

BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING

IN THE MATTER OF THE APPLICATION OF)	
ROCKY MOUNTAIN POWER FOR)	Docket No. 20000-675-EA-24
AUTHORITY TO JOIN THE EXTENDED DAY-)	(Record No. 17731)
AHEAD MARKET)	

OCA RESPONSE TO WIEC MOTION TO STAY

(Filed: May 28, 2025)

COMES NOW, the Wyoming Office of Consumer Advocate (“OCA”), by and through its undersigned counsel, and hereby respectfully submits its Response to the Wyoming Industrial Energy Consumers’ (“WIEC”) Motion to Stay Proceeding and Require Supplemental Information and Motion for Shortened Response Time (the “Motion”) of PacifiCorp’s d/b/a Rocky Mountain Power (“RMP” or the “Company”) application for authority to join the California Independent System Operator’s (“CAISO”) Extended Day-Ahead Market (“EDAM”). For the reasons described below, the Wyoming Public Service Commission (“Commission”) should grant WIEC’s Motion.

INTRODUCTION AND BACKGROUND

1. On October 10, 2024, RMP presented to the Commission at an open meeting regarding the Company's intention to join the EDAM.
2. On October 17, 2024, the Commission directed the Company at an open meeting to file an application seeking authority to join the EDAM.
3. On December 30, 2024, the Company filed its initial application with the Commission in this docket, providing notice of its intent to enter into and participate in the EDAM.
4. On February 7, 2025, the Commission issued an Order in Docket No. 90000-184-XO-24 (Record No. 17742) (“Order”) asserting jurisdiction over RMP’s decision to join the EDAM. The Order directed the Company to “file an application for authority to join the EDAM ... [that] shall

address the anticipated benefits and risks of participation in the EDAM and shall include all pertinent information that would be required by Commission Rule, Chapter 3, Section 21(f)(i).”

5. The Company did not appeal the Order.

6. On February 18, 2025, the Company filed its Amended Application in this docket, requesting the Commission “make a determination that PacifiCorp’s EDAM participation will benefit customers and is in the public interest.”¹

7. On March 27, 2025, the OCA filed a Notice of Intervention in this docket.

8. On April 11, 2025, WIEC filed a petition to Intervene and Request for Hearing, which the Commission granted at its April 29, 2025, open meeting.

9. On April 28, 2025, the Commission adopted the Scheduling Order establishing an expedited procedural schedule and setting this matter for public hearing on July 9, 2025.

10. On May 21, 2025, WIEC filed its Motion, seeking an order staying this proceeding and requiring the Company to file supplemental information in support of the Application.

ARGUMENT

WIEC's Motion advances three principal arguments demonstrating that the Company has failed to comply with the Commission's Order and that this proceeding should be stayed:

- 1) The Company failed to comply with the Order by not requesting authorization from the Commission to participate in the EDAM, instead seeking a determination that such participation would be in the public interest.
- 2) The Company failed to comply with the Order by not adequately addressing the anticipated benefits and risks of EDAM participation or providing all pertinent information required by Commission Rule, Chapter 3, Section 21(f)(i).

¹ Amended RMP Exhibit 1.0 – Amended Application, page 9.

- 3) The Application is not ripe for decision because material aspects of the EDAM structure remain uncertain and are subject to ongoing proceedings before the Federal Energy Regulatory Commission (“FERC”) and other regulatory bodies.

The OCA concurs with and hereby incorporates by reference the arguments set forth in WIEC's Motion. The OCA respectfully submits this Response to emphasize additional considerations supporting the requested relief, with particular focus on the impacts to Wyoming ratepayers.

I. The Amended Application Fails to Request the Commission's Authorization to Join the EDAM as Required by the Order.

As WIEC correctly notes, the Company's Amended Application and response to WIEC Data Request 1.4² clearly indicates the Company failed to comply with the Commission's express directive to “file an application for authority to join the EDAM”³ and instead seeks a “determination that [the Company's] EDAM participation will benefit customers and is in the public interest.”⁴ This deliberate decision to request something other than what the Commission ordered warrants immediate correction.

The Company's failure to comply cannot be excused by any claim that the Commission lacks jurisdiction over its decision to join the EDAM. Pursuant to Wyoming Rules of Appellate Procedure 12.04, the Company had thirty (30) days from the date of the Order to file an appeal. The Company chose not to appeal. Having failed to timely challenge the Commission's jurisdictional determination, the Company must now comply with the Order as issued.

² OCA Attachment B, Page 4.

³ *Order*, Docket No. 90000-184-XO-24 (Record No. 17742). Page 3, Paragraph 1.

⁴ Amended RMP Exhibit 1.0 – Amended Application, Page 9.

The Commission should grant WIEC's Motion and require the Company to file an amended application that properly requests authorization to join the EDAM—if that is indeed what the Commission intended in its Order. However, if the Commission is satisfied with the Company's request for a determination of public interest rather than authorization, then, respectfully, the Commission should clarify its intent and amend its Order accordingly.

II. The Amended Application Lacks Sufficient Analysis of Benefits, Risks, and Customer Impacts, Particularly as to Wyoming Ratepayers.

The OCA agrees that the Company's Amended Application fails to provide the comprehensive analysis necessary for the Commission to determine whether EDAM participation serves the public interest. While WIEC's Motion thoroughly addresses the Amended Application's failure to analyze risks and compare alternative market options, the OCA emphasizes in this Response additional deficiencies that further warrant staying this proceeding and requiring the Company to file supplemental information.

A. The Amended Application fails to address material risks to Wyoming ratepayers.

The Amended Application omits analysis of a significant material risk: charges arising from parallel flow congestion. This is not just a concern of the OCA, but rather one of the main concerns raised by several stakeholders in the Company's pending FERC proceeding⁵ (discussed in greater detail in Section III of this Response). Parallel flow congestion charges occur when transmission constraints in one balancing authority area ("BAA") cause congestion in another BAA. The current FERC approved CAISO EDAM tariff requires the affected BAA to pay these congestion charges that are then distributed to the BAA where the constraint originated. This

⁵ FERC Docket No. ER25-951-000.

creates a scenario where constraints outside PacifiCorp's control could directly increase the cost of serving Wyoming retail load with the Company's own generation resources.

This risk is particularly acute because, as confirmed in the Company's response to OCA Data Requests 5.10,⁶ even self-scheduled resources remain subject to locational marginal pricing ("LMP") and the associated congestion charges. While this problem might be mitigated by the currently proposed changes to the CAISO EDAM tariff⁷ (discussed in greater detail in Section III of this Response), the Company states in its response to OCA Data Request 5.11⁸ that it does not intend to frequently self-schedule resources, as doing so would create system-wide inefficiencies. This will potentially leave Wyoming ratepayers exposed to congestion charges from parallel flows without adequate mitigation strategies.

B. The Amended Application fails to analyze state-specific impacts as directed in the Commission's Order.

The Commission's Order directs RMP to set forth "the costs and benefits for Wyoming ratepayers."⁹ While the OCA does not necessarily disagree with the Company's assertion that the EDAM is likely to provide overall system-wide benefits, the Amedend Application's high-level projections of system-wide benefits and costs fails to adequately meet this direction and obscures the specific impacts on Wyoming ratepayers. This is particularly relevant given the impending expiration of the current cost allocation methodology at the end of 2025, which is discussed in greater detail in Section III of this response.

As the Company transitions away from the current dynamic allocation factors toward potential situs assignment of costs and resources, the allocation of EDAM benefits and risks among

⁶ OCA Attachment A, Page 44.

⁷ <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-day-ahead-market>

⁸ OCA Attachment A, Page 45.

⁹ Order, Docket No. 90000-184-XO-24 (Record No. 17742). Pages 2-3, Paragraph 7 (*emphasis added*).

the PacifiCorp states could fundamentally change. States with renewable portfolio standards and carbon pricing mechanisms face higher energy procurement costs and may rely more heavily on EDAM transactions, thereby incurring greater exposure to congestion charges. Without state-specific tracking capabilities, Wyoming ratepayers risk subsidizing these costs through system-wide allocation.

The Company's response to OCA Data Request 5.4¹⁰ confirms this critical deficiency: PacifiCorp cannot track congestion charges on a state-specific basis, instead relying on CAISO's BAA-level tracking system. This limitation will prevent the Commission and other interested parties from assessing the extent to which Wyoming ratepayers benefit or are or harmed by EDAM participation under future allocation methodologies.

C. The Application fails to address inter-jurisdiction resource sharing and compensation.

The Company's responses to OCA Data Requests 3.3,¹¹ 3.4,¹² and 5.13¹³ reveal that PacifiCorp's BAAs currently "lean on each other" to meet EDAM resource sufficiency requirements, with no compensation mechanism between BAAs and no analysis of the extent of such reliance. As states increasingly pursue situs assignment of generation resources, this uncompensated resource sharing becomes problematic.

Without systems to track and compensate for inter-state resource usage, Wyoming could find itself supporting other states' EDAM participation requirements while bearing a disproportionate share of costs. This risk is compounded by the possibility that the Company's relatively lower-cost thermal generation could be used to meet resource sufficiency requirements

¹⁰ OCA Attachment A, Page 38.

¹¹ *Id.* Pages 28-29.

¹² *Id.* Page 30.

¹³ *Id.* Page 47.

for states with higher-cost renewable standards and carbon pricing mandates, effectively forcing Wyoming ratepayers to subsidize other states' policy choices by not allowing dispatch of relatively cheap resources to serve Wyoming load and instead procuring energy through the market.

D. Conclusion

The Amended Application's failure to analyze state-specific impacts, address parallel flow congestion risks, or provide mechanisms for inter-jurisdictional compensation renders it insufficient for determining whether EDAM participation serves Wyoming's public interest. While the OCA acknowledges that EDAM participation could potentially decrease system-wide costs, this creates a critical analytical gap: the costs of EDAM participation while maintaining the current system-wide sharing of net power costs may exceed those under an alternative scenario where Wyoming forgoes EDAM participation but instead has the ability to directly situs-assign the costs associated with serving Wyoming load. Without this comparative analysis, the Commission cannot make a determination as to whether EDAM participation truly benefits Wyoming ratepayers or merely reduces costs in a manner that appears advantageous while foreclosing Wyoming's opportunity to achieve greater benefits through state-specific cost allocation.

The Commission cannot make an informed determination without understanding how EDAM benefits and risks will be distributed among states under evolving allocation methodologies. It is for these reasons, raised by both WIEC and the OCA, that the Commission should grant WIEC's Motion and require supplemental analysis addressing these critical deficiencies, including a comparison of EDAM participation versus non-participation under situs-assigned cost allocation.

III. The Application Is Not Ripe for Decision Due to Material Uncertainties in the EDAM Structure and the Absence of Hardship to the Company from Staying These Proceedings.

A. Determination requires consideration of facts that are not yet developed.

WIEC is correct that the question of whether joining the EDAM serves the public interest is not fit for decision at this time. Material uncertainties persist regarding FERC's evaluation of the Company's revised Open Access Transmission Tariff ("OATT"), the CAISO's potential EDAM tariff revisions, and California Senate Bill 540's proposed governance restructuring. The OCA expands on these issues raised by WIEC and submits additional considerations demonstrating the Amended Application's lack of ripeness.

i. PacifiCorp's proposed OATT revisions.

As WIEC correctly notes, FERC is actively reviewing the Company's proposed OATT revisions in Docket No. ER25-951-000. Following the Company's January 16, 2025, filing, numerous parties submitted comments and protests raising substantial concerns about both the proposed revisions and underlying CAISO EDAM mechanisms. On March 27, 2025, FERC issued a deficiency letter ordering the Company to file an amendment addressing several issues. The Company filed its response on April 28, 2025, with comments and responses by intervenors due on May 19, 2025. As of now, it is uncertain when FERC will file its decision.

The Company's response to OCA Data Request 3.5¹⁴ acknowledges that FERC may not issue an order until July 5, 2025—merely four days before the scheduled hearing and well past the intervenor testimony deadline. Furthermore, until FERC files its decision, it is unknown if PacifiCorp will be able to participate in the EDAM or if it will be required to make additional

¹⁴ OCA Attachment A, Page 31.

revisions to its OATT. It is inappropriate for the Commission to make a determination that EDAM participation is in the public interest before FERC makes its own determination on the Company's proposed OATT revisions.

ii. Potential revisions to the CAISO tariff regarding the EDAM congestion revenue allocation.

The Company's response to WIEC Data Request 1.6¹⁵ confirms that CAISO is conducting an ongoing stakeholder process to modify the EDAM's congestion revenue allocation design. This initiative is a direct response to the concerns that were raised in the Company's aforementioned FERC docket that EDAM entities would receive insufficient congestion revenues to provide long-term firm transmission rights holders adequate financial hedges against parallel flow congestion charges. With a final proposal scheduled for June 6, 2025,¹⁶ and a subsequent FERC filing required, any resulting changes to congestion revenue allocation will alter the cost-benefit analysis for EDAM participation and will not be able to be evaluated before this proceeding's scheduled conclusion.

iii. California Senate Bill 540 and the "Pathways Initiative".¹⁷

SB 540 proposes fundamental restructuring of EDAM and WEIM governance by transferring market oversight from CAISO to an independent regional organization. This legislative response to longstanding governance concerns—which have influenced multiple entities' decisions between EDAM and SPP's Markets+—remains in flux. In addition, recent amendments proposed by The Utility Reform Network, a California consumer advocacy organization, potentially undermine the bill's original objective by granting California unilateral

¹⁵ OCA Attachment B, Page 6.

¹⁶ See <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-day-ahead-market>

¹⁷ https://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill_id=202520260SB540

withdrawal rights if market participation could "harm" California interests. The bill's committee hearing, rescheduled from May 19 to May 23, 2025, leaves the proposed amendments ultimate effects uncertain.

iv. Ongoing development of PacifiCorp's EDAM protocols and bid calculations.

The Company's discovery responses reveal that critical EDAM implementation details remain undeveloped. Specifically, the Company has not finalized:

- Parameters for utilizing the Net Export Transfer Constraint (OCA Data Request 5.8);¹⁸
- Methodologies for calculating Energy Bids, Imbalance Reserve Bids, and Reliability Unit Commitment Availability Bids (OCA Data Request 5.9);¹⁹ and
- Load bidding strategies (WIEC Data Request 2.3(a)).²⁰

The Company indicates these calculations will be "develop[ed] and refine[d]...through the EDAM parallel operations prior to market go-live."²¹ This creates an analytical paradox: the Commission cannot assess EDAM's public interest implications without understanding these operational parameters, yet the parameters cannot be determined without operational experience.

v. Allocation of costs and benefits among PacifiCorp states.

Perhaps most critically, the current cost-allocation methodology utilized by the Company, the 2020 PacifiCorp Inter-Jurisdictional Allocation Protocol, otherwise known as the Multi-State Protocol ("MSP"), expires December 31, 2025²²—before EDAM participation would commence. In addition, by the Company's own decision, there are no longer any ongoing MSP workshops to

¹⁸ OCA Attachment A, Page 42.

¹⁹ *Id.* Page 43.

²⁰ OCA Attachment B, Pages 16-18.

²¹ See Footnote 19.

²² *Notice on Post-Interim Period*, Docket No. 20000-641-EA-23 (Record No. 17280).

determine a post-2025 cost-allocation methodology and the Company has neither proposed a replacement allocation methodology for Wyoming nor demonstrated how EDAM costs and benefits would be equitably distributed among states under any future framework.

The Company's Washington 2026 Protocol filing suggests movement toward state-specific situs assignment of resources and costs. However, discovery responses reveal fundamental incompatibilities between this approach and EDAM participation:

- The Company cannot track which BAA resources meet resource sufficiency requirements for the other BAA (OCA Data Request 3.4);²³
- No compensation mechanisms exist for inter-BAA resource sharing (OCA Data Request 3.4);²⁴ and
- The Company lacks the capability to track congestion charges by state, only by BAA (OCA Data Request 5.4).²⁵

These limitations will potentially violate cost-causation principles and risk forcing Wyoming ratepayers to subsidize other states' policy choices through uncompensated resource sharing and misallocated congestion charges. Furthermore, while the Company has filed an alternative cost-allocation methodology with the Washington Commission, the Company has yet to file an alternative methodology with the remaining five states in which it operates. Given the outstanding uncertainty of these allocation issues, the Commission cannot make a determination as to whether EDAM participation serves Wyoming's public interest or if it merely reduces costs in a manner superficially favorable to Wyoming under outdated allocation assumptions while precluding a more granular separation of net power costs than under the current methodology.

²³ OCA Attachment A, Page 30.

