

Docket No. 20000-633-ER-23
Witness: Michael G. Wilding

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Rebuttal Testimony of Michael G. Wilding

September 2023

1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Please state your name, business address, and present position with PacifiCorp**
3 **d/b/a Rocky Mountain Power (“PacifiCorp” or the “Company”).**

4 A. My name is Michael G. Wilding. My business address is 825 NE Multnomah Street,
5 Suite 2000, Portland, Oregon 97232. My title is Vice President, Energy Supply
6 Management.

7 **Q. Briefly describe your education and business experience.**

8 A. I received a Master of Accounting from Weber State University and a Bachelor of
9 Science degree in accounting from Utah State University. As Vice President, Energy
10 Supply Management (“ESM”), my responsibilities include directing PacifiCorp’s front
11 office organization in commercial and trading activities. ESM is responsible for
12 commercially managing PacifiCorp’s diverse generation portfolio. This includes the
13 electric and natural gas hedging, term and day-ahead trading, real-time trading, and
14 system balancing. I also oversee the Company’s regulatory net power cost filings and
15 its environmental reporting. Prior to assuming my current position in February 2021, I
16 worked on various regulatory projects including general rate cases, the multi-state
17 process, and net power cost filings. I have been employed by PacifiCorp since 2014.

18 **Q. Have you testified in previous regulatory proceedings?**

19 A. Yes. I have filed testimony in proceedings before the Wyoming Public Service
20 Commission (“Commission”), and the public utility commissions in California, Idaho,
21 Oregon, Utah, and Washington.

II. PURPOSE OF TESTIMONY

1
2 **Q. What is the purpose of your testimony in this proceeding?**

3 A. The purpose of my testimony is to explain: (1) what ancillary services are, in particular,
4 as it relates to Schedule 3, 3A, 5, and 6 of PacifiCorp's Open Access Transmission
5 Tariff ("OATT") and how PacifiCorp is required to provide these services by the
6 Federal Energy Regulatory Commission ("FERC"), and (2) how PacifiCorp's existing
7 rates for Schedule 3, 3A, 5, and 6 were accepted by FERC, and, therefore, are required
8 to be charged for ancillary services. Additionally, my testimony explains how these
9 FERC schedules are tied to reliability standards established by the North American
10 Electric Reliability Corporation ("NERC"). This explanation along with the remainder
11 of my testimony provides context to the testimony provided by Mr. Ramon J. Mitchell
12 and Ms. Amparo Nieto in response to the non-native reserves adjustment proposed by
13 Wyoming Industrial Energy Consumers ("WIEC") witness Mr. Bradley G. Mullins.

III. BACKGROUND

14
15 **Q. Please explain the WIEC adjustment related to non-native reserves.**

16 A. Mr. Mullins recommends the "removal of reserves" that are held for customers served
17 under Schedule 3, 3A, 5, and 6 of PacifiCorp's OATT. Mr. Mullins refers to these
18 reserves as "non-native" because they are held for third-party load and generation
19 located within the Company's balancing area. To calculate WIEC's adjustment, Mr.
20 Mullins: (1) removes the costs and associated reserves that must be held for the
21 ancillary services under Schedules 3, 3A, 5, and 6, and (2) then reruns the Net Power
22 Cost ("NPC") model as if that generation were available to be sold into energy

1 markets.¹ The adjustment is essentially the difference between the revenue generated
2 by selling the reserves at market prices and the revenue earned by the Company under
3 its OATT rates.

4 **Q. Please provide an overview of the Company's response to WIEC's adjustment.**

5 A. WIEC's adjustment is unreasonable because it is based on an inaccurate premise that
6 the Company can receive market-based revenues for the reserves held for Schedules 3,
7 3A, 5, and 6. Thus, Mr. Mullins' recommendation suffers from a fundamental
8 misunderstanding of how ancillary services rates are set. To further illustrate the flaws
9 in WIEC's adjustment:

10 • Company witness Mr. Mitchell explains that WIEC's adjustment is based on
11 the NPC impact of holding third-party reserves calculated by Mr. Mullins, which
12 represents an opportunity cost of not having economic generation capacity available to
13 serve customers or to sell into the wholesale market.

14 • Company witness Ms. Nieto explains that contrary to WIEC's adjustment,
15 OATT rates applicable to third-party load and generators are required by FERC to be
16 based on the fixed costs of the Company's generating units used to provide the
17 necessary reserves. The result is that third-parties pay for a portion of the capacity used
18 to provide reserves, and this payment is credited back to the Company's retail
19 customers through wheeling revenue.

