REDACTED
Rocky Mountain Power
Docket No. 22-035-30
Witness: Craig M. Eller

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED
Direct Testimony of Craig M. Eller

June 2022

INTRODUCTION OF WITNESS AND QUALIFICATIONS

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

A. My name is Craig M. Eller. My business address is 1407 West North Temple Street, Suite 310, Salt Lake City, Utah 84116. My present position is Vice President, Business Policy and Development for Rocky Mountain Power.

Q. How long have you been in your present position?

A. I have been in my present position since July 2020.

Q. Please describe your education and business experience.

A. I have a Bachelor of Science in Mechanical Engineering from the University of Nebraska. I have been employed with PacifiCorp since July 2020 as the Vice President of Business Policy and Development responsible for strategic planning, stakeholder engagement, regulatory support, and development and execution of major transmission projects. Prior to my current role, I worked at Northern Natural Gas Company, an affiliate of the Company, from 2007 through 2020 in various business development, commercial marketing and engineering roles.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have previously filed testimony on behalf of the Company in regulatory proceedings in Utah, Wyoming, and Idaho.

PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's application for Commission approval of a proposed amendment to the Electric Service Schedule No. 34 ("Schedule

34") Renewable Energy Service Contract ("RESC") between Company and Stadion LLC ("Stadion") ("Third RESC Amendment"), which is attached to my testimony as Confidential Exhibit RMP___(CME-1). My testimony provides a brief background of the RESC and associated Renewable Resource Appendices, and an overview of the Third RESC Amendment terms.

Q. Are any exhibits included with your testimony?

A. Yes. Included with my testimony are two confidential exhibits. Confidential Exhibit RMP___(CME-1) provides the Third RESC Amendment, as previously described, and provides several hypothetical monthly bills assuming the changes discussed in my testimony. My testimony also discusses Confidential Exhibit RMP___(CME-2), which is the revised Appaloosa I-B Resource Appendix.

BACKGROUND

Q. Please provide a summary of the RESC between the Company and Stadion.

A. The RESC between the Company and Stadion (may be collectively referred to as the "Parties"), which was filed with the Commission on June 21, 2016, in Docket No. 16-035-27, and approved by the Commission on August 29, 2016,[1] allows Stadion to procure, through the Company, sufficient renewable resource supply to meet 100 percent of the annual electric energy needs of its Utah-based data center facilities ("Utah Facilities"). The RESC includes terms consistent with Utah Code section 54-17-506 and Schedule 34, and generally incorporates the following: i) includes, where possible, the terms and conditions included in Company's standard master electric service agreement, ii) defines the terms and conditions under which the Company will

[1] Order Memorializing Bench Ruling Approving Renewable Energy Service Contract with Facebook, Inc. Issued: August 29, 2016.

acquire renewable resource supply on Stadion's behalf ("Customer Renewable Resource(s)"), iii) sets rates and charges for the electric service provided by the Company, iv) contractually obligates Stadion to the full cost, including termination costs, of all the Customer Renewable Resources, and v) allows additional data center phases to be added over the term of the RESC.

Q. Please provide a summary of how the Company acquires a renewable resource supply on Stadion's behalf?

A. Stadion may request the Company negotiate and execute power purchase agreements ("PPA") for renewable energy supply and renewable energy credits ("RECs") from a new Customer Renewable Resource(s). Prior to Company's execution of a PPA, the RESC requires Stadion and Company enter into a separate agreement (the Resource Appendix) to specify the terms and conditions applicable to Company's procurement of the Customer Renewable Resource and to outline various aspects of the PPA, including but not limited to, project size, commercial operation dates, point of delivery, contract price and other applicable charges, termination provisions any applicable condition(s) precedent provisions for the procurement of Customer Renewable Resources, treatment of PPA performance guarantee passthroughs, etc.

Q. How many Resource Appendices have Stadion and the Company entered into?

A. The Company has procured and executed [redacted] for a total of [redacted]. Each of these PPAs have a corresponding Resource Appendix that further provide terms and conditions associated with each contract.

Q. Has the RESC been previously amended?

A. The Parties have amended the RESC on two previous occasions. The first amendment, executed in February 2017, extended the termination date associated with an RESC condition precedent to March 2, 2018 (“CP Termination Date), while the second amendment, executed in February 2018, extended the CP Termination Date to December 31, 2018. The Company provided formal notice, along with the fully executed amendments, in an August 8, 2018, filing in Docket No. 16-035-27.

Q. What does the Third RESC Amendment seek to accomplish?

A. The changes are divided into two categories based on applicability. The first category is applicable for both Stadion’s existing facilities (“Facility Phase 1”) and any potential facility expansions (“Future Phase(s)”) that may exist in the future. Changes in the first category include clarifications of the effective date and certain aspects of the billing process as well as revisions to the calculation of the Early Termination Payment. The second category of changes is applicable only to any Future Phase(s) and/or any future Customer Renewable Resources. While the changes in the Third RESC Amendment does not expand the amount of new load or resources that Stadion may bring to the Company’s system, these changes include modified Company charges to address changed circumstances since the parties executed the RESC in 2016. I will provide additional details on these changes later in my testimony.

Q. Is the Company requesting approval of the Third RESC Amendment?

A. Yes.

SUMMARY OF PROPOSED AMENDMENTS TO RESC FOR FACILITY PHASE 1 AND POTENTIAL FUTURE FACILITY PHASE(S)

Q. Please summarize the basic objectives of the proposed amendments applicable to all facility phases.

A. The Parties mutually agreed to make modifications to the RESC with the objective of clarifying several aspects of the RESC. Specifically, the Parties agreed to the following:

1) The effective date of the RESC is June 20, 2016;
2) [redacted]; and
3) The early termination payment will be calculated to ensure proper alignment with costs.

RESC Effective Date

Q. Why is the effective date being clarified?

A. During the execution of the existing RESC, the Parties inadvertently did not populate the blank spaces in the definition of Effective Date. The Third RESC Amendment clarifies the effective date as June 20, 2016.

Billing Process Clarifications

Q. How does the Third Amendment affect the billing process of the RESC?

A. Inherent to the service the Company provides under the RESC, the Company must account for the variability in Customer Renewable Resources' production, and the load it serves through the Customer Renewable Resources. To account for both variability issues in the monthly billings, the existing RESC requires the Company use estimates related to the expected amount of production from the Customer Renewable Resources and the expected Utah Facility load. Prior to the start of each Contract Year,[2] the renewable resource production and the Utah Facility load are estimated for billing purposes for the coming Contract Year. In addition, the existing RESC also requires the Company to perform a series of calculations that true-up the estimates to actual production and load results during the Contract Year. The Parties now agree that it will be more efficient to perform the prescribed calculations on a calendar year basis (January through December), rather than a truncated 12-month period. As such, the Third RESC Amendment proposes to replace all references to Contract Year with Calendar Year.[3]

RESC Early Termination Payment Calculation

Q. What are Stadion's termination rights under the RESC?

A. The RESC termination provision allows Stadion to terminate the RESC by providing [redacted] notice to the Company. In addition, and as required by Schedule 34, if the RESC is terminated early, Stadion is obligated to pay for all termination costs associated with each of the Customer Renewable Resources.

Q. What constitutes an early termination under the RESC?

A. Early termination will occur if Stadion elects to terminate the RESC before the end of the RESC term.

Q. What is the term of the RESC?

A. The initial term of the RESC is 10 years ("Initial Term"), however, the term of the RESC will continue for so long as Customer Renewable Resources' PPAs, entered into

[2] Defined in the existing RESC as a 12 consecutive month period commencing on the date Stadion's permanent meter is set and firm power and energy is first provided to the Utah Facility.
[3] Defined in the Third RESC Amendment as "…12-month period beginning January 1 and ending December 31…"

during the Initial Term, remain active and the Company has financial obligations under those PPAs. For example, if by Stadion's request the Company enters into a 20-year renewable supply PPA in year nine of the Initial Term, the term of the RESC will continue for 19 years beyond the Initial Term.