²⁴ *Id.*

²⁵ *Id.* Page 38.

vi. *Conclusion*

The aforementioned uncertainties render the Amended Application unfit for decision. Material aspects of EDAM design, implementation, and cost allocation remain unresolved, with many extending beyond the current procedural schedule. This makes it impossible for the Commission to have sufficient evidence by the July 9, 2025, hearing date to make a prudency determination.

B. There is no direct or immediate dilemma from a stay.

The OCA submits no additional arguments. The OCA agrees staying the proceeding to await resolution of the identified uncertainties serves the public interest by ensuring any Commission determination rests on complete information rather than speculation and the Company will suffer no direct or immediate dilemma from this decision.

CONCLUSION

For the reasons stated above, the OCA respectfully requests the Commission grant WIEC's Motion in its entirety.

Respectfully submitted this 28th day of May 2025.

OFFICE OF CONSUMER ADVOCATE



Shelby M. Hayes Hamilton, Legal Counsel
Wyoming Office of Consumer Advocate
2515 Warren Avenue, Suite 304
Cheyenne, WY 82002
(307) 777-5709
Shelby.Hamilton1@wyo.gov

OCA Attachment A

RMP's Responses to OCA Data Requests

OCA Data Request 1.1

Please confirm that a full and complete copy of the application and related work papers and exhibits, in their native electronic format with all formula intact, in the above referenced docket has been provided. This includes Confidential and Highly Confidential work papers and exhibits.

Response to OCA Data Request 1.1

Confirmed. Note: there were no work papers (public, confidential nor highly confidential) filed with PacifiCorp's Application in this proceeding.

Respondent: Not Applicable

Witness: Not Applicable

OCA Data Request 1.2

Please provide copies of all questions and responses to past, present, and future data requests submitted to Rocky Mountain Power or any related entities by any other parties to this proceeding including the staff of the Wyoming Public Service Commission in the above referenced docket. This is an ongoing request.

Response to OCA Data Request 1.2

The Office of Consumer Advocate (OCA) will be provided with copies of the Company's responses to data requests submitted to the Company in this proceeding.

Respondent: Not Applicable

Witness: Not Applicable

OCA Data Request 1.3

Referring to the Company's Amended Application, page 5, paragraph b, the Company states "the larger EDAM footprint will lead to a maximization in the value of existing generation, transmission, and future planned capital investments". Please explain if the Company has or will incorporate EDAM considerations into its decision-making processes for past, present, or future planned capital investments.

Response to OCA Data Request 1.3

Outside of investments in controls, systems, and metering directly related to extended day-ahead market (EDAM) participation, PacifiCorp has not yet integrated specific EDAM considerations into its past, present or planned capital investments. Currently, there are uncertainties regarding market behavior, and PacifiCorp is not yet relying upon the potential incremental benefits associated with EDAM participation when considering future investments in generation and transmission. As the impacts of EDAM participation become more certain, PacifiCorp expects to include them in its decision-making processes.

Respondent: Dan MacNeil

Witness: Michael G. Wilding

OCA Data Request 1.4

Referring to the Company's Amended Application, page 5, paragraph d:

- (a) Please explain the exact timeline and procedural steps required for the Company to remove a generating unit's bid from the EDAM dispatch once the decision to remove has been made.
- (b) Please specify the minimum timeframe required between removal of a generating resource from the EDAM and when the Company can then rebid that same resource.
- (c) Please identify whether there is a minimum quantity or percentage of generating resources a BAA must bid into the EDAM, and if so, what those requirements are.
- (d) Please provide a comprehensive list of all penalties, costs, fees, or other financial implications associated with managing the Company's generating resources for reliability purposes when such management conflicts with EDAM dispatch instructions.
- (e) Please describe any notification requirements or approval processes that must be followed when overriding EDAM dispatch instructions for reliability purposes.

Response to OCA Data Request 1.4

- (a) The bidding deadline for the extended day-ahead market (EDAM) is 10:00am (Pacific Time) on the day before the operating day.
- (b) The bidding deadline for the EDAM is 10:00am (Pacific Time) on the day before the operating day. The next opportunity, if the Company decides not to bid a resource into the EDAM, is to submit bids in the Western energy imbalance market (WEIM) similar to how the Company does today, where the bidding deadline is 75 minutes prior to the operating hour.
- (c) No. There is no minimum quantity or percentage of generating resources that a balancing authority area (BAA) must bid into the EDAM, other than the quantity necessary to meet the BAAs EDAM Resource Sufficiency Evaluation (RSE) requirements. One of the components of the RSE is the Imbalance Reserve Product, which requires an EDAM Entity to submit a certain quantity of Imbalance Reserve Up and Imbalance Reserve Down bids, which must be accompanied by corresponding economic energy bids. The imbalance reserve requirement exists to ensure that the market footprint has sufficient capacity to respond to changes in load, wind, and solar forecasts between the day-ahead and real-time. The other components of the EDAM RSE include demand and generation balance, and ancillary services, which can be met through a combination of economic or self-scheduled generation and interchange bids.
- (d) The difference between the California Independent System Operator (CAISO) instructed award and the metered generation will be settled as uninstructed

imbalance at the real-time nodal price.

If a generator produces more energy than instructed by CAISO for reliability purposes (determined outside the CAISO market), CAISO will compensate PacifiCorp for the incremental energy at the real-time nodal price. The portion generated per instructions will be compensated based on the nodal prices applicable to the market in which the instruction was issued.

If a generator produces less energy than instructed for reliability purposes, CAISO will pay the generator the nodal price for the full instructed volume at the market's nodal price for the market the instruction occurred in. However, the quantity not delivered—per the metered data—will be subtracted at the real-time nodal price in the uninstructed imbalance charge code.

If an instruction occurred in the real-time market but the metered value returned zero for reliability purposes, there would be no settlement impact, as the instructed quantity and the uninstructed imbalance offset each other, including price, resulting in a net-zero settlement.

- (e) If an operator is overriding the market instruction for reliability reasons, it means there is a real-time reliability concerns that must be addressed. Because operators must make decisions quickly and confidently in real-time to maintain grid reliability there are no notification requirements or approval processes. However, all operators are North American Electric Reliability Corporation (NERC) certified System Operators and participate in required continuing education to maintain their certification.

Respondent: Daniel Politoski / Doug Young

Witness: Michael G. Wilding

OCA Data Request 1.5

Referring to the Company's Amended Application, page 7, paragraph c:

- (a) Please quantify the expected reduction in the Company's planning reserve requirements due to EDAM participation, including the methodology used to calculate this reduction.
- (b) Please explain in detail the mechanisms by which the EDAM enables sharing of planning reserve requirements among participants.
- (c) Please define "shared planning reserve requirements" and provide specific examples of how this sharing would function in practice, including any contractual arrangements required.
- (d) Please define "harmonization in resource procurement programs" and explain how this would be implemented across the EDAM footprint, including any changes to the Company's current procurement practices that would be required.

Response to OCA Data Request 1.5

Shared planning reserve requirements are not incorporated under the current extended day-ahead market (EDAM) design, and the capacity savings referenced in the Company's Amended Application, page 7, paragraph c represent future potential capacity savings that may accrue due to future EDAM design scenarios. These potential capacity benefits were estimated in the State-Led Market Study¹ produced by Energy Strategies and represent resource adequacy related investment benefits which do not apply to EDAM under current design but would apply to a future market design that includes a shared planning reserve requirement. These potential benefits were not a factor in the Company's decision to join the EDAM as that decision was made based on the EDAM final proposal design. Capacity benefits were excluded from the PacifiCorp-commissioned Brattle Group (Brattle) studies which assessed benefits based on the current EDAM design.

The methodology that describes the additional potential capacity savings is explained in detail by Energy Strategies' State-Led Market Study². In addition to operational benefits realized in an organized market, the study estimated capacity savings that may accrue due to future market design changes. Savings estimated in this study are conservatively estimated based on load diversity benefits alone. In the absence of any coordination of balancing authority area (BAA) peak demand, resource adequacy obligations in place today generally require each BAA (or utility) to build or contract for resources to meet individual system loads plus a planning reserve margin (PRM). With a coordinated (or consolidated) system, the BAAs or utilities can forward plan capacity to meet the combined peak load, adjusting for local capacity needs that may exist because of transmission constraints. By planning for a system-wide peak instead of individual BAA peaks, individual BAAs and the greater system may be able to avoid additional

¹ [THE STATE-LED MARKET STUDY](#)

² [THE STATE-LED MARKET STUDY](#)

procurement or build out of new resources to meet capacity needs. This avoided cost is what this study considers to be load diversity benefits and represent the benefits classified as capacity savings in this study.

It is important to note that these capacity savings are dependent on future market configurations and design choices and may be able to be realized in a resource adequacy program that is independent of EDAM.

Respondent: Daniel Politoski

Witness: Michael G. Wilding

OCA Data Request 1.6

Referring to the Company's Amended Application, page 7-8, paragraph a:

- (a) Please provide specific examples and scenarios demonstrating how the EDAM will be “effectively reducing” the frequency and magnitude of emergency conditions.
- (b) Please quantify the expected reduction in emergency conditions (both in frequency and magnitude) that the Company anticipates from EDAM participation.

Response to OCA Data Request 1.6

- (a) The extended day-ahead market (EDAM) is designed to reduce the frequency and magnitude of emergency grid conditions by expanding regional coordination and optimizing resource use across a larger footprint. The EDAM is expected to accomplish this through the following:
 1. **Greater Resource Sharing Across Geographic Regions** – Under the current state, balancing authority areas (BAA) plan and procure resources for the next day independently. By linking the California Independent System Operator (CAISO) with neighboring BAAs, EDAM enables more efficient sharing of generation and flexible resources across a larger geographic region characterized by differing load and generation profiles at a given point in time. This is similar to how the Western energy imbalance market (WEIM) currently leverages these benefits in the real-time market to generate customer benefits. EDAM will enable BAAs to benefit from the geographic diversity of load and supply in the day ahead timeframe. During tight supply conditions, such as extreme heat events, areas with excess capacity can supply those in deficit, reducing the need for emergency alerts.
 2. **Coordinated Day-Ahead Market Optimization** – Currently, day-ahead market decisions are made by the BAA based on information about resources and load within its BAA but limited information about resource and load patterns in other BAAs leading to suboptimal dispatch of resources when compared to market footprint-wide optimization approach. EDAM optimizes resource commitment across multiple BAAs in the day-ahead timeframe, which helps ensure that all necessary resources are identified well in advance of the operating hour. Extending the planning horizon to the day-ahead, as opposed to hour ahead in the WEIM, allows sufficient time for long-start resources to be committed. This extended optimization horizon reduces the chances that an EDAM BAA will be in emergency conditions while resources in a neighboring BAA remain available but offline.
 3. **Enhanced Use of Transmission Capacity** – EDAM's optimization of transmission maximizes the use of available transmission across regions, freeing up flows to meet demand more flexibly. This helps ensure that all available transmission is optimally used to allow surplus energy to move where it is needed, reducing situations where surplus power is available in real-time but cannot be

dispatched because there is not sufficient transmission. This is especially important in stressed grid conditions when deficient BAAs are looking to import as much energy as possible.

4. **Resource Sufficiency Evaluation** – The EDAM design includes a Resource Sufficiency Evaluation which enhances regional reliability by providing a robust measure of resource sufficiency in the day-ahead. The test ensures that EDAM entities have sufficient generation capacity and interchange to meet their forecasted demand and reserve requirements. By testing EDAM entities independently before engaging in market transfers, the test ensures that no entity is avoiding prudent day-ahead resource adequacy planning by “leaning” on the surplus capacity of other market participants. This process promotes transparency and accountability, ultimately contributing to a more reliable and resilient market framework.
 5. **Imbalance Reserve Product** – The imbalance reserve product ensures that there is known, committed flexibility in the footprint to handle variations in load and variable energy resource (VER) forecasts that arise between day-ahead and real-time. Imbalance reserves ensure there are resources on standby to ramp up or down in case actual renewable output or electricity demand is lower or higher than expected. This helps the grid adapt smoothly between day-ahead and real-time, avoiding shortfalls in real time that could lead to reliability issues. EDAM procures reserves in the day-ahead based on expected forecast uncertainty so that system operators enter real-time operations with confidence that flexibility is available, reducing the need for emergency procurement or more drastic actions like load shedding or emergency alerts. EDAM participants contribute and share access to imbalance reserves, creating a larger base of flexible supply that can be used across the region.
- (b) Any attempt to quantify an expected reduction of emergency conditions would be pure speculation and the Company has not attempted to do so.

Respondent: Daniel Politoski

Witness: Michael G. Wilding

OCA Data Request 1.7

Referring to the Direct Testimony of Mr. Wilding, page 11, lines 1-2, Mr. Wilding states “[t]he Company is on track to meet the expected go-live date for the second quarter of 2026”. Following this statement, Mr. Wilding provides Figure 2 on line 3, which shows the Milestones for PacifiCorp Participation in the EDAM. Please identify any milestones that are currently delayed or at risk of delay.

Response to OCA Data Request 1.7

There are currently no milestones delayed or at risk of delay.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

OCA Data Request 1.8

Referring to Company Exhibit 2.3, Page 4, “Updated PacifiCorp EDAM Benefits”:

- (a) Please provide a detailed breakdown of the increase in the Company's expected Adjusted Production Cost benefit from \$64 million to \$117 million, including all assumptions, input variables, and modeling parameters that contributed to this increase.
- (b) Please provide a detailed breakdown of the increase in the Company's expected EDAM Congestion Revenues benefit from \$37 million to \$141 million, including the specific transmission paths accounting for the largest portions of this increase.
- (c) With respect to the expected \$16 million in wheeling revenues, please confirm whether this remains the current expected EDAM impact to wheeling revenues, and if not, provide the updated figure and explanation for any change.
- (d) Please define "Reduced Bilateral Trading Value" as presented in the exhibit, explain how it is calculated, and describe why it represents a cost rather than a benefit.
- (e) Referring to Footnote 1 of the Table labeled "Summary of PacifiCorp Benefits (\$ Millions)", please define "TRR settlements" and explain how they are calculated, who receives these settlements, and under what circumstances they would be triggered.

Response to OCA Data Request 1.8

- (a) Referencing the direct testimony of Company witness, Michael G. Wilding, specifically the Brattle Group’s extended day-ahead market (EDAM) studies, Exhibit 2.2 (December 2023 PacifiCorp EDAM Participants Benefits Study) and Exhibit 2.3 (September 2024 PacifiCorp EDAM Simulation Using 2024 Updated IRP), the Company responds as follows:

The changes in assumptions, input variables, and modeling parameters between the Exhibit 2.2 (the 2023 Study) and Exhibit 2.3 (the 2024 Updated IRP Study) are provided in Exhibit 2.3, pages 7 and 8.

The assumptions, input variables and modeling parameters that are consistent between the 2023 Study and 2024 Updated IRP Study are discussed by Brattle in detail in Exhibit 2.2, Appendix A.

The increase in the Company’s Adjusted Production Cost (APC) benefit was largely driven by the expansion of the EDAM footprint, which allowed for more optimal dispatch of resources to serve energy demand across the footprint. This can be seen in a breakdown of the increased APC benefit for the PacifiCorp East (PACE) and PacifiCorp West (PACW) balancing areas (BA).

For PACE, the APC benefit increased from approximately \$53.86 million in the 2023 Study to approximately \$59.67 million in the 2024 Updated IRP Study. More detailed information on PACE's APC benefit in the 2024 Updated IRP Study is provided in Exhibit 2.3, page 16. A contributing factor to this increase was increased trade with the NV Energy BA, which was not modeled in the EDAM footprint in the 2023 Study. The efficient transfer of energy between PACE and NV Energy contributed to the increase in APC benefits for PACE. In the 2024 Updated IRP Study, the increase in trading with NV Energy between the business-as-usual (BAU) case and the EDAM case was approximately 7,000 gigawatt-hours (GWh), as seen in Exhibit 2.3, page 20. In the 2023 Study, the increase was approximately 1,000 GWh.

PACW results showed the same trend in benefits as PACE. The addition of PGE and Seattle City Light to the EDAM footprint in the 2024 Updated IRP Study increased the efficient dispatch of resources, which in turn led to an increase in APC benefits. In the 2023 Study, the APC benefits were approximately \$9.96 million whereas the 2024 Updated IRP Study APC benefits were approximately \$57.3 million, as seen in Exhibit 2.3, pages 17 and 18. In the 2024 Updated IRP Study, trade in the EDAM between PACW, PGE and Seattle City Light increased by approximately 2,423 GWh compared to the BAU case, as seen in Exhibit 2.3, pages 21 and 22. In the 2023 Study, trading did not increase from the BAU case to the EDAM case.