20 • My testimony explains that because PacifiCorp is required to provide ancillary
21 services under Schedules 3, 3A, 5, and 6, it must hold the reserves that Mr. Mullins has
22 removed from his NPC modeling. By not holding the reserves, PacifiCorp would

¹ Direct Testimony of Bradley G. Mullins at 66 (WIEC Exhibit No. 202).

1 violate numerous NERC reliability standards, and complying with these reliability
2 standards is essential to ensuring that Rocky Mountain Power's Wyoming customers
3 have safe and reliable service.

4 **Q. Is it appropriate for Mr. Mullins to impute a reduction to NPC based on a**
5 **difference between OATT-based revenues that the Company receives and**
6 **wholesale market prices?**

7 A. No. It is not appropriate to impute a reduction to NPC based on the difference between
8 OATT revenue and an opportunity cost of holding reserves in the test period because
9 doing so inherently presumes that the Company could forgo providing reserves and
10 instead sell that capacity in the wholesale markets to reduce NPC. WIEC's adjustment
11 can be deduced to two points: (1) NERC standards do not allow the Company to forgo
12 holding reserves, and (2) FERC does not allow the Company to set OATT rates at
13 wholesale market prices. Consistent with this Commission's ratemaking precedent, the
14 FERC requires ancillary services to be sold at cost-based rates.

15 Moreover, setting aside the underlying conceptual flaws in WIEC's adjustment,
16 Mr. Mitchell also explains that the adjustment significantly overstates the reserves held
17 for third-parties and is therefore erroneously calculated.

18 **Q. Does Mr. Mullins acknowledge that the Company is required to hold these**
19 **reserves?**

20 A. Yes. Mr. Mullins notes in his testimony that:

21 As a Balancing Authority, the Company is required to balance all the
22 loads and resources in its BAA, including non-native loads and
23 resources. While non-native loads and resources separately track and
24 account for the cost of their own energy requirements and production,
25 RMP must still ensure that the entire BAA is in balance, including
26 balancing for non-native loads and resources. As a result, the Company

1 must provide load integration services to non-native loads and provide
2 wind and solar integration services to non-owned wind and solar
3 resources located in its BAA.²

4 **Q. Is this testimony consistent with Mr. Mullins's recommendation?**

5 A. No. As described in further detail in Mr. Mitchell's testimony, Mr. Mullins calculates
6 his adjustment by allowing his NPC model to sell into the wholesale energy markets
7 the generation (i.e., the reserves) that third-party customers paid for and that the
8 Company is required to hold. Put another way, he continues to charge the non-native
9 customers for a service, but models the Company's system as if it was not providing
10 that service. My testimony below provides the context to explain why providing these
11 ancillary services is required and supports the safety and reliability of the Company's
12 system, including its retail service to Wyoming customers.

13 **Q. How is this issue different than the removal of costs associated with non-owned**
14 **wind integration under Schedule 3, 3A, and 9 that arose in PacifiCorp's 2014 and**
15 **2015 general rate proceedings?**

16 A. In those proceedings, the Commission concluded that the Company was not recovering
17 the costs for integrating non-owned wind generation under the Company's OATT
18 schedules.³ In this case, WIEC's recommendation is not that the Company is not
19 recovering those costs, but rather that the Company should be charging those customers
20 the opportunity cost of not providing that service instead of charging them the cost-
21 based rates that are set forth in the OATT. In fact, Ms. Nieto's testimony explains why
22 the rates the Company charges for providing these services were appropriately

² Direct Testimony of Bradley G. Mullins at 60 (WIEC Exhibit No. 202).

³ *In the Matter of the Application of Rocky Mountain Power for Approval of a General Rate Increase in its Retail Electric Utility Service Rates in Wyoming of \$32.4 Million Per Year or 4.5 percent*, Docket No. 20000-469-ER-15 (Record No. 14076), Memorandum Opinion, Findings of Fact, Decision and Order at ¶98 (Dec. 30, 2015).

1 established.