Q. What is the early termination payment calculation in the existing RESC?

A. The RESC provides a formulaic method of deriving the early termination payment. [redacted].

To further assist in the understanding of the Early Termination Payment Calculation, it is important to note that [redacted]

[redacted]

Q. How does the Third RESC Amendment change the Early Termination Payment Calculation?

A. The Third RESC Amendment does not fundamentally change the mechanics of calculating or identifying the early termination cost as prescribed for in the RESC, however, it does add a new variable to the equation, it clarifies the sequence of events stemming from Stadion's election to exercise its termination rights and [redacted]. Under the proposed provisions of the Third RESC Amendment (specifically Exhibit A), the Early Termination Payment Calculation now considers [redacted].

The proposed Third RESC Amendment also clarifies Company's actions following receipt of termination notice by explicitly identifying that, on a timely basis, Company must determine [redacted].

Lastly, the Parties agreed to [redacted].

SUMMARY OF PROPOSED AMENDMENTS TO RESC FOR POTENTIAL FUTURE FACILITY PHASE(S) ONLY

Q. Please summarize the basic objectives of the proposed amendments.

A. The Parties mutually agreed to make modifications to the RESC with the objective of addressing changed circumstances since the parties executed the RESC in 2016 for the procurement and supply of renewable resources to serve any potential expansion to the Utah Facilities. The Company's system now includes a much higher penetration of intermittent generation resources than it did in 2016 and the Company's integrated resource plan (IRP) action plans have consistently called for the addition of more intermittent resources. The regional capacity situation is also markedly different than it was in 2016, with regional changes to the generation mix that mirror those impacting the Company's system. To address these issues, Stadion and the Company have agreed to revise the agreement as it relates to any additional resources that will be brought on to serve Stadion's additional energy needs at its Utah facilities. Specifically, the Parties agreed to modify the following aspects of the RESC for future Customer Renewable Resources and Future Facility Phases:

1) Modifications to the Use of System Facilities Charges and Administrative Fees
2) Addition of a Capacity Contribution associated with future Customer Renewable Resources and Additional Capacity Charge; and
3) Adjustments for Transmission Line Losses.

Use of System Facilities Charge and Administrative Fees

Q. Please provide a summary of Use of System Facilities Charge

A. In advance of describing Use of System Facilities Charge, it is important to recognize that under the RESC, Stadion, through the Company, will procure Customer Renewable Resources to meet 100 percent of its load demand. However, while the Company fully expects these Customer Renewable Resources to match Stadion's usage on an annual basis, there will be periods during the year when Station's load and the output from these Customer Renewable Resources will not match due to variations between the generation output and Utah Facilities' load. Essentially, to effectuate the electric service required by Stadion, the Company will provide a mixture of system services, including transmission, firming and shaping, and balancing service[4] ("System Services").

The Use of System Facilities Charge and the Administrative Fees aim to recover costs incurred by the Company to render System Services to Stadion's Utah Facilities.

Q. What is the current Use of System Facilities Charge?

A. The negotiated Use of System Facilities Charge in the RESC was [redacted] per kilowatt (kW) month, however, the RESC allows escalation of the Use of System Facilities Charge commensurate to the average percentage change in rates for all Utah retail tariff customers, as a result, the current Use of System Facilities Charge is [redacted] per kW month ("Original USFC").

[4] Particularly important during the instances the Company utilizes its system resources to firm and shape the variability on renewable supply to smooth out the differences between the instantaneous Customer Renewable Resources' output and the instantaneous Utah Facilities load.

Q. How does the proposed Third RESC Amendment alter the Use of System Facilities Charge?

A. The new Use of System Facilities Charge provision contemplated in the Third RESC Amendment creates a tiered approached to the applicability of the Use of System Facilities Charge, specifies the applicability of the Original USFC, and establishes a new Use of System Facilities Charge ("Second Tier USFC"). The Third RESC Amendment delineates Stadion's on-peak demand by limiting the applicability of the Original USFC to the first [redacted] kW and establishes that for any on-peak demand in excess of the [redacted] kW of for all load at any new facilities, the Second Tier USFC would be applicable.

Q. What is the Second Tier USFC rate?

A. The negotiated Second Tier USFC rate is [redacted] per kW month, [redacted].

Q. Does the Use of Facilities Charge change over the term of the RESC?

A. Yes, both the Original and Second Tier USFC will be adjusted over time. Specifically, the Original USFC adjusts by the average percent change in rates for all Utah retail tariff customers concurrently with general rate case and major plant addition cases. The Second Tier USFC rate will be adjusted by the average percent change in Utah Schedule 9 retail tariff rates (excluding energy charges), concurrently with general rate case and major plant addition cases.

Q. Will there be other adjustments to the Use of System Facilities Charge?

A. Yes, The Third RESC Amendment stipulates that the Company will re-evaluate the

Use of System Facilities Charge if a Future Resource deviates from single-axis tracking solar or wind turbines (with or without storage), or if the Company anticipates a Future Resource will have a material impact on its system. In the event Company requires adjustments to the Use of System Facilities Charge, the adjustment has to be agreed upon by both Parties or approved by the Commission.

Q. How will the Original USFC and Second Tier USFC rates be billed?

A. The Use of System Facilities Charges will be billed as separate line items, that is, for each billing period, the Company will utilize the billing period's on-demand peaks, as delineated by the on-demand peak tier described above and multiply it by the corresponding dollar-per-kW Use of System Facilities Charge.

Q. What is the objective of the additional Administrative Fee associated with all Future Resources and how much is it?

A. To ensure that all the Company's costs associated with the service provided under the RESC, and all other additional administrative costs, are fully reimbursed by Stadion, the Parties agreed to include an additional negotiated administrative fee of [redacted] per megawatt-hour (MWh) for all actual renewable supply delivered to the Utah Facilities from the Future Resources.

Capacity Contribution and the Additional Capacity Charge

Q. Can you please describe in general terms what is capacity contribution?

A. Capacity contribution is a measure of a resource's ability to reliably meet demand ("Capacity Contribution"). This is relevant to the Company's resource planning activities, which are intended to ensure sufficient resources are available to meet load obligations during in each hour of the year under a range of conditions, accounting for a range of potential load, unplanned generator outages, hydro conditions, and variable energy resource output.

Q. Please comment why Capacity Contribution is relevant to the RESC.

A. Stadion's electric service agreement for its Utah Facilities allows Stadion to add incremental load and the RESC allows Stadion to bring new renewable resources to help serve that load. Through the Third RESC Amendment, specifically inclusion of Capacity Contribution, the Company seeks better alignment between the Capacity Contribution of future Customer Renewable Resources and Stadion's load to ensure that the electric service provided to the Utah Facilities does not increase or decrease system reliability.

Q. Will Capacity Contribution be applicable to all Customer Renewable Resources?

A. No, as part of the negotiated provisions of the Third RESC Amendment, [redacted], which is attached as Confidential Exhibit RMP__(CME-2) and which has been revised for consistency with the Third RESC Amendment, and to all other Customer Renewable Resources procured by the Company, on behalf of Stadion, [redacted].

Q. Did the Parties negotiate any other Future Resources Capacity Contribution limitations?

A. Yes, unless Parties mutually agree to the contrary, the Third RESC Amendment limits the total Capacity Contribution that can be allocated to all Future Resources, including Appaloosa I-B, to not exceed [redacted] kW.

Q. What happens after the Capacity Contribution limitation is met?

A. The parties will need to negotiate terms for any additional capacity needs beyond this limit.

Q. How will the Capacity Contribution be determined for each Future Resource?

A. Capacity Contribution for each Future Resource will be based upon a reasonably estimated capacity contribution value for a comparable resource as utilized in the Company's most recently Commission-approved applicable Utah resource planning or tariff filing, adjusted as appropriate for Transmission Line Losses and reserve requirements of three percent (3%). The assessment compares a resource's hourly generation profile to the risk of loss of load events in each hour. The loss of load risk is calculated from a large number of stochastic studies where a resource portfolio is stressed with varying inputs, including load, hydro conditions, and thermal forced outages. A resource that was 100 percent available in all hours where the loss of load risk was greater than zero would receive a 100 percent capacity contribution. Resources that are only available during some hours or only partially available receive partial credit, as the method provides credit for the proportion of the loss of load risk that can be covered by a resource's expected output.

Q. What is the Capacity Contribution of Appaloosa I-B?

A. The expected Capacity Contribution for Appaloosa I-B was calculated to be [redacted] The Company estimated the Capacity Contribution for Appaloosa I-B using the Capacity Factor Approximation Methodology ("CF Method") and the inputs produced as part of its 2019 IRP,[5] which was the most current information available at the time the Appaloosa I-B PPA was executed.

Q. Please summarize the reason why Additional Capacity Charge was added to the Third RESC Amendment.

A. As discussed above, Capacity Contribution as it relates to the RESC, is an important aspect of the Company's power system planning as it ensures that adequate renewable generation capacity exists to meet Stadion's Utah Facilities electricity demand. [redacted]. This element is important to addressing the shifts in resource types that the region and the Company are experiencing, and which put more pressure on capacity needs going forward.

Q. How much is the Additional Capacity Charge?

A. The negotiated Additional Capacity Charge is [redacted]

Q. Please summarize how the Additional Capacity Charge was developed.

A. The Additional Capacity Charge was developed as a proxy for the theoretical costs associated with generation from a natural gas peaking facility, the Company utilized the following costs:

- [redacted]
- [redacted]

[5] PacifiCorp's 2019 IRP. Volume II. Appendix N: Capacity Contribution Study. Available online at: https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2019_IRP_Volume_II_Appendices_M-R.pdf

[redacted]

- [redacted]

Q. How will the Additional Capacity Charge be calculated and billed?

A. To identify any Capacity Contribution deficiencies, the Company will assess, on a monthly basis, the positive variance ("Additional Demand") between the Capacity Contribution associated with the applicable Customer Renewable Resources and future Utah Facilities' on-peak demand; the positive difference indicates that for that billing period, the allocated Capacity Contribution were insufficient to meet the Utah Facilities' on-peak demand, and thus the Additional Capacity Charge will apply. To perform this assessment, the Company will deduct (a) the sum in kW of (i) the cumulative Capacity Contribution associated with the applicable Customer Renewable Resources, plus (ii) any prior billings period Additional Demand, from (b) the Utah Facilities' on-peak demand ("On-Peak Demand"). Provided however, similarly to the tiered approached described in the Use of System Facilities Charge section of the testimony, the Company will calculate On-Peak Demand by summing (x) all on-peak demand in excess of [redacted] kW measured at the Phase 1 Facilities' meter, and (y) all on-peak demand measured any other meters at the Utah Facilities.

After completing the analysis and determining any Capacity Contribution deficiencies, the Company would include Additional Demand Charges to Stadion's invoice for an amount equal to the product of Additional Demand Charge and Additional Demand.

Q. Will the Additional Demand Charge change throughout the term of the RESC?

A. Yes, the Additional Demand Charge will be adjusted from time to time by the average

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[redacted].

percentage change in rates for all Utah retail tariff customers concurrently with general rate case changes and major plant addition cases that are filed and approved after the effective date of the Third RESC Amendment.

Transmission Line Loss

Q. Please define Transmission Line Loss.

A. Transmission of electricity, from generating facilities to end-user's delivery meters, is an inefficient process; for example, delivering 100 MWh of electricity to a customer's delivery point will require more than 100 MWh be put into the transmission system. These losses are inevitable and depend on a variety of factors, including the physical properties of transmission facilities and the distance the electricity must travel. The electricity quantity that is lost during the transmission and distribution of electricity across the Company's system is referred to as transmission line loss.

Q. How does the Company estimate Transmission Line Loss factor?

A. In general, the Company calculated the current transmission loss factor by utilizing information from its 2021 Federal Energy Regulatory Commission Form 1 – Electric Utility Annual Report. Simplistically, the mechanics of the calculations evaluates the variance between the total system-connected energy sources, including energy imports, and the disposition of that energy to the Company's transmission and retail customers, including energy exports. The result of this analysis, among other assumptions and variables, represents the unaccounted-for energy, which in turn becomes the Transmission Line Loss factor.

Q. How often does the Company reevaluates the Transmission Line Loss factor and where does the Company report its Transmission Line Loss factor and calculations?

A. The Company reassesses its Transmission Line Loss factor upon major transmission upgrades or investments, and/or in the event of a major rate case. The results and calculations are then posted on PacifiCorp's Transmission's Open Access Transmission Tariff.

Q. How will Transmission Line Loss affect provisions in the RESC.

A. Prior to each calendar year, the RESC requires the Company to estimate the expected monthly net output to be received by Company from each of the Customer Renewable Resources. Because there are multiple Customer Renewable Resources, the Company calculates the monthly-average renewable supply, annually, by aggregating the corresponding contracted annual expected energy associated with each of the Customer Renewable Resources' PPAs, then divides this summation by twelve ("Estimated Renewable Supply"). However, due to Transmission Line Losses as described above, the amount of renewable supply that its ultimately delivered to the Utah Facilities will be lower than what the Company receives from the Customer Renewable Resources. While this occurrence does not impact Stadion from an electric service perspective, it does create a situation where the Company is actually making up for the Transmission Line Losses associated with the electric service it provides to the Utah Facilities from the Customer Renewable Resources. The Third RESC Amendment attempts to diminish this problem by incorporating Transmission Line Losses to the calculation of Estimated Renewable Supply, thus reducing the expected energy from Future

Resources' annual expected energy, and ensuring Stadion procures sufficient energy from Future Resources.

As mentioned earlier, the contract price associated with each of the Customer Renewable Resources are restated in each corresponding Resource Appendix, thus, Stadion is fully aware of its renewable supply costs, however, for billing purposes, the RESC requires the Company to calculate a weighted-average supply cost ("Renewable Supply Charge"). Estimated Renewable Supply is an integral part of calculating the Renewable Supply Charge, as such, the application of Transmission Line Loss (which reduces annual expected energy) will cause an overall increase to the Renewable Supply Charge.

Lastly, the Company bills Stadion utilizing estimated figures (i.e., Estimated Renewal Supply, Renewable Supply Charge) as a result, the Company performs several true-up adjustments at the end of each calendar year, one of which is affected by the introduction of Transmission Line Loss. At the end of each calendar year, the Company calculates the actual dollar-per-MWh cost of supply ("Actual Supply Cost") by evaluating the actual renewable supply received from each Customer Renewable Resources and the corresponding actual cost of renewable supply. As such, during its evaluation, the Company will now reduce the amount of supply from all Future Resources (including Appaloosa I-B) by the Transmission Line Losses.

CONCLUSION AND RECOMMENDATION

Q. What is your recommendation for the Commission?

A. I recommend the Commission approve the Third RESC Amendment as discussed in my testimony and presented in Confidential Exhibit RMP__(CME-1).

Q. Does this conclude your direct testimony?

A. Yes.