The differences in trading volumes for PACE and PACE from the 2023 Study to the 2024 Updated IRP Study shows that the Brattle model found increased, economic trading by PacifiCorp when the EDAM footprint expanded. As stated by Brattle in Exhibit 2.3, page 6, PACE benefits were driven by increased economic dispatch of gas resources while PACW benefits were driven by a reduction in generation and purchase costs in addition to a larger pool of potential trading partners in the EDAM.

- (b) The EDAM congestion revenues increased between the 2023 Study and the 2024 Updated IRP Study because the expanded footprint induced more electricity flow throughout the EDAM footprint. As explained in Exhibit 2.1 (April 2023 PacifiCorp EDAM Simulation) to Michael Wilding's direct testimony, page 32 and 33, PacifiCorp received an increase in transfer and congestion revenues in the EDAM due to expanded transmission connectivity with the majority of other EDAM BAs and the de-pancaking of transmission rates. An explanation of transfer and congestion revenues can be seen in Exhibit 2.1, page 26. As explained in the Company's response to subpart (a) above, the expanded EDAM footprint in the 2024 Updated IRP Study led to an increase of electricity flow in the simulation between PacifiCorp and neighboring BAs. The increased flow between PacifiCorp and neighboring EDAM BAs also increased flow on transmission within the PacifiCorp BAs, which in the simulation, led to increased congestion revenues that were allocated to PacifiCorp.

As explained above, the additional transmission capacity between EDAM BAs, modeled in the 2024 Updated IRP Study, resulted in heightened congestion revenues due to energy routed through transmission pathways to and between EDAM BAs. However, the heightened transmission pathways did not result in additional EDAM congestion revenues to PacifiCorp directly. Based on information provided by Brattle,

the following transmission paths contributed to an increase in PacifiCorp congestion revenues from the 2023 Study to the 2024 Updated IRP Study because they were used to facilitate increased (optimal) flows of energy:

Transmission Path	Increase in Congestion Revenues
PacifiCorp with Mid-Columbia (Mid-C) trading hub	\$58 million
PacifiCorp with California Independent System Operator (CAISO)	\$15 million
PacifiCorp and Idaho Power Company (IPC)	\$15 million
PacifiCorp and PGE	\$13 million
PacifiCorp and NV Energy	\$10 million

- (c) PacifiCorp confirms that the \$16 million in wheeling revenues is the most recent expected impact on wheeling revenues as determined by the Brattle’s EDAM simulation.
- (d) “Reduced Bilateral Trading Value” represents the lost value of day-ahead bilateral trading for PacifiCorp by participating in the EDAM, as determined by the Brattle EDAM simulation. An explanation of bilateral trading profits is provided by Brattle in Exhibit 2.2, page 28. All the lost value from a reduction in bilateral trades is offset by the Company trading with other EDAM entities in EDAM.

The “Reduced Bilateral Trading Value” is determined by simulating PacifiCorp’s trading activity in the BAU case and in the EDAM case. The values in Exhibit 2.3, page 4, compare the day-ahead simulation with the BAU simulation.

Today, PacifiCorp engages in the bilateral market to reduce net power costs (NPC) from purchases and generate revenue for sale opportunities. The “Reduced Bilateral Trading Value” represents a cost in the 2023 Study and 2024 Updated IRP Study because, in both cases, there was less value from bilateral trading when compared to the BAU case thus constituting a cost or a loss of revenue in EDAM when compared to BAU. More details on how the volume of PacifiCorp’s trading activity changes between the BAU case and the EDAM case is provided in Exhibit 2.3, pages 13, 20 and 21. The costs and revenues associated with bilateral trades are determined using the PacifiCorp load-weighted energy prices and generation-weighted energy prices, as explained in Exhibit 2.3, page 27.

- (e) Transmission Revenue Recovery (TRR) is an EDAM settlements design that allows EDAM Entities to recover lost transmission revenues of short-term firm (STF) and non-firm (NF) transmission revenues that occur as a result of participating in EDAM. The TRR design allows for the EDAM Entity to recoup revenue due to decreased sales of short-term transmission. Brattle provides an explanation for how TRR is calculated in their study for PacifiCorp in Exhibit 2.2, pages 28 and 29.

In the study, EDAM BAs that experience a reduction in wheeling revenues from the BAU case to the EDAM case receive a settlement amount. The settlement amount is paid for by EDAM BAs that experience an increase in wheeling revenues. As explained by Brattle in Exhibit 2.3, page 4, TRR settlements for the EDAM footprint are zero.

Respondent: Vijay Singh

Witness: Michael G. Wilding

OCA Data Request 1.9

Referring to Company Exhibit 2.3, Page 5, “Updated EDAM Footprint Benefits”:

- (a) Please reconcile why the EDAM footprint is expecting significantly decreased wheeling revenues (from -\$103 million to -\$208 million) while PacifiCorp's expected reduced wheeling revenues increased from \$8 million to \$16 million.
- (b) Please reconcile why the EDAM footprint is expected to have significantly decreased bilateral trading value (from -\$256 million to -\$531 million) while PacifiCorp's expected impact remains largely unchanged at approximately -\$150 million.
- (c) Please explain whether these disproportionate impacts on wheeling revenues and bilateral trading values were anticipated, and if so, why PacifiCorp is less affected than other EDAM participants.

Response to OCA Data Request 1.9

- (a) As described in the direct testimony of Company witness, Michael G. Wilding, Exhibit 2.3 (September 2024 PacifiCorp EDAM Simulation Using 2024 Updated IRP), page 28 (the 2024 Updated IRP Study), wheeling revenues are collected by the exporting balancing area (BA) based on transmission rates for bilateral trades. Wheeling revenues are not collected on extended day-ahead market (EDAM) transfers. Therefore, the increased size of the EDAM footprint in the Brattle’s 2024 2024 Updated IRP Study compared to the Brattle’s December 2023 PacifiCorp EDAM benefits study (2023 Study), provided as Exhibit 2.2 to Michael Wilding’s direct testimony, decreased the amount of wheeling revenue that was collected by entities due to a reduction in bilateral trades and increase in organized market transfers.

However, Brattle Group’s simulated model showed an increase in PacifiCorp’s wheeling revenues due to the geographic location of its transmission system which effectuated bilateral trading with non-EDAM entities. The majority of wheeling revenues realized were from the Western Area Power Administration Colorado Missouri (WACM) BA, which was modeled as a non-EDAM balancing area. In Brattle’s 2024 Updated IRP Study, PacifiCorp earned approximately \$23 million more in wheeling revenues from WACM in EDAM compared to the business-as-usual (BAU) case. In the 2023 Study, PacifiCorp earned approximately \$4.75 million in wheeling revenues from WACM in EDAM compared to the BAU case. Increased bilateral trading between PacifiCorp East (PACE) and WACM in the 2024 Updated IRP Study, which used PACE transmission, led to PacifiCorp collecting more wheeling revenue in the 2024 Updated IRP Study compared to the 2023 Study.

- (b) Similar to the Company’s response to subpart (a) above, the expanded EDAM footprint in the 2024 Updated IRP Study created conditions where EDAM transfers were more favorable than bilateral trading in general. However, since the PacifiCorp BAs are at the edge of the simulated EDAM footprint, the Brattle study found that

PacifiCorp still had opportunities for mutually beneficial bilateral trades, resulting in the largely unchanged bilateral trading impact.

In both the 2024 Updated IRP Study and the 2023 Study, the simulation found that PacifiCorp bilaterally traded significant amounts of energy with Arizona Public Service (APS), Northwestern Montana, WACM and makes bilateral trades at the Mid-Columbia (Mid-C) trading hub. The simulation also found that PacifiCorp did not bilaterally trade significantly with NV Energy, Portland General Electric (PGE), or Seattle City Light, which were the three BAs that were added in the 2024 Updated IRP Study. Instead, Brattle's simulation found a large decrease in bilateral trading value for the EDAM from the 2023 Study to the 2024 Updated IRP Study because the BAs that were added to the footprint were trading significant volumes of energy bilaterally in the 2023 Study simulation, but not in the 2024 Updated IRP Study simulation.

- (c) PacifiCorp did not have preconceptions of how changes to wheeling revenues and bilateral trading would affect the Company compared to the EDAM footprint as a whole. The general takeaways from Brattle's study on wheeling revenues and bilateral trading indicate that wheeling revenues and bilateral trading will decrease generally but continue to exist, especially for EDAM entities that are on the border of the footprint. The location and geographical coverage and connectivity with other BAs makes PacifiCorp unique compared to other entities. As Brattle explains in Exhibit 2.1 (April 2023 PacifiCorp EDAM Simulation) to Michael Wilding's direct testimony, page 32, PacifiCorp is the most transmission connected entity in the EDAM and is well connected with entities simulated to be outside the EDAM footprint, as seen on a figure showing the physical transmission modeled in the Brattle studies in Exhibit 2.2, page A-4.

Respondent: Vijay Singh

Witness: Michael G. Wilding

OCA Data Request 1.10

Referring to Company Exhibit 2.3, Page 6, “Drivers of PacifiCorp’s EDAM Benefits”:

- (a) Please provide a comprehensive breakdown listing all generation assets that are being reduced for PACW in the statement "PACW is both able to reduce its generation 360 GWh in EDAM...".
- (b) For each listed asset, please specify the anticipated reduction in generation in GWh and the associated cost savings.
- (c) Please explain whether these reductions represent changes in unit commitment, dispatch levels, or both.
- (d) Please explain how these reductions would be balanced against any system reliability requirements.

Response to OCA Data Request 1.10

- (a) The direct testimony of Company witness, Michael G. Wilding, Exhibit 2.3 (September 2024 PacifiCorp EDAM Simulation Using 2024 Updated IRP), page 24, shows the average generation change in the PacifiCorp West (PACW) balancing authority (BA) by resource type. The figure (PACW Change in Average Generation by Hour of Day – EDAM – BAU Case) shows a decrease in gas resource dispatch throughout the day, but mostly during the middle of the day when the BA has access to excess solar energy coming from California. PacifiCorp’s takeaway from the drivers of the extended day-ahead market (EDAM) benefits for PacifiCorp is that the Company will have access to a diverse resource pool that will ultimately lead to lower wholesale electricity costs.

Please refer to Confidential Attachment OCA 1.10 which provides the Brattle Group’s (Brattle) study results on the change in generation dispatch between the business-as-usual (BAU) case and the EDAM case.

- (b) Please refer to Confidential Attachment OCA 1.10 which provides the change in generation and variable cost for each resource in PacifiCorp West (PACW) from the Brattle simulation of the BAU case and the EDAM case.
- (c) The reductions include changes in unit commitments and dispatch levels. Please refer to Confidential Attachment OCA 1.10.
- (d) The reduction in generation predicted by the EDAM study will have no negative impact on system reliability. PacifiCorp meets its system reliability requirements outside of any organized market and will continue to do so in the EDAM. The mechanism by which the Company meets its system reliability requirements is by withholding resource capacity from the market so that PacifiCorp operators have sufficient generation to meet system reliability needs.

Confidential information is provided subject to Chapter 2, Section 30 of the Wyoming Public Service Commission's rules, Wyo. Stat. §16-4-203(a), (b), (d), or (g), and to the petition for confidential treatment and protective order that will be filed in this proceeding. Confidential information will be made available to non-governmental parties who execute a non-disclosure agreement (NDA).

Respondent: Vijay Singh

Witness: Michael G. Wilding

OCA Data Request 1.11

Referring to Company Exhibit 2.3, Page 11, “Generation Results (2 of 2)”:

- (a) Please define the "GHG Zone" referenced on this page, including its geographical boundaries, applicable regulations, and how these factors affect market operations.
- (b) Please explain in detail why PacifiCorp expects no large change in its renewable curtailments due to the EDAM, particularly given that:
 - i. The document states on page 11 that "Total EDAM footprint curtailments fall about 9 TWh, nearly double the 2023 study", and
 - ii. One of the previously indicated benefits of the EDAM was reducing renewable curtailments.
- (c) Please identify any specific characteristics of PacifiCorp's renewable fleet or transmission system that limit potential reductions in renewable curtailment compared to other EDAM participants.

Response to OCA Data Request 1.11

- (a) “GHG Zones” are established as a direct outcome of price-based emissions reduction policies implemented by air regulators, such as the California Air Resources Board’s (CARB) Cap-and-Trade program and the Washington Department of Ecology’s (Ecology) Cap-and-Invest program. The organized market accommodates these programs by allowing participants to voluntarily bid their resources into these areas using greenhouse gas (GHG) bid adders which signal of a participant's willingness for its resource(s) to be deemed to serve load in a price-based state (i.e., California or Washington).

For the purposes of organized market transactions, the PacifiCorp system, as a multi-jurisdictional utility, is treated as “outside” the state by defining its assignment of power to Washington as an “import”. Please refer to the definition of “Imported electricity” at Revised Code of Washington (RCW) 70A.65.010(43)(e)¹ and “Electricity Importer” at RCW 70A.65.010(27)(e) and Washington Administrative Code (WAC) 173-441-124(2)(f)(iv)² in Washington. In California, this similar treatment of the PacifiCorp system being an “importer” has existed in regulation since 2010 and is articulated in California Code Regulations title 17 § 95111 “Data Requirements and Calculation Methods for Electric Power Entities”, section (4) “Calculating GHG Emissions of Imported Electricity for Multi-Jurisdictional Retail Providers”.³ These programs were created to regulate emissions by putting a price on carbon emitting resources for market transactions that enter the state – i.e., California and Washington. The “GHG Zones” referenced in the direct testimony of Company witness, Michael G. Wilding, Exhibit 2.3 (September 2024 PacifiCorp EDAM

¹ [Chapter 70A.65 RCW: GREENHOUSE GAS EMISSIONS—CAP AND INVEST PROGRAM](#)

² [Chapter 173-441 WAC:](#)

³ [Unofficial Electronic Version of the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions \(2018\)](#)

Simulation Using 2024 Updated IRP), page 11 is California and Washington (the 2024 Updated IRP Study).

- (b) The Brattle Group's (Brattle) study results showed a total reduction of renewable curtailments of 9 terawatt-hours (TWh) in the extended day-ahead market (EDAM) footprint, which was primarily driven by California solar. As explained by Brattle in the 2024 Updated IRP Study (Exhibit 2.3, page 14), the increase in curtailment reductions in the EDAM from the Brattle's 2023 is driven by a larger EDAM footprint, an increase in transmission capability from new transmission projects, and changes to the modeled resource mix of many of the study participants. The changes described by Brattle provide greater access to excess variable energy resource (VER) supply, enabling better management of VER resources since supply is not confined within the native system.

There is no expectation of large VER curtailment changes between the 2023 Study (Exhibit 2.2 (December 2023 PacifiCorp EDAM Participants Benefits Study) and the 2024 Updated IRP Study due to the updates described Exhibit 2.3, page 8. In the 2024 Updated IRP Study, the Brattle simulation found a slight increase in the volume of renewable curtailments, specifically of solar energy. Exhibit 2.3, page 23, shows an increase in PacifiCorp East (PACE) solar curtailments during midday hours. Brattle's interpretation of the simulation results is a small portion of PacifiCorp's solar generation is unused because it is displaced by solar generation from the California Independent System Operator (CAISO). In other words, the CAISO solar generation is dispatched in the simulation instead of a portion of the PacifiCorp solar generation because the CAISO solar can be transferred to loads across the EDAM more efficiently. This same scenario does not happen in the business-as-usual (BAU) simulation because the BAU contains a constraint on the amount of energy the CAISO can export.

- (c) PacifiCorp has a diverse transmission system, much like other EDAM participants, which allows the Company to optimize the Company's transmission system and resources. PacifiCorp's transmission system, coupled with its geographical position relative to other EDAM participants', allows for ample opportunity to limit potential reductions in VER curtailments. As described by Brattle in Exhibit 2.3 and described in the Company's response to subpart (b) above, curtailments of PacifiCorp's VER generation is impacted by the transmission connectivity and resource fleets of other EDAM entities, specifically the CAISO's. The Brattle study indicates in Exhibit 2.3, page 23, that CAISO solar generation increases PacifiCorp East (PACE) solar curtailments because the solar coming from the CAISO is more economical to meet load across the EDAM footprint.

Respondent: Nadia Kranz / Vijay Singh

Witness: Michael G. Wilding

OCA Data Request 1.12

Referring to Company Exhibit 2.3, Page 12, “Seasonal Generation Results”:

- (a) Please provide a detailed explanation of the "net export constraint" mentioned on this page.
- (b) Please explain the specific mechanisms by which the EDAM "releases" this net export constraint.