2 **IV. PACIFICORP'S ANCILLARY SERVICES UNDER THE OATT**

3 **Q. What are Ancillary Services?**

4 A. FERC defines Ancillary Services as “those services that are necessary to support the
5 transmission of electric power from seller to purchaser given the obligations of control
6 areas and transmitting utilities within those control areas to maintain reliable operations
7 of the interconnected transmission system.”⁴ Ancillary Services provided under
8 Schedules 3, 3A, 5, and 6 in PacifiCorp’s OATT are the non-native reserve services that
9 are described in Mr. Mullins’s testimony.⁵

10 **Q. Does the FERC require Ancillary Services to be provided by transmission
11 providers such as PacifiCorp?**

12 A. Yes. The FERC requires ancillary services to be provided to transmission customers in
13 Order No. 888.⁶

14 **A. Background of Schedule 3 and 3A**

15 **Q. What Ancillary Services are offered under Schedules 3 and 3A of the Company’s
16 OATT?**

17 A. Schedules 3 and 3A offer Regulation and Frequency Response Service.

18 **Q. What is Regulation and Frequency Response Service?**

19 A. As defined in Schedule 3 of the OATT, Regulation and Frequency Response Service

⁴ <https://www.ferc.gov/industries-data/market-assessments/overview/glossary>

⁵ Direct Testimony of Bradley G. Mullins at 62 (WIEC Exhibit 202).

⁶ *Order Promoting Wholesale Competition Through Open-Access Non-Discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 at 31,720-21 (1996), Order No. 888-A, FERC Stats. & Regs., ¶ 31,048 at 31,934 (1997), order on reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997), order on reh'g, Order No. 888-C, 82 FERC ¶ 61,046 (1998), aff'd in part sub nom. *Transmission Access Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), cert. granted, 69 U.S.L.W. 3574 (Nos. 00-568 (in part) and 00-809) and cert. denied, id. (No. 00-800) (U.S. Feb. 26, 2001).

1 “is necessary to provide for the continuous balancing of resources (generation and
2 interchange) with load and for maintaining scheduled interconnection frequency at
3 sixty cycles per second (60 Hz).”

4 Regulation and Frequency Response Service is accomplished by raising or
5 lowering the output of generation units dedicated to providing these services by the use
6 of automatic generation control equipment to ensure the continuous balance of the
7 system and the appropriate frequency are maintained. PacifiCorp has the responsibility
8 to maintain this balance between resources and load in its balancing authority areas
9 (“BAAs”).⁷

10 **Q. What does the Company offer under Schedules 3 and 3A of its OATT for**
11 **Regulation and Frequency Response Service?**

12 A. Under Schedule 3 of its OATT, PacifiCorp offers Regulation and Frequency Response
13 Service in support of transmission service serving load within PacifiCorp’s BAAs.
14 Schedule 3A is the same basic service but is offered in support of transmission service
15 that is delivering generation from within PacifiCorp’s BAAs to serve load outside of
16 PacifiCorp’s BAAs.

17 **Q. Is Regulation and Frequency Response Service related to a NERC reliability**
18 **standard?**

19 A. Yes. Regulation and Frequency Response Service consists of two basic components: a
20 regulation reserve component that corresponds to the operations governed by NERC
21 Reliability Standard BAL-001 and a frequency response reserve component that
22 corresponds to the operations governed by NERC Reliability Standard BAL-003.

⁷ PacifiCorp operates two BAAs in the Western Electricity Coordinating Council (“WECC”) NERC region, PacifiCorp East (“PACE”) and PacifiCorp West (“PACW”).

1 **Q. Describe NERC Reliability Standard BAL-001.**

2 A. The Regulation Reserve requirement for Schedules 3 and 3A is driven by NERC
3 Reliability Standard BAL-001-2. The Control Performance Criteria in BAL-001-2
4 requires each BAA to carry regulation reserve incremental to contingency reserve to
5 maintain reliability. Under this standard, the Regulation Reserve requirement is the
6 amount of reserve required by each BAA to meet specified control performance
7 standards defined in the standard. Requirement 2 of BAL-001-2 defines the compliance
8 standard as follows:

9 *Each Balancing Authority shall operate such that its clock-minute*
10 *average 12 of Reporting [Area Control Error (“ACE”)] does not exceed*
11 *its clock minute Balancing Authority ACE Limit (BAAL) for more than 30*
12 *consecutive clock-minutes...*

13 **Q. What is the Company’s understanding of its compliance obligations under BAL-**
14 **001-2?**

15 A. The BAL-001-2 standard effectively requires PacifiCorp to keep its loads and resources
16 balanced in real-time. Specifically, the BAL-001-2 standard requires one-minute ACE
17 to be within a dynamic limit at least one full minute in 100 percent of all rolling 30-
18 minute intervals.

