option to renew annually if both parties agreed one year in advance, would it have been subject to the requirements for significant energy resources under Utah Code Ann. § 54-17-102?

A. Perhaps not. The definition of a significant energy resource specifies that it applies to contracts with a term of ten or more years. A contract ending in 2034 would be less than ten years from execution, and the term from expected commercial operation to the end date would be even shorter. Each year that such a contract was renewed would represent a further commitment to an effective term of one year. [redacted]

Q. If KU1 never reaches commercial operation, would the Company's system dispatch impacts, planning, and procurement be appreciably different from a cessation of generation after commercial operation is achieved?

A. No. Other than differences in timing, the Company would respond to the ongoing expected level of generation in comparable ways, by managing short-term energy

supplies and looking for long-term resource opportunities that are a good fit for its evolving capacity and energy needs.

Q. Would wind and solar resources be a ready replacement for KU1's output?

A. No. Wind and solar on their own cannot replicate KU1's contribution to the Company's portfolio without large amounts of energy storage. As indicated by Figure 2, KU1's minimum output level and thermal storage limits result in curtailment of wind and solar in a relatively small portion of the hours in the year. KU1 is forecasted to displace coal and natural-gas generation with roughly 60% of its output, even though those fossil units make up only about 25% of the annual load in the 2025 IRP preferred portfolio. KU1 therefore produces most of its energy during hours when fossil generation is actually on the margin and can be backed down.

By contrast, on their own, additional wind and solar resources would likely have high output when existing renewable resources are already plentiful and low output when existing renewable resources are limited and reliance on coal and natural gas is high, likely resulting in more curtailment and less displacement of coal and gas relative to KU1. To produce output comparable to KU1, significant energy storage would be required to shift not just the excess wind and solar generation into a baseload generation profile but to drive the net supply down to a level comparable to the minimum output of KU1 when renewable resources are plentiful and increase output when renewable resources are limited.

Q. What replacement resource is the closest fit for KU1's output?

A. No resource is a perfect replacement for KU1, but a combined cycle combustion turbine ("CCCT") would have many similarities. Given forecasted gas prices and the absence

of emissions costs, a CCCT would likely operate on many days each year but would likely dispatch down to its minimum operating level when renewable resources were plentiful, such as during the daylight hours. Unlike KU1, a CCCT could also operate at maximum capacity or cycle offline for extended periods, if warranted by the relative prices for natural gas and electricity.

Q. Does KU1 provide a unique resource opportunity?

A. Yes. The dispatchability and flexibility of the Natrium thermal storage capability increases its value and pairs well with portfolios with extensive wind and solar resources. KU1 would provide this capability without creating combustion-related emissions or increasing reliance on existing fuel supplies. While no resource type is without risk, having a variety of resource options with different capabilities and risks can help dampen extreme outcomes where a single type of risk impacts many different resources in the Company's portfolio.

Q. How do you answer the following question from Mr. Williams: "Would the preferred portfolio have looked significantly different if Natrium had been assigned the PPA energy costs as shown in Workpaper 1"?[10]

A. The 2025 IRP preferred portfolio is unlikely to have changed significantly if the Natrium resource had been assigned the forecasted PPA energy costs. First, the PPA energy costs result in a benefit, relative to not having the KU1 facility, so it is economic for it to be included in the 2025 IRP preferred portfolio. Second, as discussed above, there is no perfect replacement for the energy provided under the KU1 PPA. The most comparable resource might be a CCCT, but this resource would have a sizeable fixed

[10] Williams Testimony at 18, Lines 405-409.

cost and would also provide capacity, potentially inducing further shifts in the mix of energy-focused and capacity-focused resources in an optimized portfolio. As an energy-only resource, much of the changes resulting from KU1 would impact the energy mix, specifically, coal and natural gas fuel consumption and market purchases as shown in Figure 2, rather than long-term resource additions. As a result, while KU1 has a maximum output of 500 megawatts and annual energy production of around 300 average megawatts, it is unlikely that long-term resource additions would add anywhere near those amounts. That said, because wind and solar resources typically have a capacity factor of around thirty percent, 500 megawatts of nameplate capacity additions from either of those resources would only result in energy production of around 150 average megawatts (distributed seasonally and throughout the day based on weather conditions), so any installed quantities could appear to be proportionately larger than KU1 while having smaller overall impacts.

Q. Does the Company have a current analysis demonstrating the optimal resource changes with and without the KU1 resource?

A. Not at this time. Because details associated with the eventual KU1 PPA were not available at the time the 2025 IRP was prepared—specifically the provision of non-firm energy and customer protections within the pricing provisions—the portfolio analysis in the 2025 IRP does not provide a good indication of the portfolio impacts associated with the KU1 PPA. In addition, changes in tax policy, specifically expiring tax credits for wind and solar resources, have drastically changed the resource procurement landscape since the 2025 IRP was prepared, such that the prior results are of limited applicability going forward. All planning diminishes in relevance as time

marches on and conditions change, particularly so when conditions change drastically and in short order. The Company will shortly be producing this analysis as part of its 2025 IRP Update, which will be filed on March 31, 2026.

Q. Does the Company plan to continue evaluating resource alternatives with and without the KU1 resource?

A. Yes. The Company plans to evaluate portfolios both with and without KU1 in each IRP and IRP Update, including its 2025 IRP Update. Confidential analysis of the KU1 PPA can be prepared based on these results and provided to stakeholders in this proceeding. In addition to planning, long-term resource procurement routinely considers a range of conditions, such as different price-policy scenarios, and analysis with and without KU1 can identify possible upsides and downsides that are not apparent in the expected conditions, potentially influencing the procurement results.

Q. Please identify at what point in time the project would be in jeopardy if the Commission has yet to approve the SER.

A. The timeline for this opportunity is driven by the Department of Energy ("DOE") Advanced Resource Demonstration Program ("ARDP"). The KU1 project is a unique partnership with the DOE and exists solely because of the ARDP. The ARDP provides funding to the KU1 project and partially satisfies Nuclear Regulatory Commission ("NRC") licensing requirements. The schedule required to meet ARDP and NRC requirements did not and will not accommodate traditional utility procurement timelines. The standard relevant to a waiver does not turn on the *timing* of the SER approval; rather, the core issue is that execution of the PPA—without the constraints of competitive bidding—was necessary to demonstrate sufficient offtake to satisfy federal

funding requirements and deadlines.

The Company has provided ample evidence demonstrating that Utah Code Ann. § 54-17-501(1)(b) applies because this is clearly a time-limited technical opportunity that confers substantial customer value. Absent the Company's entry into the PPA, TerraPower may not have secured federal funding or related support, and without that funding and support, the Project likely could not have gone forward. And with respect to the value, the Application, the testimony of Company witness Mr. Link, and this testimony clearly establish the value of the KU1 Project to customers.

In addition, denial of the SER could ultimately prevent customers from receiving the benefits of the KU1 Project because the Company would be unable to satisfy the conditions precedent to the PPA. That said, a delay, although problematic, does not necessarily create an imminent risk that the Company will lose the PPA or that TerraPower will terminate the PPA. However, prolonged or extensive delay could reasonably incentivize TerraPower to pursue alternative offtake arrangements and, [redacted] There is no single, definitive date at which delay will jeopardize the project; rather, the risk increases as delays accumulate and TerraPower evaluates other options. In any event, approval of the waiver of solicitation requirements is warranted because a protracted RFP process would have rendered the PPA infeasible or, at minimum, materially increased the risk of losing critical time-sensitive federal funding necessary to the success of the project.

IV. RESPONSE TO OCS TESTIMONY

Q. Please summarize the OCS's recommendations in this proceeding.

A. The OCS states it reviewed the application and the Natrium project appear to meet the

requirements for a waiver under the Energy Resource Act.[11] The OCS further recommends approval of the significant energy resource decision as a resource decision that minimizes risks to customers while supporting many of the public interest factors under Utah Code Ann. § 54-17-302(3).[12] Finally, the OCS recommends the Company report on plant performance.[13]

Q. How do you respond to the OCS's recommendation that the Utah Public Service Commission ("PSC") require PacifiCorp to report plant performance and other key metrics so that the PSC and other interested parties will have sufficient information to review any future decisions on plant acquisition or PPA changes?[14]

A. The Company agrees to report to the Commission and Parties on the performance and other key metrics of KU1 that are within PacifiCorp's possession following the first year of KU1's commercial operation and each year thereafter. That said, while the PPA identifies [redacted], any change or amendment that meaningfully changes the Company's commitments or responsibilities under the PPA would need to be reevaluated in the future. The Company will abide by any relevant regulatory requirements at that time.

V. RESPONSE TO WRA TESTIMONY

Q. What are WRA's recommendations in this proceeding?

A. WRA opines that the PPA is a fair arrangement that "effectively protects ratepayers and the utility from excessive financial and operational risks"[15] and granting the requested

[11] Direct Testimony of Cameron Irmas for the Office of Consumer Services (Jan.23, 2026) at 4, lines 81–84 (hereafter, "Irmas Testimony").
[12] Irmas Testimony at 13, line 244.
[13] Irmas Testimony at 13, lines 246–48.
[14] *See* Irmas Testimony at 12, lines 221–28.
[15] Boothman Testimony at 5, lines 83–86.

waiver is reasonable.[16] WRA concludes that it does not oppose approval of the application but requests the Company explain how the Natrium project would impact system dispatch or resource acquisitions under various scenarios.[17]

Q. How do you respond to WRA's assertion that there remains uncertainty in the revenue and cost allocation related to PacifiCorp's water rights?[18]

A. Allocation percentages amongst PacifiCorp's states related to the Naughton water asset will be consistent with the allocation of the Naughton plant, where those costs are currently recovered. Because these costs are already relatively small, the benefit of cost sharing between ongoing Naughton operations and US SFR under the Water Use and Conveyance Agreement ("Water Use Agreement") while the PPA is in effect will also be small. In the event that PacifiCorp receives revenue for water under a non-PPA scenario (where the Water Use Agreement remains in place), the allocation percentages would continue to be consistent with the allocation of the Naughton plant. [redacted]

Q. How do you respond to WRA's assertion that they do [redacted] generate clear long-term customer benefits at this stage?"[19]

A. The long-term benefit of the [redacted] Although it is speculative and PacifiCorp will be required to obtain regulatory approvals that are necessary if it

[16] *Id.* at 15, line 261.
[17] *Id.* at 15, lines 263–65.
[18] Boothman Testimony at 11, lines 184–85.
[19] Boothman Testimony at 11–12, lines 196–98.

chooses [redacted]

Q. How do you respond to WRA's assertion that "the Company's PLEXOS model estimates LMP based on assumptions that are more static than real markets."?[20]

A. While it is true that the PLEXOS model does not include day-ahead unit commitments and uncertainty in loads and resources leading up to actual dispatch, [redacted]

Q. Does the [redacted] "add a major layer of uncertainty to the actual benefit of KU1 to ratepayers"?[21]

A. While KU1 represents a notable addition to the Company's portfolio, it is not a major source of uncertainty compared to changes in market prices, loads, and federal tax

[20] Boothman Testimony at 12, lines 203–05.
[21] Boothman Testimony at 12, lines 219–21.

policy. [redacted]

Q. Does this PPA affect or compromise PacifiCorp's pursuit and operation of a least-cost system, given the uncertainty of KU1 and the various provisions in the PPA?

A. Not significantly. The presence of KU1 as an energy resource in PacifiCorp's portfolio would increase energy supply and slightly reduce marginal costs. While it is operational, KU1 would be expected to operate continuously, though the hourly impact would vary as a result of its storage capability. Absent any other changes in PacifiCorp's portfolio, marginal costs would be slightly higher if KU1 did not operate, and that increase would make long-term resource additions slightly more cost-effective. But it would only change a resource decision that was already very close to being cost-effective. Given PacifiCorp typically evaluates a range of price-policy scenarios, stochastic conditions, and other scenarios, any such resource would already have been cost-effective under a number of those scenarios, and the removal of KU1 would only make it slightly more so. Because KU1 supplies energy but not capacity, its presence in the portfolio could cause selections to shift slightly away from energy resources and toward capacity resources, such as from solar to battery storage, or from combined solar and storage to stand-alone storage. Unlike modeling in the IRP, which allows for flexible timing, quantities, and co-location of different resource types, actual long-term resource procurement is somewhat limited by the actual offers received and is thus

lumpy. As a result, the change in price and operational characteristics between the last bid selected and the first bid that was not selected could exceed the impact associated with the presence of KU1 in the portfolio. In short, the uncertainty associated with KU1 would not prevent the Company's consideration and development of other resources.

Q. Please explain exactly how the presence of KU1 may or may not impact system dispatch or resource acquisitions should one or more Naughton units retire.

A. Absent other actions, retirement of a Naughton unit would result in a megawatt for megawatt reduction of Naughton's interconnection capacity. The remaining Naughton units and the KU1 facility, as a surplus interconnection resource, would then be restricted to operation within the reduced interconnection limit. In some cases, generator replacement interconnection service can allow interconnection capacity to be transferred from a retiring resource to a replacement resource interconnecting at the same point. Studies by PacifiCorp Transmission would be required to ensure that the change does not negatively impact the system and can be approved. It is possible that KU1 could be approved as a replacement resource in the event of a retirement of a Naughton unit, but the Company would evaluate all available alternatives at that time before committing to retirement of Naughton and particular replacement resources. Designation of KU1 as a replacement resource would also be subject to the agreement of US SFR.

Q. Was a Naughton unit assumed to retire in PacifiCorp's 2025 IRP?

A. Yes. PacifiCorp's 2025 IRP preferred portfolio included the retirement of Naughton 1 at the end of 2042.

Q. Was the retirement of Naughton 1 accounted for in the economic analysis presented in the Company's application?

A. In part. For the purpose of calculating the forecasted benefits presented in the Company's application, Naughton 1 was treated as unavailable, equivalent to a forced outage, but the interconnection capacity limit was not modified to reflect that retirement. The results in that timeframe are consistent with a portion of KU1's capacity being accepted as a replacement resource for Naughton 1. As discussed above, several other decision points would be required for that to become effective.

VI. CONCLUSION

Q. What is your recommendation to the Commission?

A. The Company requests that the Commission approve the Company's decision to enter into the PPA for the KU1 Project and grant the waiver of solicitation requirements request. As evidenced herein and throughout the Company's application and materials provided in support thereof, the KU1 Project and the PPA present a unique and time-limited opportunity to provide value to the Company's customers. Approval of both the SER decision and the waiver are in the public interest.

Q. Does this conclude your rebuttal testimony?

A. Yes.