Response to OCA Data Request 1.12

- (a) The extended day-ahead market (EDAM) net export constraint is a reliability tool in the EDAM market design available to EDAM Entities interested in limiting excess capacity from being optimized by the day-ahead market. The constraint is set on an hourly basis in advance of the EDAM Resource Sufficiency Evaluation (RSE) 10:00am (Pacific Time) binding market run. The EDAM Entity can adjust two parameters within the calculation (shown below) called the confidence factor and the reliability margin on an as needed basis. The confidence factor can be set based on the volume of anticipated non-deliverable generation into the PacifiCorp balancing authority areas (BAA) and the reliability margin is capacity set aside that can be held back from the market to address other operational reliability considerations to maintain system reliability. The calculation is as follows:

EDAM Net Export Constraint = RSE Eligible Supply + (Non-RSE Eligible Supply * Confidence Factor) – RSE Obligation – Reliability Margin

Where:

- RSE Eligible Supply: Contracted supply that counts towards the RSE.
- Non-RSE Eligible Supply: Supply that does not qualify for RSE eligible supply (not contracted).
- RSE Obligation: EDAM Entity’s Day-Ahead RSE obligation is based on load forecast, uncertainty requirement, ancillary service requirements, and exports.
- Confidence Factor: Accounts for risk of non-delivery or non-performance from supply internal to the BAA and is used in the calculation as a percentage between 0 percent and 100 percent.
 - 100 percent = Highest confidence and 0 percent = No confidence.
- Reliability Margin: Additional amount of capacity configured by the EDAM Entity that reduces the limit on the BAA’s net EDAM export transfer to account for reliability and ability to replace reserves.

- (b) In Exhibit 2.3 (September 2024 PacifiCorp EDAM Simulation Using 2024 Updated IRP), page 12 (2024 Updated IRP Study), the Brattle Group (Brattle) uses the term “released” to mean that the net export constraint was not active in the EDAM scenario but was active in the business-as-usual (BAU). The EDAM net export constraint is an optional reliability tool that each EDAM Entity can use at their own discretion. If an EDAM Entity chooses to use the constraint, the EDAM Entity needs to instruct the market operator to release the constraint using the same communications it used to enact the constraint. Thus, the Brattle 2024 Updated IRP Study modeled the California Independent System Operator (CAISO) as if the net export constraint was being used in the BAU case, but not in the EDAM case.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

OCA Data Request 2.1

Referring to FERC Docket No. ER25-951-000, PacifiCorp Attachment “PAC EDAM Transmittal_FINAL.pdf”, page 14, section 3, the Company states “Under the EDAM, all resources in the PacifiCorp BAAs will have to participate in the market. So, the distinction between ‘participating’ and ‘non-participating’ resources simply goes away”.

- (a) Please reconcile this statement with the Company’s Application, page 5, paragraph d, in which the Company states “Resource bidding will remain under the discretion of the resource owner [...]. The EDAM design does not require economic bids from all generating resources”.
- (b) Please clarify whether all resources in the PacifiCorp BAAs must participate in the EDAM market, and if so, what form this participation must take if economic bids are not required.
- (c) Please explain the distinction, if any, between "participating in the market" and "submitting economic bids”.
- (d) Please describe all bidding options available to resource owners under the EDAM design, including any non-economic bidding mechanisms.
- (e) Please identify any categories of resources that would be exempt from the EDAM participation requirements.

Response to OCA Data Request 2.1

- (a) This is accurate because a participating resource can choose either to submit Economic Bids or Self-Schedules under the extended day-ahead market (EDAM). It is true that the EDAM design does not require Economic Bids from generating resources, and the decision to either submit Economic Bids or Self-Schedules is entirely up to the resource owner via their scheduling coordinator. If a resource wishes to be dispatched based on dispatch cost, they can submit Economic Bids allowing the market to award the resource based on cost-effectiveness. If a resource owner wishes to generate at a specified output regardless of price, they can submit a Self-Schedule.
- (b) All resources in the PacifiCorp balancing authority area (BAA) must participate in the EDAM, however, as part of its initial Open Access Transmission Tariff (OATT) revision filing with the Federal Energy Regulatory Commission (FERC) to implement EDAM, PacifiCorp proposed in Section 1.39 to limit that requirement to resources with a net output of 3 megawatts (MW) or more. However, as explained in PacifiCorp’s April 28, 2025 response to a deficiency notice issued by FERC in the OATT proceeding, PacifiCorp explained that the 3 MW threshold was chosen based on Oregon state regulatory requirements prohibiting utilities from imposing requirements to install, operate and maintain metering infrastructure on generating facilities that are 3 MW or less. Upon further consideration, PacifiCorp believed that strict application of the 3 MW threshold was not necessary if the resource is able to

- meet all other requirements for market participation applicable to resources under PacifiCorp's Tariff and the California Independent System Operator's (CAISO) Tariff. Thus, if FERC accepts this modification, resources less than 3 MW may choose to participate in EDAM, if they meet all other market participation requirements, but are not required to participate.
- (c) The distinction is that resource participation refers to more than simply whether a resource owner submits Economic Bids or Self-Schedules. Participating in EDAM means being registered, modeled, visible, and appropriately scheduled or bid into the day-ahead market. Submitting Economic Bids is a form of market participation where the market can dispatch a resource up or down depending on market prices relative to the resource's economic bid price. If a scheduling coordinator wishes for a resource not to be dispatched by the market, they can submit a Self-Schedule, which is awarded not based on economics.
 - (d) There are four types of bids: Energy Bids, Ancillary Service Bids, Imbalance Reserve Bids, and Reliability Unit Commitment (RUC) Availability Bids. As described in Section 4 of the PacifiCorp revised OATT, the EDAM will not co-optimize or procure Ancillary Services, therefore, this bid type only applies to resources inside the CAISO BAA. Energy Bids can be submitted as either an Economic Bid or a Self-Schedule. All other bid types must be submitted as Economic Bids. Economic Bids specify prices for MW amounts of capacity and megawatt-hours (MWh) amounts of energy. Self-Schedules do not have any prices associated for MW or MWh. Imbalance Reserve Bids are a single price-quantity pair that reflect a resource's willingness to provide economic bid capacity through real-time should net load forecast uncertainty materialize. RUC Availability Bids are submitted to ensure resource availability for reliability purposes and generally indicate the price at which a resource is willing to be committed to provide capacity if needed. Rules for submitting the four types of bids are described in Section 30.5 of the CAISO FERC-Approved Tariff language¹.
 - (e) Per Section 1.39 of PacifiCorp's revised OATT currently under consideration by FERC, resources with a net output capacity of less than 3 MW will not be considered for the EDAM. However, as noted in answer (b), the final minimum threshold for participation will be set as part of the OATT proceedings with FERC.

Respondent: Daniel Politoski / Robert Eckenrod

Witness: Michael G. Wilding

¹ [conformed-tariff-as-of-feb-5-2025.pdf](#)

OCA Data Request 3.1

Please explain in detail the timing of resource commitment (including generation dispatch and transmission capacity) of PacifiCorp's resources in the Extended Day-Ahead Market (EDAM).

Response to OCA Data Request 3.1

Extended day-ahead market (EDAM) participants submit their day-ahead load, resource, ancillary service and transmission plan into the day-ahead market prior to the 10:00am Pacific Time market closure. The California Independent System Operator's (CAISO) day-ahead market will commit resources during the integrated forward market (IFM) run. Since the IFM clears financial bids, the CAISO has an additional market clearing process called Residual Unit Commitment (RUC) process. The purpose of the RUC is to award generation that is needed to meet demand in the market footprint. The market will then publish its optimization results at 13:00 Pacific Time which are financially binding schedules.

After the day-ahead market results are published, PacifiCorp will then submit its real-time bids. These bids will reflect the optimized day-ahead schedules (published at 1:00pm Pacific Time) but also any changes to the resource schedules PacifiCorp requires to ensure continued reliability. Submission of real-time bids is a process PacifiCorp does today that will not change. If there needs to be a change to the resource schedule, PacifiCorp will have the ability to do so until 55 minutes prior to the start of each operating hour.

PacifiCorp will continue to comply with all national and regional reliability requirements. PacifiCorp retains the control of maintaining area control error (ACE) and frequency response, as well as deployment of contingency reserves. PacifiCorp generation operators will continue to serve as the primary contact with its plant operators regarding system needs and will adjust market generation availability as needed to maintain system reliability. PacifiCorp has committed to participating in EDAM but maintains discrete operational control of its resources to ensure participation does not compromise reliability.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

OCA Data Request 3.2

Regarding the Company's short-term transmission wheeling revenues:

- (a) Please explain in detail the Company's usual timelines and processes for conducting short-term transmission capacity sales.
- (b) Please provide the Company's historical annual short-term wheeling revenue for the past five years.
- (c) Please provide quantitative analysis showing how EDAM participation is anticipated to impact the Company's short-term wheeling revenues. Please include any worksheets associated with this analysis in native format with intact formulae.
- (d) Please provide the amount of transmission capacity (in MW and as a percentage of total capacity) that is anticipated to be reserved for EDAM commitments that would otherwise be available for short-term transmission capacity sales.
- (e) Please provide analysis and explanation on how much revenue is expected from the CAISO EDAM Access Charge, and to what extent this revenue is expected to offset the reduction in short-term transmission capacity sales. Please include all analytical worksheets in their native format with formulas intact.

Response to OCA Data Request 3.2

- (a) Transmission customers can execute a blanket service agreement that allows customers to transact and acquire transmission reservations on a short-term and non-firm basis. Customers can acquire transmission capacity if available through reserving transmission on PacifiCorp's Open Access Same-time Information System (OASIS) for various durations as outlined in PacifiCorp's Open Access Transmission Tariff (OATT). Customers can reserve and schedule up until the deadline, which is 20 minutes prior to the operating hour.
- (b) Please refer to Attachment OCA 3.2 which provides a summary of short-term wheeling revenue recorded from 2020 through 2024. PacifiCorp has a formula rate that adjusts the projected rate each June.
- (c) The Company has not performed the analysis. The Company expects short-term firm (STF) and non-firm (NF) wheeling revenues to decrease as a result of extended day-ahead market (EDAM). However, the EDAM access charge is in place to compensate for such decreases in revenue. Please refer to the Company's response to subpart (e) below. The Brattle Group's (Brattle) benefits studies, provided with the direct testimony of Company witness, Michael G. Wilding, did estimate the difference in wheeling revenues between the EDAM case and the base case. However, these numbers are influenced by multiple factors including the formation of Regional Transmission Organization (RTO) West, market footprint, and new generation and resources expected to be online in 2032.

- (d) The Company will continue to sell STF and NF transmission. However, it is likely that the existence of a day-ahead market will cause changes in the current bilateral market, in which much of the West transacts today. Transmission is made available to EDAM in four ways; (1) the firm transmission used to pass the resource sufficiency evaluation (RSE), (2) transmission that is turned over to the market daily by the transmission customer, (3) transmission that is left unscheduled by the transmission customer, or (4) unsold transmission by the transmission service provider. The transmission amounts in (3) and (4) represent transmission that would otherwise be available to sell as STF or NF. This transmission is not reserved for EDAM, rather it is made available to EDAM if it is not reserved by a transmission customer. The amount of transmission capacity made available and ultimately used by EDAM in the above categories (3) and (4) will be impacted by a myriad of factors including loads, generation and transmission resource available, weather, and market footprint.
- (e) The Company has not performed the requested analysis. However, the intent of the EDAM access charge is to make entities whole for the lost STF and NF wheeling revenues as a result of EDAM. Please refer to the California Independent System Operator's (CAISO) tariff Section 33.26.1

Respondent: Vijay Singh / Ernie Knudsen

Witness: Michael G. Wilding

OCA Data Request 3.3

Please explain in detail the process by which PacifiCorp ensures resource sufficiency for its Balancing Authority Areas (BAAs) for participation in the EDAM, including:

- (a) The specific resource adequacy metrics and thresholds that must be met.
- (b) The timing of resource sufficiency evaluations relative to the EDAM.
- (c) The consequences of failing resource sufficiency evaluations, including any financial penalties or operational restrictions.
- (d) Whether resource sufficiency is evaluated separately for PACE and PACW.
- (e) Any differences in how resource sufficiency requirements are calculated between the two BAAs.
- (f) The extent to which resources in one balancing authority area can contribute to resource sufficiency in the other.

Response to OCA Data Request 3.3

- (a) There are three main components to the extended day-ahead market (EDAM) Resource Sufficiency Evaluation (RSE): Demand and generation balance, Imbalance Reserves, and Ancillary Services. These requirements, metrics and thresholds are described in detail in section 33.31.1.2 and 33.31.1.3 of the California Independent System Operator's (CAISO) Federal Energy Regulatory Commission (FERC) approved tariff¹ language for EDAM and day-head market enhancements (DAME).
- (b) The EDAM RSE runs multiple times between 6:00am Pacific Time and 10:00am Pacific Time the morning before the operating day. The results between 6:00am Pacific Time and 09:30am Pacific Time are advisory, and not financially or operationally binding, but rather informational, providing ample time and opportunities to cure any shortfalls. The final RSE run at 10:00am Pacific Time is the binding RSE run that is the final determination on whether the EDAM Entity passes or fails.
- (c) EDAM participants can cure deficiencies through the day-ahead market if sufficient excess supply from the EDAM footprint is offered into the integrated forward market (IFM). If the market can cure the full insufficiency, the entity will be evaluated jointly with the other passing EDAM entities for the Western energy imbalance market (WEIM) RSE. If the market cannot cure the deficiency, the participant will not be pooled in the WEIM RSE with the other passing EDAM participants for the hours of failure. The EDAM RSE includes a financial penalty for failure in the form of a

¹ [conformed-tariff-as-of-feb-5-2025.pdf](#)

surcharge settlement. This settlement is described in detail in section 33.31.1.5 of the CAISO FERC-approved tariff² language for EDAM and DAME enhancements.

- (d) In EDAM, the PacifiCorp East (PACE) balancing authority area (BAA) and the PacifiCorp West (PACW) BAA will be tested as two separate EDAM BAAs for the EDAM RSE. This is in line with the current treatment of PACE and PACW in the WEIM Resource Sufficiency Evaluation.
- (e) There are no differences in how the EDAM RSE requirements are calculated for PACE and PACW.
- (f) PacifiCorp has the ability in EDAM to transfer energy between PACE and PACW, as done today in the WEIM, to optimize the system. PacifiCorp will ensure it meets its resource sufficiency requirements in both BAAs utilizing this mechanism if needed.

Respondent: Daniel Politoski

Witness: Michael G. Wilding

² [conformed-tariff-as-of-feb-5-2025.pdf](#)

OCA Data Request 3.4

If resources in one BAA (PACE or PACW) can contribute to resource sufficiency in the other, please explain in detail:

- (a) The extent to which either PACE or PACW relies on resources located outside of its own BAA for resource sufficiency (expressed in MW and as a percentage of total resource sufficiency requirements).
- (b) The compensation mechanism(s), if any, through which each BAA is compensated for the use of its resources for ensuring resource sufficiency in the other BAA.
- (c) The potential impacts on EDAM participation if cross-BAA resource sharing becomes more limited.
- (d) Any contingency plans developed to address potential changes in how system resources are shared between BAAs and states.

Response to OCA Data Request 3.4

- (a) PacifiCorp has a diverse transmission system which allows the Company to optimize the Company's transmission to transfer energy between the PacifiCorp East (PACE) balancing authority area (BAA) and the PacifiCorp West (PACW) BAA to meet resource sufficiency requirements. PacifiCorp declines in expressing this in megawatts (MW) or as a percentage of total resource sufficiency requirements as PacifiCorp does not have this information readily available and does not perform analysis on specific resources that are used for the resource sufficiency evaluation (RSE).
- (b) No. There is no compensation mechanism for the usage of resources in one BAA in the other.
- (c) If cross-BAA resource sharing were more limited PacifiCorp does not expect any change in PACE or PACW ability to participate in the market.
- (d) PacifiCorp does not have contingency plans with respect to how resources are used to meet electricity demand across the PacifiCorp service area. Any change in how system resources are allocated between BAAs and states are only for the purpose of allocating net power costs (NPC), and do not affect the EDAM RSE or the Western energy imbalance market (WEIM) RSE for either BAA.

Respondent: Daniel Politoski

Witness: Michael G. Wilding

OCA Data Request 3.5

Please provide an estimated timeline for when FERC is expected to issue a decision on the Company's current OATT filing under Docket No. ER25-951-000.

Response to OCA Data Request 3.5

In its filing, PacifiCorp requested Federal Energy Regulatory Commission (FERC) action by no later than May 26, 2025; however, FERC issued a deficiency notice in the proceeding, seeking additional information on the filing on April 17, 2025. The issuance of the deficiency notice tolls the statutory time by which FERC must consider Open Access Transmission Tariff (OATT) amendments and it is unlikely that FERC will issue an Order by the requested date. However, it is estimated that FERC will issue an Order within the next 60 days.

Respondent: Rob Eckenrod

Witness: To Be Determined

OCA Data Request 4.1

Please provide detailed information regarding transmission customers that have indicated intentions to withdraw or have already withdrawn their OATT rights from PacifiCorp's system due to EDAM participation, including:

- (a) A complete list of all such transmission customers, identifying each by name and customer type (e.g., load-serving entity, independent power producer, marketer, etc.).
- (b) For each identified customer, the specific OATT rights being withdrawn or intended to be withdrawn (e.g., long-term firm point-to-point, network integration transmission service, etc.).
- (c) For each identified customer, the total capacity of the withdrawn or to-be-withdrawn transmission rights, expressed in megawatts.
- (d) For each identified customer, the annual revenue impact to PacifiCorp associated with the withdrawn or to-be-withdrawn rights, expressed in dollars.
- (e) For each identified customer, the location of the contract path or paths.
- (f) Any documented reasons provided by customers for withdrawing their OATT rights.
- (g) Any steps PacifiCorp has taken or plans to take to address or mitigate customer withdrawals of OATT rights.

Response to OCA Data Request 4.1

- (a) Please refer to the Company's response to WIEC Data Request 1.7.
- (b) Long-term point-to-point (PTP).
- (c) 780 megawatts (MW).
- (d) Estimated annual impact for 2024 prior to any estimated refunds or surcharges for the true-up is \$37 million. PacifiCorp has a formula rate and long-term PTP customers are subject to a true-up process. The true-up for 2024 has not been calculated but is expected to be a refund. Please refer to the Company's response to subpart (g) below for additional information.
- (e) 700 MW of rights are located on the Malin-to-Round Mountain paths in the California Independent System Operator's (CAISO) balancing area (BA). 80 MW are in the PacifiCorp West (PACW) balancing authority area (BAA).
- (f) Please refer to the Company's response to subpart (a) above.
- (g) All rights on Malin-to-Round Mountain paths have been requested by PacifiCorp's merchant function (energy supply management (ESM)). Since PacifiCorp has a

transmission formula rate the impact of transfer of rights to PacifiCorp is expected to not impact the formula rate but will cause wheeling revenues to decrease.

Respondent: Kris Bremer / Veronica Whitesmith / Ernie Knudsen

Witness: To Be Determined

OCA Data Request 5.1

Referring to Company's response to OCA Data Request 1.6:

- a. Please explain if PacifiCorp's retail customers could experience periods of higher energy costs due to emergency conditions elsewhere in the EDAM footprint impacting PacifiCorp's LMPs through issues such as parallel flow congestion.
- b. If so, please explain any protections in place to limit such cost impacts.

Response to OCA Data Request 5.1

- a. PacifiCorp's response assumes the data request's term "higher energy costs" refers to the difference in energy costs between emergency and non-emergency conditions in the EDAM. With this assumption PacifiCorp responds as follows:

LMPs within day-ahead electricity markets, including EDAM, are formed through complex market dynamics and can be impacted by things like emergency conditions and congestion from parallel flows. Regardless of how emergency conditions or congestion from parallel flows affects LMPs, PacifiCorp's retail customers do not pay the LMP at their location.
- b. As stated in response to (a) PacifiCorp retail customers do not directly pay the LMP at their location. Costs of load incurred through market activities do contribute to retail electricity rates, but rates are not exclusively set by the price PacifiCorp pays for loads within the EDAM.

Respondent: Vijay Singh

Witness: Michael G. Wilding

OCA Data Request 5.2

Please provide the specific methodology used to calculate Imbalance Reserve bids for the Company's resources under the EDAM.

Response to OCA Data Request 5.2

PacifiCorp has not finalized its bidding strategy for EDAM at the time of this request but plans to develop such a methodology during experience gained through its parallel operations phase of EDAM implementation activities.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

OCA Data Request 5.3

Referring to Company's response to OCA Data Request 1.6, paragraph 5 ("Imbalance Reserve Product"):

- a. When thermal resources acting as imbalance reserves are dispatched to cover renewable shortfalls, please explain the exact compensation mechanism applied.
- b. If a renewable resource clears the day-ahead market at a certain \$/MWh but fails to produce, requiring a gas resource with a higher \$/MWh marginal cost to be dispatched, what price does the gas resource receive and what price does the load pay?
- c. Please specifically address how any price discrepancies between day-ahead and real-time markets are resolved in such scenarios.

Response to OCA Data Request 5.3

- a. Please see the new and revised settlement charge codes for the extended day-ahead market (EDAM) which provide the compensation mechanisms:¹
 1. Settlement of procured imbalance reserves is based on the day-ahead award quantity and nodal pricing:
 - 8071 Day Ahead Imbalance Reserve Up (IRU) Settlement
 - 8081 Day Ahead Imbalance Reserve Down (IRD) Settlement
 2. Ramping capability provided by imbalance reserve awards in the day-ahead market will be settled against the flexible ramping product in the real-time market:
 - 7070 Flexible Ramp Forecast Movement Settlement
 - 7071 Daily Flexible Ramp Up Uncertainty Capacity Settlement
 - 7081 Daily Flexible Ramp Down Uncertainty Capacity Settlement
 3. Energy dispatched is settled under imbalance energy and flex ramp charge codes:
 - 64600 FMM Instructed Imbalance Energy EIM Settlement
 - 64700 Real Time Instructed Imbalance Energy EIM Settlement
- b. If a gas resource is dispatched in the scenario outlined in 5.3(b), it will receive the following settlement charge codes:
 - 7070 Flexible Ramp Forecast Movement Settlement
 - 7071 Daily Flexible Ramp Up Uncertainty Capacity Settlement
 - 7081 Daily Flexible Ramp Down Uncertainty Capacity Settlement
 - 64600 FMM Instructed Imbalance Energy EIM Settlement
 - 64700 Real Time Instructed Imbalance Energy EIM Settlement

The load settlement does not depend on the resource dispatch outlined in this scenario. The load settlement depends on the quantity of megawatts (MW) bid and cleared in the

¹ <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.caiso.com%2Fdocuments%2Fdame-and-edam-charge-code-change-summary-with-tariff-mapping.xlsx&wdOrigin=BROWSELINK>

EDAM versus the real-time load. The price the load pays is an aggregation of the load nodes in that BAA, called the Load Aggregation Point locational marginal price.

- c. Price differences between day-ahead and real-time markets are not resolved. Resources that receive energy schedules from the day-ahead market and are paid the day-ahead locational marginal price (LMP), but don't generate in real-time, are assessed imbalance charges in the real-time market at real-time market prices. Resources that do not receive energy schedules in the day-ahead market but generate in the real-time market are paid the real-time LMP.

Respondent: Daniel Politoski

Witness: Michael G. Wilding

OCA Data Request 5.4

Regarding congestion cost tracking and allocation within the EDAM:

- a. Please explain whether PacifiCorp has the technical capability to track the congestion charges paid by its native retail load separately for each state in which it operates.
- b. If such tracking capability exists, please describe in detail the methodology PacifiCorp will use to offset these costs with any congestion revenues received.

Response to OCA Data Request 5.4

- a. Congestion prices paid and received are tracked at the resource ID, Schedule Point ID and Load ID level. Load ID's are not geographically distinguished into different states by the CAISO. CAISO only tracks PacifiCorp's load ID's by PacifiCorp's Eastern and Western control areas. Therefore, PacifiCorp only has the ability to track congestion by its Eastern control area separate from the Western control area and not by state.
- b. Both the congestion charges incurred and the offsetting congestion revenues will be included in net power costs accounts. The net power cost accounts will be allocated out to states based on the approved allocation protocol in place at the time of allocation.

Respondent: Doug Young

Witness: Michael G. Wilding

OCA Data Request 5.5

Referring to Company's response to OCA Data Request 1.8 (c) and 4.1. Does the \$16 million in reduced wheeling revenues referenced include revenue losses from PowerEx's termination of 780 MW of wheeling rights?

Response to OCA Data Request 5.5

The responses in OCA Data Request 1.8 are for estimated impacts from the Energy Day Ahead Market (EDAM) and are tied to various studies and analysis. These studies are general and do not include impacts to transmission revenues from decisions made by individual customers. In this case, the impacts of Powerex contract terminations are independent from the EDAM studies and therefore, were not anticipated as part the EDAM analysis. In addition, the EDAM analysis conducted also likely did not consider transmission rate impacts.

Respondent: Ernie Knudsen

Witness: To Be Determined

OCA Data Request 5.6

Referring to Company's response to OCA Data Request 1.8 (e):

- a. Please explain the differences between Transmission Revenue Recovery (TRR) and the EDAM Access Charge, including the specific function of each mechanism.
- b. Please explain why TRR settlements for the EDAM footprint are zero.
- c. Please confirm or correct the following understanding: If the sum of wheeling revenue decreases across EDAM participants exceeds the sum of wheeling revenue increases, then the TRR mechanisms will not fully reimburse all participants for their lost wheeling revenues.

Response to OCA Data Request 5.6

Information regarding the Extended Day-Ahead Market (EDAM) tariff changes and stakeholder affairs can be found on their stakeholder initiative page¹.

- a. "Transmission Revenue Recovery" and "EDAM Access Charge" are synonymous terms. Please see section 33.26 of the California Independent System Operator's (CAISO) tariff² filed with the Federal Energy Regulatory Commission for more information on how transmission revenue shortfalls are covered by the EDAM Access Charge in the EDAM. When Brattle was performing PacifiCorp's EDAM study, TRR was the commonly used terminology for the EDAM mechanism for recovering lost transmission revenues, and so the terminology was used in the study. The mechanism for recovering lost transmission revenues is the same in the current EDAM design, it is just now known as the EDAM Access Charge.
- b. In the Brattle study referenced in the response to OCA Data Request 1.8(e), Brattle assumes that EDAM balancing areas are held harmless for a loss in transmission revenues due to decreased sales. In the Brattle EDAM study, balancing areas are held harmless by payments from other EDAM balancing areas.
- c. Due to the changes in the CAISO design, the aforementioned understanding is no longer valid and is obsolete. The statement from PacifiCorp's response in OCA Data Request 1.8(e) "In the study, EDAM BAs that experience a reduction in wheeling revenues from the BAU case to the EDAM case receive a settlement amount. The settlement amount is paid for by EDAM BAs that experience an increase in wheeling revenues" is not reflective of the current EDAM design.

Respondent: Nadia Kranz, Vijay Singh

Witness: Michael G. Wilding

¹ See <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Extended-day-ahead-market>

² See "Att_A-2-All-May20202-Clean.pdf" at https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20230822-5161&optimized=false&sid=cec0ffc3-69c6-48a6-b3e6-a35eddc986fb

OCA Data Request 5.7

Referring to Company's response to OCA Data Request 1.10 (d). Please describe the process in which the Company can withhold reserve capacity from the markets.

Response to OCA Data Request 5.7

In the Western Energy Imbalance Market (WEIM), reserve capacity can be withheld from the market by entering the reserve capacity into the California Independent System Operator's (CAISO) Base Schedule Aggregation Portal (BSAP). In BSAP, market participants will identify the resource and the hours the capacity is needed to be withheld, the WEIM will not economically dispatch the specified capacity.

The same mechanism exists for the Extended Day-Ahead Market (EDAM) although using a different tool to communicate the reserve capacity withholding needs to the market operator. Reserve capacity is withheld from the market by entering the reserve capacity into the CAISO's System Interface Business Rules (SIBR) application. The capacity is communicated on an hourly basis for the desired day. Once entered, EDAM will not economically dispatch the specified capacity.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

OCA Data Request 5.8

Referring to Company's response to OCA Data Request 1.12:

- a. Please provide the specific methodology and criteria PacifiCorp will use to determine the confidence factor and reliability margin parameters.
- b. Does PacifiCorp intend to utilize the EDAM net export constraint? If so, under what specific circumstances and with what frequency?

Response to OCA Data Request 5.8

- a. At the time of this request, PacifiCorp is still having ongoing discussions with the California Independent System Operator (CAISO) through its implementation workstreams to determine how the Company will define its use of the Net Export Transfer Constraint's (NETC) confidence factor and reliability margin.
- b. The NETC is a tool the EDAM Entity can utilize for preserving system reliability in real-time to aid the PacifiCorp Balancing Authority Areas in complying with the standards governed by the Federal Energy Regulatory Commission (FERC). PacifiCorp intends to employ the NETC when current, or potential system stress is identified. Instances when the Company would apply the NETC include circumstances when operations recognize credible threats to physical assets in the day-ahead time horizon, as the Company has previously experienced with wildfire season and winter storms. Based on the current information available, the Company expects to use the NETC infrequently and limited to the conditions stated within this response.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

OCA Data Request 5.9

Referring to Company's response to OCA Data Request 2.1 (d). Please provide the specific formulae used to calculate each of the four bid types described in this response.

Response to OCA Data Request 5.9

Specific formulae used to calculate Energy, Imbalance Reserve, or RUC Availability Bids in the Extended Day-Ahead Market (EDAM) has not been finalized as the Company is currently still in its implementation phase of EDAM. PacifiCorp expects to develop and refine these calculations as experience is gained through the EDAM parallel operations prior to market go-live.

As described in Section 4 of the PacifiCorp revised Open Access Transmission Tariff,¹ the EDAM will not co-optimize or procure Ancillary Services, therefore, this bid type only applies to resources inside the CAISO BAA, therefore, PacifiCorp does not intend or expect to develop a formula to calculate this bid type.

Respondent: Daniel Politoski

Witness: Michael Wilding

¹ See https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20250116-5113&optimized=false&sid=adfa5d64-debd-411e-a9a1-a8f9d1f9cb6b

OCA Data Request 5.10

Please explain if self-schedules are subject to the LMPs determined by the EDAM? If so, please explain how congestion impacts self-scheduled resources.

Response to OCA Data Request 5.10

Yes, self-scheduled resources are paid their LMP, which is a result of market optimization. Whether a resource self-schedules or submits an economic bid in EDAM, it is paid the same LMP. Congestion is a component of the LMP applied in energy settlements, known as the marginal cost of congestion (MCC). The MCC can be positive or negative due to congestion within the EDAM footprint. Self-scheduled resources are dispatched by the market optimization to the amount offered into the market, regardless of the LMP. Therefore, self-scheduled resources will be paid a price that includes impacts from congestion within the EDAM.

Respondent: Vijay Singh

Witness: Michael G. Wilding

OCA Data Request 5.11

Please explain the process, if available, through which PacifiCorp would indicate its intention in the EDAM to serve its retail load with its own generation resources.

Response to OCA Data Request 5.11

PacifiCorp can serve its retail load with its own generation resources through the process of self-scheduling generation. However, PacifiCorp believes this would lead to inefficient outcomes for customers by preventing the market from utilizing the lowest cost resources to serve PacifiCorp load. EDAM will serve PacifiCorp load with a combination of lowest cost resources either internal or external to the PacifiCorp Balancing Authority Areas (BAA), as is the case in the Western Energy Imbalance Market (WEIM) today. Automated dispatch of lowest cost resources to serve BAA load is a central feature of organized markets and has been a significant source of benefits for PacifiCorp customers in WEIM. Please refer to Michael Wilding's testimony page 4, line 7 through page 5, line 13 in addition to page 6, line 5 through line 16.

Respondent: Daniel Politoski

Witness: Michael G. Wilding

20000-675-EA-24 / Rocky Mountain Power

May 20, 2025

OCA Data Request 5.12

OCA Data Request 5.12

Referring to Company's response to OCA Data Request 3.4 (a):

- a. Please provide, even as an estimate, the extent to which either PACE or PACW relies on resources located outside its own BAA for resource sufficiency (in MW and as a percentage of total resource sufficiency requirements).
- b. If the Company maintains that this information is not readily available, please explain:
 - i. What specific data collection or analysis would be required to produce this information.
 - ii. Why the Company has not analyzed this information.
 - iii. When the Company expects to have this information available.

Response to OCA Data Request 5.12

- a. PacifiCorp's geographically diverse transmission system allows for the optimization of energy transfers between PACE and PACW. This allows PacifiCorp to optimize resource sufficiency between BAAs. The Company may conduct long-term and/or short-term bilateral transactions for purposes of ensuring resource sufficiency and for economics. As an industry, it is common practice for wholesale energy transactions to occur on a day-ahead and real-time basis. [REDACTED]

- b. Please refer to subpart a. above.

Confidential information is provided subject to Chapter 2, Section 30 of the Wyoming Public Service Commission's rules, Wyo. Stat. §16-4-203(a), (b), (d), or (g), and to the protective order that was issued in this proceeding. Confidential information will be made available to non-governmental parties who execute a non-disclosure agreement (NDA).

Respondent: Daniel Politoski

Witness: Michael G. Wilding

OCA Data Request 5.13

Regarding cross-BAA resource sharing:

- a. Please confirm whether individual PacifiCorp BAAs can hold reserves on assets located in the neighboring PacifiCorp BAA for meeting resource sufficiency in EDAM.
- b. Please confirm whether the individual PacifiCorp BAAs can hold reserves on assets located in the neighboring PacifiCorp BAA for meeting reserve requirements determined by any other agency.

Response to OCA Data Request 5.13

- a. PacifiCorp assumes that by “reserves” the question 5.13(b) is referring to ancillary service requirements including contingency reserves and regulating reserves. With this assumption, PacifiCorp answers as follows:

Yes, PacifiCorp utilizes a dynamic transfer from the PacifiCorp East (PACE) Balancing Authority Area (BAA) to the PacifiCorp West (PACW) BAA. This dynamic transfer allows PacifiCorp to regulate across both BAAs unidirectionally as if it were a single BAA. This transfer is beneficial as it allows the PACW BAA to fulfill a portion of the Ancillary Services requirement of the EDAM resource sufficiency evaluation by holding additional reserves in PACE. This allows reserves to be optimized over a wider footprint and ultimately results in a more economic dispatch of the entire PacifiCorp generation fleet.

- b. Yes. PacifiCorp can utilize the same transfer mentioned above to satisfy a portion of the PACW contingency reserve requirement imposed by the Northwest Power Pool’s Reserve Sharing Program.¹

Respondent: Daniel Politoski

Witness: Michael Wilding

¹ <https://www.westernpowerpool.org/about/programs/reserve-sharing-program>

OCA Data Request 6.1

Referring to Company's response to WIEC Data Request 1.6. If the CAISO makes changes to its EDAM tariff as a result of this stakeholder process, please explain if PacifiCorp will be required to amend its proposed OATT revisions currently pending in FERC Docket No. ER25-951-000.

Response to OCA Data Request 6.1

Based on the CAISO's most recent Revised Draft Final Proposal¹ on the EDAM congestion revenue allocation design, CAISO tariff changes to effectuate the design would not require PacifiCorp to amend its proposed OATT in FERC Docket No. ER25-951-000.

Respondent: Vijay Singh

Witness: Michael G. Wilding

¹ See <https://stakeholdercenter.caiso.com/InitiativeDocuments/Revised%20Draft%20Final%20Proposal%20-%20EDAM%20Congestion%20Revenue%20Allocation%20-%20May%2019%202025.pdf>

OCA Data Request 6.3

Referring to FERC Docket No. ER25-951-000, Attachment B – Clean Tariff, Attachment T, Section 4.3.1.4, please explain:

- a. If an LSE fails to meet its LSE RSE obligations as determined by the PacifiCorp EDAM Entity, is PacifiCorp obligated to use its own resources to ensure the Balancing Authority Areas (“BAAs”) meet the EDAM RSE requirements?
- b. If yes, please explain:
 - i. The specific mechanism by which PacifiCorp will utilize its own resources to cover such shortfalls.
 - ii. How PacifiCorp will recover the costs associated with providing backup resources.
- c. If no, please explain:
 - i. Any consequences for the PacifiCorp BAAs if the collective LSE RSE failures result in the BAAs failing the EDAM RSE.
 - ii. Any mechanisms that will allow PacifiCorp to continue to participate in the EDAM if the LSEs fail to meet their RSE requirements.

Response to OCA Data Request 6.3

- a. No, PacifiCorp is not obligated to use its own resources to ensure the Balancing Authority Areas meet the EDAM RSE requirements. However, the PacifiCorp EDAM entity retains the authority to instruct the designated scheduling coordinator—PacifiCorp Energy Supply Management (ESM)—to procure additional resources for curing any shortfalls. By doing so, PacifiCorp can maintain system reliability and ensure its participation in the EDAM. However, it is possible that ESM may not be able to cure the deficiency and the BAA would fail the EDAM RSE. As such, PacifiCorp responds to parts b) and c) as follows:
- b.
 - i. When the BAA fails its EDAM RSE, the PacifiCorp EDAM Entity (Entity) will direct ESM to procure additional resources in the most economical way available. This may include economically bidding or self-scheduling additional generation or purchasing energy through a short-term bilateral transaction.
 - ii. When an LSE fails the LSE RSE, they pay an insufficiency surcharge (see section 4.3.1.4.1 of Attachment T).¹ The surcharge is distributed on a pro-rata basis among the scheduling coordinators for the LSEs in the PacifiCorp BAA that satisfied all components of the LSE RSE for that period (see section 10.3.4.1.3 of Attachment T).²
In the scenario outlined where ESM takes action to provide backup resources, the intent of the design is that the costs are offset by the revenue

¹ https://elibrary.ferc.gov/elibrary/filelist?accession_number=20250116-5113&optimized=false&sid=610c2897-b3ab-4183-95e4-c4284010fdd3

² https://elibrary.ferc.gov/elibrary/filelist?accession_number=20250116-5113&optimized=false&sid=610c2897-b3ab-4183-95e4-c4284010fdd3

ESM will receive from the LSE insufficiency surcharge allocation. There also may not be any cost associated with providing surplus capacity if surplus economic generator bids are sufficient to cover the shortfall. PacifiCorp plans to monitor performance of the LSE RSE including the insufficiency surcharge allocation and adjust design as needed in the future.

- c.
 - i. If the EDAM BAA fails the EDAM RSE, the BAA will be subject to an EDAM RSE Insufficiency Surcharge, per section 33.31.1.5 of the Market Operator Tariff.³
 - ii. If the EDAM BAA fails the EDAM RSE, the Entity will be included in the market so long as the deficiency is able to be cured through CAISO's day-ahead market optimization engine. The entity is still subject to the RSE Insufficiency Surcharge regardless of whether the deficiency can be cured in the day-ahead market. This process is described in section 33.31.1.4.1 of the Market Operator Tariff.⁴

Respondent: Daniel Politoski

Witness: Michael Wilding

³ <https://stakeholdercenter.caiso.com/InitiativeDocuments/FERC-Approved-Tariff-Language-Extended-Day-Ahead-Market-and-Day-Ahead-Market-Enhancements.pdf>

⁴ <https://stakeholdercenter.caiso.com/InitiativeDocuments/FERC-Approved-Tariff-Language-Extended-Day-Ahead-Market-and-Day-Ahead-Market-Enhancements.pdf>

OCA Data Request 6.4

Please explain whether, under the EDAM, there are circumstances where the cost of serving PacifiCorp's Wyoming retail load with PacifiCorp's own generation resources could be higher than under the current approach without EDAM participation.

- a. If such circumstances exist, please:
 - i. Identify and describe each circumstance that could cause these higher costs.
 - ii. Explain the specific EDAM market mechanisms or settlement components related to these circumstances.
 - iii. Provide PacifiCorp's estimate of the frequency and potential magnitude of such higher-cost periods. Please include any worksheets related to calculating this estimate with intact formulae.
- b. If PacifiCorp believes no such circumstances exist, please explain in detail and provide the relevant EDAM mechanisms that prevent EDAM participation from ever resulting in higher costs for serving Wyoming retail load with PacifiCorp's own generation than under the current non-EDAM approach.

Response to OCA Data Request 6.4

PacifiCorp does not believe there are circumstances where the EDAM would cause the cost of serving PacifiCorp retail load to be higher than under PacifiCorp's current approach for meeting load needs in the day-ahead timeframe. Instead, PacifiCorp expects its net power costs to be lower in the EDAM compared to current practices. The EDAM will optimally schedule resources from across the EDAM footprint to meet load at the lowest cost. For PacifiCorp, net power costs are lowered when PacifiCorp imports electricity from the EDAM and when PacifiCorp exports electricity to the EDAM. When PacifiCorp imports electricity, the electricity coming into PacifiCorp displaces internal generation that is more expensive to run. It is more economic for PacifiCorp to buy the electricity from the EDAM than to generate, thereby lowering costs. On the flip side, when PacifiCorp exports electricity into the EDAM, PacifiCorp is paid, equal to or above its generating costs, to generate more than what is needed to meet internal load. The Company generates profit that it may not have been able to if it was only generating to meet its own load. The increase in gross profits to PacifiCorp decreases the net power costs PacifiCorp incurs to meet load. Since the Western Energy Imbalance Market (WEIM) uses similar mechanisms as the EDAM to meet load at the lowest cost, PacifiCorp has experienced how electricity markets decrease net power costs for participants to meet their load. To date, the California Independent System Operator estimates the PacifiCorp balancing areas have experienced almost \$1 billion in benefits for customers from the WEIM. The WEIM's ability to lower PacifiCorp's cost of meeting its load, compared to meeting load without a market, is one of the main reasons PacifiCorp decided to join the EDAM.

Respondent: Vijay Singh

Witness: Michael G. Wilding

OCA Attachment B

RMP's Responses to WIEC Data Requests

May 6, 2025

WIEC Data Request 1.1

WIEC Data Request 1.1

Please provide all confidential versions of RMP's Application, Testimony, and Exhibits in this docket. This is an ongoing request.

Response to WIEC Data Request 1.1

Rocky Mountain Power's Application, Testimony, and Exhibits do not contain any confidential information.

Respondent: Not Applicable

Witness: Not Applicable

May 6, 2025

WIEC Data Request 1.2

WIEC Data Request 1.2

Please provide a copy of all responses to existing data requests submitted to RMP in this proceeding by any and all other parties, including the Wyoming Public Service Commission or its Staff. This is an ongoing request.

Response to WIEC Data Request 1.2

Please refer to Attachment WIEC 1.2-1 and Confidential Attachment WIEC 1.2-2.

Going forward, the Wyoming Industrial Energy Consumers (WIEC) will be provided copies of the Company's responses to outgoing data responses in this proceeding.

Confidential information is provided subject to Chapter 2, Section 30 of the Wyoming Public Service Commission's rules, Wyo. Stat. §16-4-203(a), (b), (d), or (g), and to the protective order that was issued in this proceeding. Confidential information will be made available to non-governmental parties who execute a non-disclosure agreement (NDA).

Respondent: Not Applicable

Witness: Not Applicable

May 6, 2025

WIEC Data Request 1.3

WIEC Data Request 1.3

Please provide copies of all work papers which are used to develop or which support RMP's Application, Testimony, and Exhibits in this docket in native format with all cells and formulae intact. To the extent that such workpapers exist in paper form only, please provide paper copies to the undersigned. This is an ongoing request.

Response to WIEC Data Request 1.3

There are no additional work papers that are responsive to this request beyond what was included in Rocky Mountain Power's Application, Testimony and Exhibits.

Respondent: Not Applicable

Witness: Not Applicable

May 6, 2025

WIEC Data Request 1.4

WIEC Data Request 1.4

Refer to RMP's Amended Application in this proceeding at pages 8-9. Is it an accurate interpretation of RMP's Amended Application that RMP is not asking the Commission for authorization to join the EDAM? Please explain your answer in detail.

Response to WIEC Data Request 1.4

Rocky Mountain Power objects to this data request as vague, overly broad, and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving any objection, the Company responds as follows:

Rocky Mountain Power has requested that the Commission make a determination that EDAM participation will benefit customers and is in the public interest.

Respondent: Counsel

Witness: To Be Determined

May 6, 2025

WIEC Data Request 1.5

WIEC Data Request 1.5

In light of the Federal Energy Regulatory Commission's finding that PacifiCorp's proposed revisions to its Open Access Transmission Tariff to implement PacifiCorp's participation in the EDAM was deficient (*see* March 27, 2025 Deficiency Letter in Docket No. ER25-951-000), is the expected timing for EDAM participation discussed on pages 10-11 of Michael G. Wilding's direct testimony still accurate? If not, please provide an updated set of milestones and go-live date for PacifiCorp's participation in the EDAM.

Response to WIEC Data Request 1.5

Yes. PacifiCorp's participation in the extended day-ahead market (EDAM) is still on target for the May 1, 2026 go-live date.

Respondent: Vijay Singh

Witness: Michael G. Wilding

May 6, 2025

WIEC Data Request 1.6

WIEC Data Request 1.6

Is PacifiCorp aware of any potential modifications to the EDAM design in response to issues raised through the protests in Docket No. ER25-951-000? Please explain your answer in detail.

Response to WIEC Data Request 1.6

Yes, the California Independent System Operator (CAISO) is currently conducting a stakeholder process to enhance the congestion revenue allocation design of the extended day-ahead market (EDAM).¹ The CAISO launched the initiative as a response to concerns raised in Federal Energy Regulatory Commission (FERC) Docket No. ER25-951-000 that contended that EDAM Entities would not receive sufficient congestion revenue from the CAISO to give long-term transmission rights holders a financial hedge against price differences between their generation resources and load. The CAISO held two workshops and published an issue paper and a recently proposed a design in a Draft Final Proposal.²

Respondent: Vijay Singh

Witness: Michael G. Wilding

¹See [California ISO - Extended day-ahead market](#)

² See <https://stakeholdercenter.caiso.com/InitiativeDocuments/Draft-Final-Proposal-EDAM-Congestion-Revenue-Allocation-April-16-2025.pdf>

May 6, 2025

WIEC Data Request 1.7

WIEC Data Request 1.7

Please identify the (1) total amount of third-party transmission service agreements for service on PacifiCorp's transmission system, in MW, that have been cancelled as a result of PacifiCorp's plan to join the EDAM, and (2) the actual and expected revenue under those agreements in 2024, 2025, 2026, and 2027.

Response to WIEC Data Request 1.7

More than a year prior to PacifiCorp's extended day-ahead market (EDAM) participation, PowerEx informed PacifiCorp that it intended to cancel 780 megawatts (MW) of long-term (LT) point-to-point (PTP) transmission rights effective March 31, 2025, ostensibly due to PacifiCorp's stated intention to join the EDAM.

Respondent: Robert Eckenrod

Witness: To Be Determined

May 6, 2025

WIEC Data Request 1.8

WIEC Data Request 1.8

Refer to Michael G. Wilding's direct testimony at page 10, lines 8-10. Is it PacifiCorp's position that an alternative energy imbalance market would not provide customer benefits? Please explain your answer in detail.

Response to WIEC Data Request 1.8

No. It is not PacifiCorp's position that an alternative energy imbalance market (EIM) would not provide customer benefits. Compared to a baseline of no EIM, an alternative market would likely provide customer benefits. However, PacifiCorp believes that an alternative EIM would provide lower benefits to PacifiCorp customers than the Western EIM if that alternative EIM included less load and resource diversity and fewer intertie points with the PacifiCorp system than the WEIM.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

WIEC Data Request 1.9

Refer to Michael G. Wilding's direct testimony at page 6, line 17 through page 7, line 3.

- (a) Please identify the individual(s) at PacifiCorp with final authority regarding PacifiCorp's decision to join the EDAM.
- (b) Please produce all materials provided to the individual(s) identified in response to subpart (a) to inform the decision regarding PacifiCorp joining the EDAM.

Response to WIEC Data Request 1.9

- (a) Chief executive officer (CEO) and chair Cindy Crane had final authority regarding PacifiCorp's decision to join the extended day-ahead market (EDAM).
- (b) The Brattle Group's (Brattle) EDAM participation benefits studies and reports were used to inform the Company's decision to join the EDAM and are provided with the direct testimony of Company witness, Michael G. Wilding, specifically Exhibit 2.1 (April 2023 PacifiCorp EDAM Simulation), Exhibit 2.2 (December 2023 PacifiCorp EDAM Participants Benefits Study) and Exhibit 2.3 (September 2024 PacifiCorp EDAM Simulation Using 2024 Updated IRP). In addition, please refer to Brattle's comparative assessment¹ of the EDAM and Markets+ design.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

¹ See <https://www.brattle.com/insights-events/publications/brattle-experts-assess-the-proposed-day-ahead-markets-in-the-wecc-in-a-new-white-paper/>

May 6, 2025

WIEC Data Request 1.10

WIEC Data Request 1.10

Refer to Michael G. Wilding's direct testimony at page 6, line 22 through page 7, line 3. Please provide all analyses prepared by or for PacifiCorp demonstrating that EDAM is the best option for an inclusive market in the West.

Response to WIEC Data Request 1.10

Please refer to the direct testimony of Company witness, Michael G. Wilding, specifically Exhibit 2.2 (December 2023 PacifiCorp EDAM Participants Benefits Study) and Exhibit 2.3 (September 2024 PacifiCorp EDAM Simulation Using 2024 Updated IRP) which detail the customer benefits received from an expanded extended day-ahead market (EDAM) footprint.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

WIEC Data Request 1.11

Refer to Michael G. Wilding's direct testimony at page 9, line 19 through page 10, line 10.

- (a) Please provide all analyses prepared by or for PacifiCorp comparing the governance structure of the EDAM to the governance structure of Markets+.
- (b) Does PacifiCorp have any concerns regarding the CAISO's dual role in the EDAM as both market operator and market participant? Please explain your answer in detail.
- (c) Please provide all analyses prepared by or for PacifiCorp comparing the resource adequacy/resource sufficiency requirements of the EDAM to the resource adequacy/resource sufficiency requirements of Markets+.
- (d) Please provide all analyses prepared by or for PacifiCorp comparing the market design of the EDAM to the market design of Markets+ as it relates to market power mitigation, scarcity pricing, fast-start pricing, and virtual bidding.
- (e) Please provide all analyses prepared by or for PacifiCorp comparing the market design of the EDAM to the market design of Markets+ as it relates to the allocation of congestion revenues.

Response to WIEC Data Request 1.11

- (a) While not prepared by or for PacifiCorp, please refer to Portland General Electric's (PGE) comparison of the extended day-ahead market (EDAM) and Markets+. ¹
- (b) No. PacifiCorp does not have concerns with the California Independent System Operator's (CAISO) role as a market operator and balancing area (BA). The CAISO does not participate in the CAISO markets as a market participant. Since PacifiCorp began participating in the Western energy imbalance market (WEIM) in 2014, the Company has not experienced situations where the CAISO's role as a market operator was adversely impacted because of reliability decisions made for the CAISO BA. Despite having no concerns, PacifiCorp has been supportive of the Pathways initiative which sought to resolve concerns from other stakeholders. Step one of the Pathways initiatives is set to go in effect once "execution of implementation agreements by utilities representing non-CAISO BAA load equal to or greater 70% of the CAISO BAA load". ²
- (c) PacifiCorp did not prepare or receive analysis comparing the resource adequacy/resource sufficiency requirements of the EDAM to that of Markets+. Markets+ utilizes the Western Resource Adequacy Program (WRAP) for its resource adequacy requirements of which the Company is a member.

¹https://www.oasis.oati.com/woa/docs/PGE/PGEdocs/PGE_EDAM_and_Marketsplus_comparative_study_2024.pdf

² [Phase 1 Straw Proposal_Final Draft 05_21_24 v2.docx](#)

May 6, 2025

WIEC Data Request 1.11

(d) Please refer to the Brattle Group's comparative assessment³ performed for PacifiCorp of the EDAM and Markets+ design features. Also, refer to PGE's analysis referenced in the Company's response to subpart (a) above.

(e) Please refer to the Company's response to subpart (d) above.

Respondent: Vijay Singh

Witness: Michael G. Wilding

³ <https://www.brattle.com/insights-events/publications/brattle-experts-assess-the-proposed-day-ahead-markets-in-the-wecc-in-a-new-white-paper/>

May 6, 2025

WIEC Data Request 1.12

WIEC Data Request 1.12

Refer to the November 16, 2020 letter from the “EIM Entities,” including PacifiCorp, to Chair Galiteva and Chair Prescott raising concerns “relating to reliability for some aspects of market design,” and seeking to “assess whether the RS test worked as designed,” available here:

https://www.caiso.com/documents/letterfromeimentitiesreedam-nov17_2020.pdf.

- (a) Was such an assessment conducted by CAISO or any other EIM Entities?
- (b) If the response to subpart (a) is yes, please provide all materials in the Company’s possession relating to such an assessment.

Response to WIEC Data Request 1.12

The California Independent System Operator’s (CAISO) Department of Market Monitoring, who serves as an independent market monitor for the CAISO, published a report on system and market conditions, issues and performance¹ on the August 2020 and September 2020 heat events referred in the November 16, 2020, letter from the “EIM Entities.” In June 2021, the CAISO created a stakeholder initiative called the Western Energy Imbalance Market (WEIM) Resource Sufficiency Evaluation (RSE) Enhancements which led to modifications in the RSE design.² The modified design elements were integrated into the extended day-ahead market (EDAM) policy effort and assessed by stakeholders, ensuring the development of a robust EDAM RSE design.

Respondent: Nadia Kranz

Witness: Michael G. Wilding

¹ [California ISO - WEIM resource sufficiency evaluation enhancements](#)

² [California ISO - WEIM resource sufficiency evaluation enhancements](#)

WIEC Data Request 2.1

Regarding witness Wilding's direct testimony, page 6, lines 1-4:

- a) Does RMP intend to economically bid all of its generation and supply side resources into the EDAM?
- b) If your response to subpart (a) is yes, please describe in detail how often the Company will economically bid its generation and supply side resources into the EDAM (e.g., daily, real-time).
- c) If RMP does not intend to economically bid all of its generation and supply side resources into the EDAM, please explain all reasons why resource(s) would be partially or fully self-scheduled and how often this is expected to occur.

Response to WIEC Data Request 2.1

- a) No. PacifiCorp expects that not all generation resources will be economically bid into the EDAM. Some resources will only be able to participate in the EDAM via self-schedule, as is the case in the Western Energy Imbalance Market (WEIM) today.
- b) Not applicable.
- c) There are several reasons why PacifiCorp would need to self-schedule a resource into EDAM rather than economically bid including:
 - Contractual reasons: Wind and solar resources may have contractual terms that do not permit economic curtailment of generation.
 - Lack of dispatchability: A resource may not have the physical capability to adjust output to follow a market dispatch instruction.
 - Reliability considerations: A resource may need to run for reliability reasons.
 - Fuel restrictions: A resource may need a partial self-schedule due to contractual obligations or natural gas pipeline operational flow orders.

Respondent: Daniel Politoski

Witness: Michael Wilding

WIEC Data Request 2.2

Referring to RMP's response to OCA Data Request 1.4 (c), if there is no minimum quantity of a generating resource that a balancing authority area ("BAA") must bid into the EDAM, other than the quantity necessary to meet the BAA's EDAM Resource Sufficiency Evaluation requirements, please list all expected situations where a RMP generating resource would withhold its capacity from the EDAM and not submit an economic or self-scheduled bid into the EDAM.

Response to WIEC Data Request 2.2

Situations where PacifiCorp may have to withhold capacity from the Extended Day-Ahead Market (EDAM) could be related to the physical limitations of a resource such that a resource could not generate in an operating range. This situation is inclusive of fuel availability and/or operational constraints at the plant. Outside of physical constraints, PacifiCorp intends to maximize capacity bid into EDAM, as the Company does today in the Western Energy Imbalance Market (WEIM).

Respondent: Daniel Politoski

Witness: To Be Determined

WIEC Data Request 2.3

Regarding RMP's Amended Application, page 8, paragraph b:

- (a) Please explain how, and at what price ranges, does RMP plan to bid its retail and wholesale loads into the EDAM?
- (b) For non-interruptible loads, will RMP retail and wholesale loads pay the balancing authority area's (BAA) load-weighted energy price of the EDAM? If no, please describe in detail how the cost of serving RMP's non-interruptible retail and wholesale loads will be determined.
- (c) Will non-RMP loads within RMP's BAAs be removed from the EDAM? If no, how will such non-RMP loads be bid and charged within the EDAM settlement structure?
- (d) Given that a larger amount of RMP load will be subject to EDAM Locational Marginal Pricing than under the Energy Imbalance Market, how does RMP plan to mitigate congestion pricing charges assigned to its loads within a BAA?
- (e) Will all EDAM Congestion Revenues from the California Independent System Operator (CAISO) settlement to a specific RMP BAA be allocated back to the cost to serve the RMP load within that BAA? If not, please explain why not and how and to whom EDAM Congestion Revenues will be allocated.
- (f) What happens if the EDAM Congestion Revenues from the CAISO settlement do not offset the congestion charges assigned to the RMP loads within a BAA? Please explain in detail.
- (g) Please explain how EDAM Transfer Revenues from the CAISO settlement, which are allocated to entities that have transmission rights between BAAs, once allocated to PacifiCorp, will be suballocated to RMP loads within BAAs? If these EDAM Transfer Revenues will not be fully allocated to RMP loads, then please explain why not and how EDAM Transfer Revenues will be allocated.
- (h) Please explain how EDAM Congestion Revenues and/or Transfer Revenues from CAISO settlements will be allocated to transmission customers of PacifiCorp's Open Access Transmission Tariff.
- (i) Regarding potential market penalties/surcharges assessed to RMP (e.g., as referenced in Data Responses OCA 3.3 (c) and 1-4 (d)), how will such costs be allocated and recovered by RMP?

Response to WIEC Data Request 2.3

- (a) PacifiCorp has not finalized its load bidding strategy for the Extended Day-Ahead Market (EDAM).
- (b) Yes, non-interruptible loads pay the same price as other loads in the EDAM.
- (c) No, other loads in the PacifiCorp East balancing area that are served by non-PacifiCorp load serving entities (LSEs) will be optimally served through the EDAM market optimization. All LSEs within the PacifiCorp balancing areas that act as their own scheduling coordinator have the ability to manage their own load bidding strategies thereby economically bidding or self-scheduling their load obligations. However, for LSEs for whom the PacifiCorp EDAM Entity is acting as the scheduling coordinator will only be able to have their load self-scheduled as it is not appropriate for the PacifiCorp EDAM Entity to provide bidding strategies on behalf of LSEs. Please see the PacifiCorp tariff¹ as filed with the Federal Energy Regulatory Commission, section 3.2.1, for more information.
- (d) Congestion pricing is a typical feature of organized markets. Exposure to congestion pricing differentials can be mitigated through balanced self-schedules. Non balanced self-schedules or economically bid load congestion exposure is mitigated through the sub-allocation of the congestion offset charge code. The overall exposure to congestion in the real-time market is mitigated through participating in the day-ahead market by securing transmission capacity at more predictable prices. Congestion pricing provides better visibility to constrained transmission pathways which allows for better decision making on future transmission upgrades. Future transmission upgrades can be used to mitigate high congestion differentials. Reviewing historic congestion trends can lead to better scheduling and bidding decisions to avoid congestion-heavy nodes.
- (e) All congestion accrued in the RMP BAA's that results from constraints that bind in the RMP BAA's will be allocated back to the RMP BAA's. Congestion accrued in the RMP BAA's that results from constraints that bind in the CAISO BAA will be allocated to the CAISO BAA. However, CAISO is currently working on an initiative that may result in some portion of the congestion that accrued in the RMP BAA's resulting from constraints binding the CAISO BAA being allocated back to the RMP BAA's.
- (f) All congestion accrued in the RMP BAA's that results from constraints that bind in the RMP BAA's will be allocated back to the RMP BAA's. Congestion is recorded in net power cost accounts and are included in the ECAM.
- (g) Day-ahead transfer revenues are allocated to transmission customers who contributed transmission rights that resulted in the transfer revenue with the remainder being allocated to load and exports. Therefore, the transmission revenues

¹ See https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20250116-5113&optimized=false&sid=adfa5d64-debd-411e-a9a1-a8f9d1f9cb6b

from day-ahead EDAM transfers can go to: (1) the transmission rights holder, (2) loads, or (3) exporters. All revenues allocated to PacifiCorp transmission rights, loads or exports will be included in net power cost accounts and flow through the ECAM.

- (h) Please see PacifiCorp's tariff revisions² filed with the Federal Energy Regulatory Commission for more information on how congestion revenues and transfer revenues are sub-allocated to PacifiCorp's customers.
- (i) The BAA level resource sufficiency evaluation penalties charged to PacifiCorp's balancing authority areas will be sub-allocated down to the individual load serving entities within PacifiCorp's BAA's through PacifiCorp performing a separate and distinct resource sufficiency evaluation for all load serving entities in its BAA's. PacifiCorp's BAA will be performing a resource sufficiency evaluation for load serving entities within its BAA as discussed in section 4.3.1 of PacifiCorp's attachment T to the EDAM revised tariff. Penalties related to third-party load serving entities will be allocated to those entities. Penalties related to PacifiCorp's load will be recorded in PacifiCorp's net power cost accounts and included in the ECAM.

Respondent: Vijay Singh, Doug Young

Witness: To Be Determined

² See https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20250116-5113&optimized=false&sid=adfa5d64-debd-411e-a9a1-a8f9d1f9cb6b

WIEC Data Request 2.4

Does RMP expect any new cost impacts for participating in the EDAM and its related obligations (e.g., Day-Ahead bidding, Imbalance Reserve, etc.)?

Response to WIEC Data Request 2.4

PacifiCorp expects the following cost impacts for participating in the Extended Day-Ahead Market (EDAM):

- In the EDAM, PacifiCorp will receive a higher grid management charge (GMC) from the California Independent System Operator CAISO than it currently does today in the Western Energy Imbalance Market (WEIM). See the CAISO tariff¹ for more information on how the GMC is determined.
- As detailed in the Brattle study, PacifiCorp expects cost savings from adjusted production costs, EDAM congestion revenues, EDAM transfer revenues, and wheeling revenues. The Company expects cost increases due to transmission revenue recovery settlements, loss of WEIM congestion revenues, loss in trading value at the CAISO day-ahead timelines, and a reduction in bilateral trading.
- PacifiCorp expects to receive payments and charges from the imbalance reserve product and reliability capacity product. As these products will be implemented at the start of EDAM, the Company cannot indicate whether the impacts will be increased charges or payments at the time of this request. The Brattle study did not reflect the cost impacts as specific revenue items, but instead the impacts are embedded within the adjusted production costs and transfer revenues.
- PacifiCorp will pay a surcharge for any failure of the EDAM resource sufficiency evaluation (RSE). Conversely, the Company will receive payments anytime PacifiCorp's resources are used to cure an RSE deficiency in another EDAM balancing area. See CAISO tariff section 33.31.1.5 for more information on the EDAM RSE failure surcharge penalty structure.
- If PacifiCorp cannot meet its day-ahead awarded schedule for imbalance reserves and reliability capacity, PacifiCorp will incur a charge. See CAISO tariff section 11.2.1.8 for more information.
- PacifiCorp will receive bid cost recovery payments when its resources are paid less than their operating costs. See CAISO tariff section 11.8.2.1 for more information.

Respondent: Vijay Singh

Witness: To Be Determined

¹ https://elibrary.ferc.gov/elibrary/filelist?accession_number=20230822-5161&optimized=false&sid=cec0ffc3-69c6-48a6-b3e6-a35eddc986fb

WIEC Data Request 2.5

Referring to witness Wilding's direct testimony, page 6, line 22 through page 7, line 3:

- (a) Please list, and chart if possible (such as figure 8.3 of PacifiCorp's 2025 IRP), each of the transmission connections and their Total Transfer Capability, between PacifiCorp's systems and neighboring entities, that are expected to be used by PacifiCorp within the EDAM to provide cost savings.
- (b) Please list, and chart if possible, each of the transmission connections and their Total Transfer Capability, between PacifiCorp's systems and neighboring entities, that would be expected to be used by PacifiCorp within the Markets+ option, if PacifiCorp were to join that market instead.
- (c) While witness Wilding's Exhibit 2.3 (Brattle EDAM Simulations for PacifiCorp) estimates the load and resource diversity savings for joining in the EDAM market, please provide all analysis regarding the potential differences in PacifiCorp's generation dispatch, and any other marketplace savings, if it were to join the Markets+ day-ahead and real-time markets instead of the EDAM.
- (d) If no analysis, as requested in (c) above, was done on estimating diversity benefits and or production cost savings regarding PacifiCorp potentially joining Markets+ please explain why not.

Response to WIEC Data Request 2.5

- (a) Please refer to Confidential Attachment WIEC 2.5 for PacifiCorp transmission connections and total transfer capability between the PacifiCorp systems and neighboring entities. Please note that this list represents a view of EDAM participation in 2032.
- (b) Please refer to Confidential Attachment WIEC 2.5 which includes transmission connections and total transfer capability between PacifiCorp and Markets+ participants who have indicated a leaning or announced to be Phase 2 Participants of Markets+. Please note that this list represents a view of EDAM participation in 2032.
- (c) Please refer to the Brattle Group's comparative assessment¹ performed for PacifiCorp that evaluated EDAM and Markets+ design features. PacifiCorp reviewed the EDAM benefits study conducted by Energy Strategies² for the California Independent System Operator, the analysis performed by Portland General Electric (PGE)³, and Western Markets Exploratory Group's (WMEG) Cost Benefit Study produced by Energy Environmental Economics (E3)⁴. Each study has concluded that EDAM will provide

¹<https://www.brattle.com/insights-events/publications/brattle-experts-assess-the-proposed-day-ahead-markets-in-the-wecc-in-a-new-white-paper/>

²<https://static1.squarespace.com/static/59b97b188fd4d2645224448b/t/64de69381a581b370f50e00f/1692297540615/Presentation-CAISO-Extended-Day-Ahead-Market-Benefits-Study.pdf>

³ https://www.oasis.oati.com/woa/docs/PGE/PGEdocs/PGE_EDAM_and_Marketsplus_comparative_study_2024.pdf

⁴ <https://www.bpa.gov/-/media/Aep/projects/day-ahead-market/e3-wmeg-benefits-study.pdf>

May 19, 2025

WIEC Data Request 2.5

greater economic benefits for customers, greater reliability, and reduced emissions. As such, EDAM is identified to be the best option for its customers.

(d) Please refer to subpart (c).

Confidential information is provided subject to Chapter 2, Section 30 of the Wyoming Public Service Commission's rules, Wyo. Stat. §16-4-203(a), (b), (d), or (g), and to the protective order that was issued in this proceeding. Confidential information will be made available to non-governmental parties who execute a non-disclosure agreement (NDA).

Respondent: Nadia Kranz, Lisa Harkins

Witness: Michael Wilding

WIEC Data Request 2.6

Regarding witness Wilding's direct testimony on page 8, line 20 through page 9, line 2:

- a. Please confirm or correct that the EDAM requires six months' notice and no fees to exit the marketplace?
- b. What is the notice period and expected fees for exiting the Markets+ market?
- c. Has RMP analyzed joining a regional transmission organization ("RTO") to possibly gain more efficiencies and cost savings than joining into a non-RTO day-ahead market? If so, please provide such analysis.

Response to WIEC Data Request 2.6

- (a) That is correct, EDAM does not charge exit fees and allows EDAM participants to exit the marketplace with a six-month notification to the market operator.¹
- (b) The Markets+ notice period² and expected fees for terminating its market participation are as follows and are subject to costs incurred by the market operator at date of termination.
 - Transmission service provider: 180 days
 - Market participant: 90 days
- (c) PacifiCorp has not done analysis to joining a Regional Transmission Organization (RTO). The Company views EDAM as an opportunity to provide tangible and timely benefits to PacifiCorp customers through the more efficient use of Company resources and transmission.

Respondent: Nadia Kranz

Witness: Michael Wilding

¹ See page 108, 115, and Article III of the DAME-EDAM Tariff Amendment filed with FERC on August 22, 2023, [caiso.com/Documents/Aug22-2023-DAME-EDAM-Tariff-Amendment-ER23-2686.pdf](https://www.ferc.gov/Document-Search/2023/08/22/2023-08-22-DAME-EDAM-Tariff-Amendment-ER23-2686.pdf)

² See page 576 (Transmission Service Provider), page 445 (Market Participant), https://www.spp.org/documents/73635/markets%20plus%20tariff_with%20compliance%20filing%20language_april%2018.pdf

WIEC Data Request 2.7

Referring to witness Wilding's direct testimony on page 9, line 16 through page 10, line 10:

- (a) Did Mr. Wilding specifically participate in the Markets+ design for its day-ahead and real-time markets? If not, did anyone else from PacifiCorp, and who, participate in such design efforts?
- (b) Given the topography of PacifiCorp service territory, why is it important to achieve synergies with the California market instead of the Southwest Power Pool market or extended western area of the Markets+ market that PacifiCorp is also adjacent to?
- (c) What are the expected costs for PacifiCorp to enter and participate in the EDAM?
- (d) What are the expected costs for PacifiCorp to enter and participate in the Markets+ market if PacifiCorp were to do such?

Response to WIEC Data Request 2.7

- (a) Yes, Mr. Wilding participated in several Markets+ design meetings both virtually and in-person at the onset of stakeholder discussions. PacifiCorp tracked the development of Markets+, but did not participate in designing the market.
- (b) PacifiCorp's service territory is adjacent to the CAISO at various points. Historically, the California Independent System Operator (CAISO) market has been a significant exporter and importer of energy in the Western Interconnection. The benefits of organized markets are realized through economic transfers of energy to serve customers at the lowest cost. Therefore, PacifiCorp believes that synergies with the California market, which has proven to be successful, will lead to the most benefit to PacifiCorp customers from economic transfers of energy.
- (c) Rocky Mountain Power objects to this request as overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving any objection, the Company responds as follows:

Because PacifiCorp is currently still 12 months away from go-live, a categorization of costs is provided below.

- CAISO Onboarding Fees: These are fees for CAISO onboarding support.
- Software Enhancement and Implementation Fees: These fees capture generally four categories of costs associated with a given vendor: vendor and license fees, technical market consultant fees, project management, IT/Cyber Security.

- Ongoing license and maintenance fees from vendors and internal IT/security resources to support market operations post-go live.
- Program Management: These costs include fees for consulting and internal staff focused on overall project planning, execution, and tracking.
- Generation Plant Meter Upgrades: These costs include engineering design, and metering and related in-field equipment procurement and installation to make 3 plants compliant with CAISO market metering requirements for them to be economically dispatched by the market.
- Additional staffing to support EDAM operations:
 - Grid Management Charge. Please refer to EDAM Grid Management charges in Confidential Attachment WIEC 2.7.

(d) PacifiCorp has not evaluated the costs of joining Markets+. For reference, please see Bonneville Power Administration's estimation of the costs to join Markets+ in their January 2025 stakeholder meeting¹.

Confidential information is provided subject to Chapter 2, Section 30 of the Wyoming Public Service Commission's rules, Wyo. Stat. §16-4-203(a), (b), (d), or (g), and to the protective order that was issued in this proceeding. Confidential information will be made available to non-governmental parties who execute a non-disclosure agreement (NDA).

Respondent: Vijay Singh, Nadia Kranz, Kerstin Rock

Witness: Michael Wilding

¹ See [Presentation for 20240603 DAM Customer Workshop](#)

WIEC Data Request 2.8

Referring to witness Wilding's direct testimony, page 7, line 13 through page 8, line 11, and Exhibit 2.3:

- (a) Was any PacifiCorp generation assumed to be self-scheduled within the analysis, and if so, for what reasons?
- (b) Regarding EDAM Congestion Revenues, please explain how they were modeled to be allocated back to the cost to serve RMP load within a balancing authority area (BAA).
- (c) Regarding EDAM Transfer Revenues, please explain how they were modeled to be allocated to RMP loads within the BAAs.
- (d) Please explain how EDAM Congestion Revenues and Transfer Revenues were modeled to be sub-allocated to transmission customers of PacifiCorp's Open Access Transmission Tariff.
- (e) While pages 16, 17, and 18 of Exhibit 2.3 provide a breakdown of the \$117M/year Adjusted Production Cost savings between the PACE, PACW, and PAWA BAAs, please provide a similar breakdown by these BAAs for the Congestion Revenue and Transfer Revenue Savings.
- (f) Please provide a breakdown of expected Brattle study Reduced Wheeling Revenues, TRR Settlements, Impact of EIM Congestion Revenues, Impact on CAISO DA Tieline Trading Value, and Reduced Bilateral Trading Value for the PACE BAA.
- (g) Regarding pages 8 through 12 of Exhibit 2.1, please explain how the Polaris Power System Optimizer model accounts for:
 - i. Imbalance Reserves
 - ii. Long-term reservations on the PacifiCorp OASIS system
 - iii. Short-term reservations on the PacifiCorp OASIS system
 - iv. Network service reservations on the PacifiCorp OASIS system
- (h) Regarding page 16 of Exhibit 2.1, are there circumstances where Bucket 1 or Bucket 2 type EDAM transmission transactions might not be considered "hurdle-free" within actual EDAM participation? If so, please explain what those circumstances might be and what type of impact that might have on the Brattle analysis results.

Response to WIEC Data Request 2.8

- (a) PacifiCorp assumes the question is asking whether the Brattle study included PacifiCorp resources that were only self-scheduled in the EDAM or Western Energy Imbalance Market (WEIM) and were not included in day-ahead block trades in the bilateral market. With that assumption the Company responds as follows:

The Brattle study did not self-schedule PacifiCorp resources in the EDAM or WEIM.

- (b) Exhibit 2.1, Page 26, explains how congestion revenues are allocated to the EDAM balancing areas in the Brattle study. The Brattle study did not make assumptions about what PacifiCorp would do with the congestion revenues with respect to the costs of serving RMP load.
- (c) Exhibit 2.1, Page 26, explains how transfer revenues are allocated to the EDAM balancing areas in the Brattle study. The Brattle study did not make assumptions about what PacifiCorp would do with the transfer revenues with respect to the costs of serving RMP load.
- (d) The Brattle study did not model PacifiCorp's proposed sub-allocation methodology.
- (e) Please refer to Confidential Attachment WIEC 2.8 which contains information from the Brattle study on congestion revenues and EDAM transfer revenues by partner but does not distinguish how the revenues accrue to PACE, PACW, and PAWA. PacifiCorp does not have the data that allocates congestion and transfer revenues among the different regions.
- (f) Please refer to Confidential Attachment WIEC 2.8 which contains information from the Brattle study on wheeling revenues, CAISO DA tieline trading value, and bilateral trading value but does not distinguish how the revenues accrue to PACE. PacifiCorp does not have data on TRR settlements or WEIM congestion from the Brattle study.
- (g) Imbalance reserves
 - The Polaris Power System Optimizer finds the least-cost generation to meet energy, imbalance reserve, and reserve requirements for each EDAM balancing area in the Brattle study. Exhibit 2.1, Pages 20 and 21, explains how each EDAM balancing area's imbalance reserve requirement is calculated and how Brattle's model optimizes resource commitments and dispatches to meet energy and imbalance reserve requirements.

Long-term reservations on the PacifiCorp OASIS system

- Information on long-term reservations is represented in the Brattle model based on information provided by PacifiCorp. The reservations are used to facilitate EDAM energy flows by the optimizer.

Short-term reservations on the PacifiCorp OASIS system

- The Brattle model does not use information about short-term reservations from PacifiCorp. Instead, the Brattle optimizer determines short-term reservations by optimally selling PacifiCorp transmission to trading partners, based on PacifiCorp's tariff rate, when the optimizer finds that it is economic for other parties in the WECC to purchase PacifiCorp's short-term transmission.

Network service reservations on the PacifiCorp OASIS system

May 19, 2025

WIEC Data Request 2.8

- Information on network service reservations is represented in the Brattle model based on information provided by PacifiCorp. The reservations are used by the optimizer to facilitate EDAM energy flows to meet native load.

(h) The EDAM does not charge a hurdle-rate for energy flows over transmission made available to the market, regardless of the “bucket” it comes from. Instead, EDAM scheduling coordinators pay the Open Access Transmission Tariff rate on transmission providers’ systems for the right to use the transmission in the EDAM. Therefore, Brattle’s description of how transmission is used in the EDAM study in Exhibit 2.1, Page 21, is representative of the EDAM design.

Confidential information is provided subject to Chapter 2, Section 30 of the Wyoming Public Service Commission’s rules, Wyo. Stat. §16-4-203(a), (b), (d), or (g), and to the protective order that was issued in this proceeding. Confidential information will be made available to non-governmental parties who execute a non-disclosure agreement (NDA).

Respondent: Vijay Singh

Witness: Michael Wilding

WIEC Data Request 2.9

Regarding witness Wilding's direct testimony, page 6, lines 18-19:

- (a) Please detail how PacifiCorp plans to allocate these savings to Wyoming retail loads?
- (b) Please detail how PacifiCorp plans to allocate these savings to wholesale loads.
- (c) Please detail how RMP could calculate and provide routine reports on expected versus actual savings of participation in the EDAM and EIM to the Commission.
- (d) Please detail how the actual savings, or costs (should the savings turn negative), would be recovered by RMP.

Response to WIEC Data Request 2.9

- (a) The Company will allocate extended day-ahead market (EDAM) benefits through the then-prevailing cost allocation methodology.
- (b) The Company assumes that "wholesale loads" is intended to be a reference to the recipients of wholesale market sales. Based on the foregoing assumption, the Company responds as follows:

EDAM benefits are not allocated to the recipients of wholesale market sales.

- (c) PacifiCorp does not currently have a process for reporting a comparison of actual EIM/EDAM benefits with forecasted EIM/EDAM benefits to state commissions in the states PacifiCorp operates in. PacifiCorp can provide data accessible to the Company through data requests.
- (d) The Company will include forecasted EDAM benefits in base net power costs (NPC). The variance between base NPC and actual NPC will then be trued up through the energy cost adjustment mechanism (ECAM).

Respondent: Isaiah Zacharia / Vijay Singh

Witness: To Be Determined

WIEC Data Request 2.10

Will long-term and short-term reservation holders under PacifiCorp's Open Access Transmission Tariff have to "donate" their transmission for use in the EDAM if they do not schedule a transaction across such reservation prior to the EDAM market close of bids?

Response to WIEC Data Request 2.10

Long-term and short-term reservation holders under PacifiCorp's Open Access Transmission Tariff (OATT) do not have to "donate" their transmission for use in the extended day-ahead market (EDAM) if they do not schedule that reservation prior to the EDAM market close (emphasis added). The capacity from any firm transmission reservations that are unscheduled at the EDAM market close will be made available to the market on an as-available basis for EDAM optimized transfers, such that the reservation holders can still schedule their rights after the EDAM market close. If optimized transfers utilize the capacity from unscheduled firm reservations, and the rights are subsequently scheduled by their rights holders, resulting in overscheduled transmission, the market will attempt to redispatch to resolve the overscheduling condition and if redispatch fails to resolve, then PacifiCorp will curtail transmission schedules according the North American Electric Reliability Corporation (NERC) curtailment priority, such that the optimized transfers utilizing the previously unscheduled rights will be curtailed prior to any curtailment of firm rights.

Respondent: Zachary Gill Sanford

Witness: To Be Determined

May 19, 2025

WIEC Data Request 2.11

WIEC Data Request 2.11

Please provide copies of all work papers supporting RMP's responses from this set of data requests. For all work papers provided, please provide such in native electronic formats with all formulas and links intact, along with underlying workbooks.

Response to WIEC Data Request 2.11

Please refer to the Company's responses to WIEC Data Request 2.1 through WIEC Data Request 2.10. If work papers are relevant to the Company's responses, they have been provided with the respective responses.

Respondent: Not Applicable

Witness: Not Applicable

CERTIFICATE OF SERVICE

I hereby certify that on May 28, 2025, I served the foregoing *OCA's Response to WIEC's Motion to Stay* by delivering copies thereof to the following individuals/entities below, by E-mail:

Rocky Mountain Power

Stacy Splittstoesser
Wyoming Regulatory Affairs Manager
Rocky Mountain Power
315 West 27th Street
Cheyenne, Wyoming 82001
datarequest@pacificorp.com
stacy.splittstoesser@pacificorp.com

Ajay Kumar
Assistant General Counsel
PacifiCorp
825 NE Multnomah Street, Suite 200
Portland, Oregon 97232
ajay.kumar@pacificorp.com

Adam Lowney
Bill Magness
McDowell Rackner Gibson PC
419 SW 11th Avenue, Suite 400
Portland, OR 97205
(503) 595-3926
(503) 595-3625
adam@mrg-law.com
bill@mrg-law.com

Wyoming Industrial Energy Consumers

Thorvald A. Nelson
Nikolas S. Stoffel
Austin W. Jensen
William F. Prioleau
Holland & Hart LLP
555 Seventeenth Street, Suite 3200
Denver, CO 80202
Tel: (303)295-8000

tnelson@hollandhart.com
nsstoffel@hollandhart.com
awjensen@hollandhart.com
wfprioleau@hollandhart.com
Electronic Delivery:
aclee@hollandhart.com
tfriel@hollandhart.com

Interwest Energy Alliance

Chris Leger
Staff Attorney
3433 Ranch View Dr.
Cheyenne, WY 82001
Tel: (307)421-3300
chris@interwest.org

Ben Fitch-Fleischmann, PhD
Director, Markets, and Transmission
ben@interwest.org



PSC Staff

John Burbridge
john.burbridge@wyo.gov

Jozy Kline
jozy.kline@wyo.gov

Ivan Williams
ivan.williams1@wyo.gov