19 **Q. What is ACE?**

20 A. NERC defines ACE as “the instantaneous difference between a Balancing Authority’s
21 net actual and scheduled interchange, taking into account the effects of Frequency Bias,
22 correction for meter error, and Automatic Time Error Correction (“ATEC”), if operating
23 in the ATEC mode.”⁸ ACE is the measure of performance for an entity to balance

⁸ Glossary of Terms Used in NERC Reliability Standards (updated June 2, 2020), *available at*:
https://www.nerc.com/files/glossary_of_terms.pdf

1 internal demand obligations and simultaneously meet external obligations. Supply in
2 excess to demand results in a positive ACE. Demand in excess to supply results in a
3 negative ACE.

4 **Q. Describe NERC Reliability Standard BAL-003.**

5 A. The Frequency Response reserve requirement for Schedules 3 and 3A is driven by
6 NERC Reliability Standard BAL-003-2, which requires sufficient Frequency Response
7 from the Balancing Authority in response to a loss of generation. Frequency Response
8 is necessary to prevent Under Frequency Load Shedding and prevent equipment
9 damage.

10 **Q. What is the Company's understanding of its compliance obligations under BAL-**
11 **003-2?**

12 A. Requirement 2 of BAL-003-2 defines the compliance standard that is applicable to
13 PacifiCorp, as follows:

14 *Each Balancing Authority that is a member of a multiple Balancing*
15 *Authority Interconnection and is not receiving Overlap Regulation*
16 *Service and uses a fixed Frequency Bias Setting shall implement the*
17 *Frequency Bias Setting determined in accordance with Attachment A,*
18 *as validated by the ERO, into its Area Control Error (ACE) calculation*
19 *during the implementation period specified by the ERO and shall use*
20 *this Frequency Bias Setting until directed to change by the ERO.*

21 To comply with BAL-003-2, Frequency Response reserve must be deployed for periods
22 of under a minute to arrest frequency deviations and support the generator
23 interconnection when frequency drops below the scheduled level.

24 **Q. How would the Company's reliability and services to customers be impacted if it**
25 **did not comply with these NERC reliability standards?**

26 A. Non-compliance with NERC BAL-001-2 or BAL-003-2 would lead to swings in ACE
27 that would impact the frequency of the interconnected grid, requiring other entities to

1 alter their operations to maintain frequency at 60 Hz. Frequency above or below 60 Hz
2 causes damage to unprotected customer equipment and low frequency will trigger
3 automated load shedding under the Under Frequency Load Shedding criteria.
4 Additionally, PacifiCorp would be subject to monetary penalties from federal
5 oversight.

6 **B. Background of Schedules 5 and 6**

7 **Q. What Ancillary Services are offered under Schedules 5 and 6 of the Company's**
8 **OATT?**

9 A. Schedules 5 and 6 regard Spinning Reserve Service and Supplemental Reserve Service.

10 **Q. What is Spinning Reserve Service?**

11 A. Spinning Reserve Service is needed to serve load in the BAA and to support other
12 transmission usage sourced from generation in the BAA, including exports and sales.
13 Spinning Reserve Service may be provided by generating units that are on-line and
14 loaded at less than maximum output and by non-generation resources capable of
15 providing this service. PacifiCorp offers Spinning Reserve Service when the
16 transmission service is used to serve load within its BAA and to support other
17 transmission usage sourced from generation in the BAA, including exports and sales.

18 **Q. What is Supplemental Reserve Service?**

19 A. Supplemental Reserve Service is needed to serve load in the BAA and to support other
20 transmission usage sourced from generation in the BAA including exports and sales.
21 However, it is not available immediately to serve load, but rather is available within a
22 ten-minute period. Supplemental Reserve Service may be provided by generating units
23 that are on-line, but unloaded, by quick-start generation, by interruptible load or other

1 non-generation resources capable of providing this service. PacifiCorp offers this
2 service when the transmission service is used to serve load within its BAA and to
3 support other transmission usage sourced from generation in the BAA, including
4 exports and sales.

5 **Q. Is Spinning and Supplemental Reserve Service related to a NERC Reliability**
6 **Standard?**

7 A. Yes. Spinning Reserve Service and Supplemental Reserve Service is driven by
8 compliance with Western Electricity Coordinating Council (“WECC”) regional
9 Reliability Standard BAL-002-WECC-3.

10 **Q. Please describe standard BAL-002-WECC-3.**

11 A. The WECC standard BAL-002-WECC-3 applies to balancing authorities and reserve
12 sharing groups in the WECC Region and is meant to specify the quantity and types of
13 Operating Contingency Reserve required to ensure reliability under normal and
14 abnormal conditions.

15 **Q. What is the amount of Operating Contingency Reserve required under the BAL-**
16 **002-WECC-3 standard?**

17 A. The amount of total Operating Contingency Reserve—both spinning and
18 supplemental—is the greater of either: (1) the amount of contingency reserve equal to
19 the loss of the most severe single contingency; or (2) the amount of contingency reserve
20 equal to the sum of three percent of hourly integrated load plus three percent of hourly
21 integrated generation. Contingency reserve must be deployable within ten minutes,
22 and, pursuant to Requirement 2 of BAL-002-WECC-3, at least half must be from
23 “spinning” resources that are online and immediately responsive to system fluctuations.

1 **Q. How would the Company's reliability and services to customers be impacted if it**
2 **did not comply with these NERC reliability standards?**

3 A. Customer reliability would be impacted by swings in frequency, causing damage to
4 equipment. Further, the unrestrained operation would threaten neighboring BAAs,
5 increasing inadvertent interchange and accumulated time error. The impact of two
6 Balancing Areas, operating in an unsustainable manner, would endanger the Bulk
7 Electric System and lead to voltage issues, service interruptions and blackouts.
8 Violation of NERC standards incurs large punitive damages and could jeopardize the
9 management of the Balance Area requiring the Reliability Coordinator to assume
10 control.

11 **C. Establishment of Ancillary Services Rates**

12 **Q. Who establishes rates that the Company charges for ancillary services?**

13 A. The FERC has jurisdiction to establish rates for ancillary services.

14 **Q. Does FERC require that rates for Ancillary Services be cost based?**

15 A. Yes. In Order No. 888, FERC held that the transmission providers must offer a cost-
16 based rate for ancillary services.

17 **Q. Does the Company have cost based rates currently for Ancillary Services?**

18 A. Yes. FERC accepted the Company's cost-based rates in an order issued on April 1,
19 2021, in Docket No. ER21-1015. This topic is discussed further by Ms. Nieto.

20 **Q. Is the Company allowed to charge rates other than the rates approved by FERC**
21 **and set forth in the OATT?**

22 A. No. PacifiCorp must offer ancillary services and it must charge the rates that are set
23 forth in its OATT. Consequently, the revenues received by PacifiCorp under Schedules

1 3, 3A, 5, and 6 are a result of the cost-based rates that the FERC accepted as just and
2 reasonable.

3 **VI. CONCLUSION**

4 **Q. Please summarize your recommendation to the Commission.**

5 A. WIEC's adjustment is based on the false premise that the Company: (1) is free to not
6 hold the reserves required to provide ancillary services under Schedules 3, 3A, 5, and
7 6 of its OATT, and (2) can sell those reserves into the energy markets. However, Mr.
8 Mullins' approach: (1) is inconsistent with NERC reliability standards and cost-based
9 ratemaking at the federal and state level, and (2) requires the Company to model the
10 system in an unsafe and unreliable manner that would jeopardize the system. As a
11 result, the Commission should reject this adjustment.

12 **Q. Does this conclude your rebuttal testimony?**

13 A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING

IN THE MATTER OF THE)
APPLICATION OF ROCKY) DOCKET NO. 20000-633-ER-23
MOUNTAIN POWER FOR) (RECORD NO. 17252)
AUTHORITY TO INCREASE ITS)
RETAIL ELECTRIC SERVICE RATES)
BY APPROXIMATELY \$140.2)
MILLION PER YEAR OR 21.6)
PERCENT AND TO REVISE THE)
ENERGY COST ADJUSTMENT)
MECHANISM)

AFFIDAVIT, OATH AND VERIFICATION

Michael Glade Wilding (Affiant) being of lawful age and being first duly sworn, hereby deposes and says that:


Affiant is the Vice President for PacifiCorp, which is a party in this matter.

Affiant prepared and caused to be filed the foregoing testimony. Affiant has, by all necessary action, been duly authorized to file this testimony and make this Oath and Verification.

Affiant hereby verifies that, based on Affiant's knowledge, all statements and information contained within the testimony and all of its associated attachments are true and complete and constitute the recommendations of the Affiant in their official capacity as Vice President.

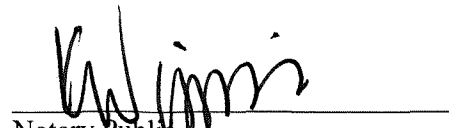
Further Affiant Sayeth Not.

Dated this 20th day of September, 2023


Michael Glade Wilding
Vice President

STATE OF OREGON)
) SS:
COUNTY OF MULTNOMAH)

The foregoing was acknowledged before me by Michael Glade Wilding on this 20th day of September, 2023. Witness my hand and official seal.


Notary Public

My Commission Expires:

