

Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Rebuttal Testimony of Ryan Fuller

September 2023

1 **I. INTRODUCTION AND WITNESS 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 Ryan Fuller, and my business address is 825 NE Multnomah Street, Suite
5 1900, Portland, Oregon 97232. My present position is Senior Tax Director.

6 **Q. Please describe your education and professional experience.**

7 A. I graduated from the University of Idaho in 1997 with a Bachelor of Science Degree in
8 Accounting. I am a licensed CPA (Inactive Status). Before joining the PacifiCorp tax
9 department in 2003, I worked in public accounting for six years, first with Talbot,
10 Korvola and Warwick, LLP and then for PricewaterhouseCoopers LLP. From
11 November 2016 through May 2018, I was employed as Tax Director for Avangrid
12 Renewables, LLC, before rejoining PacifiCorp as Senior Tax Director in May 2018.
13 As Senior Tax Director, I am responsible for management and oversight of the
14 Company’s tax function.

15 **Q. Have you testified in other regulatory proceedings?**

16 A. Yes. I have testified in regulatory proceedings in each of the Company’s six state
17 jurisdictions on various tax-related matters.

18 **II. PURPOSE AND SUMMARY OF TESTIMONY**

19 **Q. What is the purpose of your rebuttal testimony?**

20 A. My rebuttal testimony responds to the proposal made by Wyoming Industrial Energy
21 Consumers (“WIEC”) witness Mr. Bradley G. Mullins to use a 2024 Federal
22 Production Tax Credit (“PTC”) Rate of 3.0 cents per kilowatt hour (“kWh”) for

1 purposes of setting rates in this case. More specifically, in recommending the Wyoming
2 Public Service Commission (“Commission”) reject Mr. Mullins’ proposal:

- 3 • I explain how Mr. Mullins’ reliance on a dissimilar price index renders his
4 conclusions invalid; and
- 5 • I provide objective evidence that supports a 2024 PTC of 2.9 cents per kWh as used
6 by the Company in its filing.

7 My rebuttal testimony also responds to WIEC witness Mullins’ significant and far-
8 reaching recommendation to completely change how the Company accounts for state
9 taxes in rates. His proposal would change from the longstanding use of the normalized
10 method of accounting to the flow-through method of accounting and would introduce
11 customer inequities into Wyoming rates.

12 **III. WIEC’S PROPOSED 2024 PTC RATE**

13 **Q. Please explain the data needed to calculate the 2024 PTC Rate.**

14 A. Please refer to RMP Exhibit 13.1. The formula for calculating the 2024 PTC Rate is
15 provided in Section A and includes three inputs: (1) the 2023 Gross Domestic Product
16 (“GDP”) Implicit Price Deflator, (2) the 1992 GDP Implicit Price Deflator, and (3) the
17 Base PTC Rate. As illustrated in Section B of RMP Exhibit 13.1, of these three inputs,
18 only the 2023 GDP Implicit Price Deflator is unknown at this time, and it will not be
19 known until it is published by the Department of Commerce’s Bureau of Economic
20 Analysis (“BEA”) in February 2024.

21 **Q. With respect to the 2024 PTC Rate, what facts should be agreed upon by
22 PacifiCorp and WIEC?**

23 A. Both PacifiCorp and WIEC agree, the minimum 2024 Inflation Adjustment Factor

1 needed to produce a 2024 PTC Rate of 3.0 cents per kWh is 1.9667.¹ Filling in this
 2 blank allows for the derivation of the minimum 2023 GDP Implicit Price Deflator
 3 needed to produce a 2024 Inflation Adjustment Factor of 1.9667; the value derived is
 4 132.321 as illustrated in RMP Exhibit 13.1, Section C. If the 2023 GDP Implicit Price
 5 Deflator is lower by just one-thousandth, as illustrated in Section D, it will produce a
 6 2024 Inflation Adjustment Factor of 1.9666 and a 2024 PTC Rate of 2.9 cents per kWh.
 7 In summary, both PacifiCorp and WIEC should agree to the following three facts:

- 8 1. The minimum 2024 Inflation Adjustment Factor needed to produce a 2024 PTC
 9 Rate of 3.0 cents per kWh is 1.9667.
- 10 2. The minimum 2023 GDP Implicit Price Deflator needed to produce a
 11 2024 Inflation Adjustment Factor is 132.321.²
- 12 3. The 2022 GDP Implicit Price used for determining the 2023 PTC rate is
 13 127.224.³

14 **Q. What issue is before the Commission to decide the 2024 PTC Rate used for the**
 15 **Test Period?**

16 A. PacifiCorp used a projected 2024 PTC Rate of 2.9 cents per kWh for the purpose of the
 17 Test Period.⁴ WIEC proposes using a projected 2024 PTC Rate of 3.0 cents per kWh.

¹ WIEC calculates the minimum 2023 GDP Implicit Price Deflator needed to produce a 2024 PTC rate of 3.0 cents per kWh in the Excel version of WIEC Exhibit No. 202.8, cell L39.

² WIEC incorrectly calculates a minimum 2023 GDP Implicit Price Deflator of 132.313 in WIEC Exhibit No. 202.8 due to the erroneous use of a 1992 GDP Implicit Price Deflator of 67.277, which can be seen in the Excel version of the Exhibit. The correct 1992 GDP Implicit Price Deflator is 67.282 as provided in RMP Exhibit 13.3, Table 3.

³ In WIEC Exhibit No. 202.8, WIEC unnecessarily estimates the annual value of the 2022 GDP Implicit Price deflator as the average of the quarterly GDP Implicit Price Deflator values published by the BEA for 2022. The actual annual value of the 2022 GDP Implicit Price Deflator used for the purposes of determining the 2023 PTC rate is 127.224, sourced from the BEA Data Archive: National Accounts (NIPA) at <https://apps.bea.gov/histdata/histChildLevels.cfm?HMI=7>; Year, Quarter: 2022, Q4, Vintage: Second, Section 1, Tab T10109-A, cell CS9.

⁴ The Test Period is the 12-month period beginning January 1, 2024 through December 31, 2024.

1 The 2024 PTC Rate is entirely dependent on the value of the 2023 GDP Implicit
2 Price Deflator that will be published by the BEA in February 2024. The issue before
3 the Commission is whether or not the price index will be less than 132.321, in which
4 case, the PTC rate will be 2.9 cents per kWh as projected by the Company.

5 **Q. Please summarize the analysis performed by WIEC witness Mr. Bradley G.**
6 **Mullins.**

7 A. Albeit using incorrect values, in WIEC Exhibit No. 202.8, Mr. Mullins simply
8 calculates the year-on-year change in value of the GDP Implicit Price Deflator needed
9 to achieve a 2024 PTC Rate of 3.0 cents per kWh and converts the change in value to
10 a percentage change in a manner consistent with following table (in which the correct
11 values are used):

GDP Implicit Price Deflator	
Minimum 2023 value needed to achieve a 2024 PTC rate of 3.0 cents per kWh	132.321
Actual 2022 Value	127.224
Change in Value	5.097
Percentage Change In Value	4.006%

12 Mr. Mullins, then observes that “it can be determined that the PTC rate will increase to
13 3.0 cents per kWh in 2024 so long as inflation equals or exceeds 4.0% on an annualized
14 basis for 2023, *as measured by the GDP Implicit Price Deflator* (emphasis added).”⁵

15 **Q. Does Mr. Mullins provide evidence that inflation will equal or exceed 4.0 percent**
16 **on an annualized basis for 2023, as measured by the GDP Implicit Price Deflator?**

17 A. No. To support the likelihood that inflation will exceed his calculated target,
18 Mr. Mullins does not cite forecast percentage rate changes for the price index by which
19 he says inflation must be measured, the GDP Implicit Price Deflator.

⁵ Direct Testimony of Bradley G. Mullins at 82: 5-7 (WIEC Exhibit No. 202).

1 Instead, Mr. Mullins cites a forecast annualized percentage change range for a
2 price index that does not even closely mirror the GDP Implicit Price Deflator: The Core
3 Personal Consumption Expenditures (“PCE”) Price Index.⁶

4 The Core PCE Index measures prices for goods and services that are produced
5 in or imported to the U.S. and bought by consumers; the index also excludes food and
6 energy. In contrast, the GDP Implicit Price Deflator measures prices for goods and
7 services that are produced in or exported from the U.S. and bought by consumers,
8 business, and governments.

9 These significant differences, illustrated in RMP Exhibit 13.2, make the
10 conclusions drawn from the Core PCE Price Index by Mr. Mullins invalid, especially
11 because objectively better information is readily available.

12 **Q. What objectively better information is available to make an informed decision on**
13 **the value of the 2023 GDP Implicit Price Deflator?**

14 A. While the Company is not presently aware of a publicly available forecast of the GDP
15 Implicit Price Deflator, there is another price index which closely mirrors the GDP
16 Implicit Price Deflator for which a forecast is publicly available – the GDP Price
17 Index.⁷

18 In RMP Exhibit 13.3, Table 3, the Company provides a comparison of the
19 historical price index values for the annual GDP Implicit Price Deflator and the annual

⁶ *Id.*, at 82: 10-16.

⁷ *See*, the BEA’s “Quick Guide: Some Popular BEA Price Indexes” provided as RMP Exhibit 13.2. In this document the BEA makes this note about the GDP Implicit Price Deflator: “Closely mirrors the GDP Price index, although calculated differently.”

1 GDP Price Index for the years 1992 through 2022,⁸ a period that covers the duration of
2 the existence of the PTC. RMP Exhibit 13.3, Table 2 summarizes the maximum
3 variance between the two price indexes, both positive and negative, and the average
4 variance over the subject time period. These two tables demonstrate and establish that
5 the GDP Implicit Price Deflator closely mirrors the GDP Price Index as noted by the
6 BEA.

7 The Congressional Budget Office’s July 2023 report, *An Update to the*
8 *Economic Outlook: 2023 to 2025*, forecasts the 2023 GDP Price Index at 132.003, a
9 3.776 percent increase over the 2022 GDP Price Index.⁹ This forecast is below the GDP
10 Implicit Price Deflator of 132.312, or 4.006 percent increase over the 2022 GDP Price
11 Index, needed to achieve WIEC’s proposed 2024 PTC rate of 3.0 cents per kWh, even
12 when adjusted for the maximum and average variances as summarized in RMP Exhibit
13 13.3, Table 1.

14 **Q. Are there any other reasons that invalidate the conclusions drawn by Mr.**
15 **Mullins?**

16 A. Yes. For reasons not explained, Mr. Mullins uses fourth quarter values to calculate what
17 he mischaracterizes as “annualized inflation rates” in the GDP Implicit Price Deflator
18 of 6.418 percent and 6.409 percent for 2021 and 2022, respectively.¹⁰ He compares
19 these percentages to 2021 and 2022 annual inflation rates in the Core PCE Index to

⁸ The data for RMP Exhibit 13.3, Table 3, is sourced from the BEA Data Archive: National Accounts (NIPA) at <https://apps.bea.gov/histdata/histChildLevels.cfm?HMI=7>; Year, Quarter: 2022, Q4, Vintage: Second. The historical GDP Price Index values are located in Section 1, Tab T10104-A, row 9. The historical GDP Implicit Price Deflator values are located in Section 1, Tab T10109-A, row 9.

⁹ See, RMP Exhibit 13.4 in electronic format, Tab 2. Calendar Year, Cell H57. The Exhibit was downloaded from <https://www.cbo.gov/data/budget-economic-data#11>. Under 10-Year Economic Projections, select the link for July 2023.

¹⁰ WIEC’s response to RMP Data Request 2.2, provided as RMP Exhibit 13.5.

1 draw a “historical” comparison¹¹ that he proposes can be used to project a “more likely
2 than not” outcome for the 2023 GDP Implicit Price Deflator.¹² This argument has two
3 important flaws.

4 First, in a September 7, 2023, hearing before the Public Utility Commission of
5 Oregon, which included cross-examination on an identical PTC adjustment,
6 Mr. Mullins’ conceded that the GDP Implicit Price Deflator was “quite high” relative
7 to the Core PCE Index in the two years of historical data he used, making his
8 comparison of the historical relationship insufficient to forecast the same relationship
9 in 2024.¹³

10 Second, a percentage change in values between sequential three-month periods
11 (i.e., quarters) can be annualized, but a percentage change between values for two non-
12 sequential three-month periods, as Mr. Mullins has calculated, cannot be annualized
13 and has not been annualized. Setting aside an argument that an analysis of two years is
14 insufficient to establish historic relationships between two price indexes, this is an
15 oversight that further invalidates the only substantive argument put forth by Mr.
16 Mullins.

17 **Q. Can anything useful be derived from WIEC Exhibit No. 202.8?**

18 A. Yes. While the calculation of the 2024 Inflation Adjustment Factor relies on annual
19 values of the 2023 GDP Implicit Price Deflator that will not be published until February
20 2024, WIEC Exhibit No. 202.8 demonstrates that an average of quarterly GDP Implicit
21 Price Deflator estimates produces an accurate projection of the annual value. As of the

¹¹ WIEC’s response to RMP Data Request 2.3, provided as RMP Exhibit 13.6.

¹² Direct Testimony of Bradley G. Mullins at 81: 13-14 (WIEC Exhibit No. 202).

¹³ RMP Exhibit 13.7 at 15: 22-24.

1 drafting of this testimony, the BEA has published quarterly estimates for Q1 and Q2 of
2 2023.

3 At the bottom of WIEC Exhibit No. 202.8, Mr. Mullins has included a section
4 labeled “2023 Forecast.” In the following table, this section has been updated with the
5 most recently published GDP Implicit Price Deflator estimate for Q2 2023 of 131.453¹⁴
6 and expanded to include annualized rates of inflation.

Projection of Annualized Rate for Q3 and Q4 of 2023 to Achieve an Annual GDP IPD of 132.321						
Item	Published			Projection		
	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2023 Annual
GDP Implicit Price Deflator	129.508	130.800	131.453	132.823	134.207	132.321
% Change Quarter-to-Quarter	-----	0.998%	0.499%	1.042%	1.042%	-----
% Change at an Annual Rate	-----	4.051%	2.012%	4.234%	4.234%	-----

7 This analysis shows the annualized rate of inflation in the Q2 2023 GDP
8 Implicit Price Deflator (2.012 percent) decreased by 50 percent as compared to the
9 annualized rate of inflation in the Q1 2023 GDP Implicit Price Deflator (4.051 percent).
10 The analysis also shows to achieve an annual GDP Implicit Price Deflator of 132.321,
11 inflation must occur at an annualized rate of 4.234 percent for each of the next two
12 quarters assuming inflation is experienced ratably.

13 This analysis weighs against the likelihood of the 2023 annual GDP Implicit
14 Price Deflator reaching a value equal to or greater than 132.321. Mr. Mullins has
15 submitted no explanation or evidence as to why inflation in the GDP Implicit Price
16 Deflator would suddenly jump to annualized rates in excess of Q1 2023 after cooling
17 off so significantly in Q2 2023. Indeed, in the same Oregon proceeding referenced
18 above, Mr. Mullins conceded that “inflation has softened some” over the course of

¹⁴ The published values of the Q4 2022, Q1 2023, and Q2 2023 GDP Implicit Price Deflators are sourced from the BEA Data Archive: National Accounts (NIPA) at <https://apps.bea.gov/histdata/histChildLevels.cfm?HMI=7;Year,Quarter:2023,Q2,Vintage:Second,Section1,TabT10109-A,cellsKU9,KV9,andKW9,respectively>.

1 2023 and that the increase to the PTC he recommends is “not a slam dunk” and “could
2 go either way.”¹⁵

3 **Q. Has the PTC rate been contested between WIEC and PacifiCorp in past**
4 **proceedings?**

5 A. Yes. In the Company’s most recently decided rate case, Docket No. 20000-578-ER-20,
6 Mr. Mullins argued against the Company’s projected 2021 PTC rate of 2.5 cents per
7 kWh, in favor of 2.6 cents per kWh.¹⁶ The actual PTC rate for 2021 is 2.5 cents per
8 kWh as projected by the Company.¹⁷

9 **Q. Based on this information, what 2024 PTC Rate should be used for the Test**
10 **Period?**

11 A. The Congressional Budget Office forecast of the 2023 GDP Price Index, the reliance
12 upon which results in a 2024 PTC Rate of 2.9 cents per kWh, is independent and
13 objective data to which weight can be given and is of far better quality than the data
14 cited by WIEC. Furthermore, WIEC has submitted nothing in the record to explain or
15 support why inflation in the GDP Implicit Price deflator would jump drastically, as is
16 needed to result in a PTC Rate of 3.0 cents per kWh, for the remaining two quarters of
17 2023 after cooling off so significantly in the second quarter. For these reasons, the best
18 estimate of the 2024 PTC Rate is 2.9 cents per kWh as projected by the Company.

¹⁵ RMP Exhibit 13.7 at 9: 2-4.

¹⁶ Docket No. 20000-578-ER-20 Direct Testimony of Bradley G. Mullins at 55-58 (WIEC Exhibit No. 302); Rebuttal Testimony of Nicholas L. Highsmith at 29-31; Response to Rocky Mountain Power Rebuttal Testimony and Exhibits of Bradley G. Mullins at 29-32 (WIEC Exhibit No. 310); Sur-Reply Testimony of Nicholas L. Highsmith at 13-16.

¹⁷ Internal Revenue Service Notice 2021-32, 201-32 IRB 1159.

1 **IV. WIEC’S PROPOSED CHANGE IN ACCOUNTING POLICY**

2 **Q. Please summarize WIEC’s proposed change in accounting policy.**

3 A. Mr. Mullins proposes the Commission require PacifiCorp to adopt a sweeping policy
4 change with respect to its long-standing method of accounting for state temporary
5 book-tax differences for ratemaking and regulatory reporting purposes in Wyoming,
6 on a retrospective basis.

7 At the outset it is important to point out that Mr. Mullins’ testimony contains
8 no citations to expert analysis, authoritative literature, court cases, or studies conducted
9 on the topic of normalization versus flow-through accounting for income taxes. The
10 absence of citations is particularly noteworthy because Mr. Mullins’ recommendation
11 has been the subject of extensive analysis, which I discuss below, the balance of which
12 weighs against his proposal. Moreover, Mr. Mullins’ testimony is incomplete because
13 it lacks substantive analysis, including financial projections that would be necessary to
14 ensure there are no adverse impacts to customers or the Company if his
15 recommendation were implemented.

16 **Q. As background, please explain the difference between how income taxes are**
17 **reported for ratemaking on a normalized basis as compared to a flow-through**
18 **basis.**

19 A. Citing from *Accounting for Public Utilities*, “certain transactions may affect the
20 determination of net income for financial accounting purposes in one reporting period
21 and the computation of taxable income in a different reporting period. Thus, revenues
22 or gains and expense or losses may be included in the determination of taxable income
23 either earlier or later than they are included in pre-tax accounting income. Therefore,

1 the amount of income taxes determined to be payable for a period does not necessarily
2 represent the appropriate income tax expense applicable to the transactions recognized
3 for financial accounting purposes in that period.”¹⁸ In this explanation the phrase “for
4 financial accounting purposes” could easily be substituted with “for ratemaking and
5 regulatory reporting purposes.”

6 When income taxes are reported on a normalized basis, the Company’s income
7 taxes include a provision for: 1) current income taxes, and 2) deferred income taxes.
8 Additionally, the Company’s rate base includes a reduction for accumulated deferred
9 income taxes, which can be viewed as a zero-cost source of capital.

10 As a policy matter, the Company supports a normalized method of accounting
11 for income taxes based on the matching principle and intergenerational equity, as
12 described in *Accounting for Public Utilities*.¹⁹ A normalized method of accounting
13 matches tax benefits with cost responsibility and prevents customers who pay for the
14 cost of an asset well past its tax life from paying a disproportionately higher tax rate
15 than customers that pay for the same asset during its tax life. Because a normalized
16 method of accounting matches tax benefits with cost responsibility, all customers pay
17 the same effective tax rate over the asset’s entire life.

18 When income taxes are reported on a flow-through basis, the Company’s
19 income taxes include a provision for current income taxes only. Additionally, no
20 reduction is made to the Company’s rate base for accumulated deferred income taxes.

21 While the flow-through method of accounting limits recovery of income taxes
22 in revenue requirement to the expected cash tax liability for the test period, customers

¹⁸ *Accounting for Public Utilities*, Publication 16, Release 39, December 2022, §17.01[1] at 17-3.

¹⁹ *Id.*, at §17.01[6][b] at 17-13.

1 lose the benefits of the matching principle and intergenerational equity. In addition,
 2 because current tax liabilities can be materially different from one year to the next,
 3 flow-through accounting introduces rate volatility as compared to a normalized method
 4 of accounting for income taxes.

5 The ratemaking differences between the two methods of accounting for income
 6 taxes are illustrated in the following table:

Ratemaking Component	Method of Accounting	
	Normalization	Flow-Through
Provision for Current Income Tax	X	X
Provision for Deferred Income Tax	X	N/A
Rate Base Adjustment for Accumulated Deferred Income Tax	X	N/A

7 **Q. Both the Federal Energy Regulatory Commission (“FERC”) and the National**
 8 **Regulatory Research Institute (“NRRI”) thoroughly studied these two methods of**
 9 **accounting. What were some of their findings?**

10 A. After exhaustive research, analysis, and input from interested stakeholders on both
 11 sides of the issue the FERC and NRRI found in favor of the normalized method of
 12 accounting for income taxes. For example, the FERC had this to say about
 13 normalization:

14 As reiterated throughout this rule, tax normalization better achieves the
 15 goals of equity and fairness in rates than does flow-through. The primary
 16 rationale for tax normalization is matching: the recognition in rates of the
 17 tax effects of expenses and revenues with the expenses and revenues
 18 themselves. In terms of expenses only, this means that tax normalization
 19 matches tax benefits with cost responsibility. Tax normalization allocates
 20 the tax benefits of an expense to the same time periods that the expense
 21 itself is allocated. The Commission finds that this matching results in a
 22 more equitable interperiod allocation of tax costs to customers than does
 23 flow-through.²⁰

24 FERC concluded that normalization “most successfully” achieves the “broad

²⁰ FERC Order No. 144 at 13.

1 regulatory goals of equitable treatment of ratepayers and investors [and] long-term cost
2 minimization consistent with service reliability and cost based rates[.]”²¹

3 And the NRRI, which unlike the FERC did not make an explicit
4 recommendation for either accounting policy, had this to say about flow-through:

5 Given all of the accumulated evidence, which ratemaking treatment of
6 the tax benefits is the most appropriate from an economic perspective,
7 normalization or flow-through? Depending on the criteria used for
8 judgement and the circumstances under which the regulation will occur,
9 a case can be made for both regulatory procedures. However, based on
10 the criteria employed in this study the case for flow treatment appears to
11 be the more limited and risky and is therefore weaker.²²

12 **Q. Mr. Mullins makes the argument that normalization results in a continual**
13 **deferral income of income taxes.²³ Is that true?**

14 A. No. Both the FERC and NRRI squarely rejected Mr. Mullins’ argument, often referred
15 to as “continuous tax deferrals,” “permanent tax savings,” or “phantom taxes.” On this
16 topic, the FERC said:

17 Continual tax deferrals are often referred to by the misnomer ‘permanent
18 tax savings. This term has the connotation that taxes are not only deferred
19 but are also somehow permanently forgiven. This is inaccurate.
20 Regardless of the number of individual timing differences affecting a
21 given utility, each such timing difference will reverse so that, over the
22 life of the transaction, the total amount of the transaction recognized for
23 ratemaking will equal the total amount recognized for tax purposes.
24 Deferred taxes associated with each timing difference are, in fact
25 recognized, whether or not the reversals of an initial timing difference
26 are replaced by new timing differences of the same or larger magnitude.²⁴

27 And the NRRI observed:

28 Obviously, the relationships between utility rates and tax payments under
29 the alternative regulatory treatments of accelerated depreciation are
30 complex. The phantom tax argument draws attention to an important

²¹ *Accounting for Public Utilities*, Publication 16, Release 39, December 2022, §17.06[b] at 17-12.

²² D. Kiefer, *Accelerated Depreciation and the Investment Tax Credit in the Public Utility Industry: A Background Analysis* (Columbus, Ohio, NRRI, Apr 1979) at 12.

²³ Direct Testimony of Bradley G. Mullins at 73:8 – 74:6 (WIEC Exhibit No. 202).

²⁴ *Accounting for Public Utilities*, Publication 16, Release 39, December 2022, §17.06[a] at 17-11 – 17-12.

1 issue, but it is oversimplified to the extent of being misleading and
2 fallacious.²⁵

3 For its part, the treatise *Accounting for Public Utilities* explained the flaw in
4 Mr. Mullins' reasoning:

5 The error in the phantom tax argument may be seen by an analogy with
6 the growth of a long-term debt account. As any issue of long-term debt
7 reaches maturity, it must be repaid. At the same time, new plant additions
8 may require that capital be raised through additional long-term
9 borrowing to finance the additions. That new debt issues may exceed
10 repayment of maturing debt over any period, resulting net growth of
11 long-term debt, in no way means that the debt is not being repaid, or that,
12 in the future when new the new issue matures, it will not have to be
13 repaid.²⁶

14 These excerpts are a just a sample of the helpful insights that can be garnered
15 from the detailed studies conducted by the FERC and the NRRI, and from the treatise
16 *Accounting for Public Utilities*. They are provided here to simply illustrate that
17 thoughtful consideration has been given to this topic by experts and much of the
18 analysis runs contrary to the testimony and recommendation of Mr. Mullins.

19 **Q. Mr. Mullins also claims that his recommendation to use flow-through accounting
20 promotes intergenerational equity.²⁷ Is that true?**

21 **A.** No, quite the opposite. Again, as explained in *Accounting for Public Utilities*:

22 Under flow-through treatment on a given piece of property, the measured
23 cost of service is reduced in the early years of property life and, other
24 things being equal, the cost of service as measured in the later years will
25 increase by a like amount, although the service is identical. Flow-
26 through, therefore, causes a shifting of costs from the ratepayer in the
27 early years of the property life to a ratepayer in the later years of property
28 life, without any difference in service benefits related thereto. The
29 normalization procedure avoids this shifting of costs, resulting in a

²⁵ D. Kiefer, *Accelerated Depreciation and the Investment Tax Credit in the Public Utility Industry: A Background Analysis* (Columbus, Ohio, NRRI, Apr 1979) at 12.

²⁶ *Accounting for Public Utilities*, Publication 16, Release 39, December 2022, §17.01[6][a] at 17-11.

²⁷ Direct Testimony of Bradley G. Mullins at 74 (WIEC Exhibit No. 202).

1 proper assignment of annual costs.²⁸

2 **Q. What is PacifiCorp’s method of accounting for income taxes in its regulatory**
3 **jurisdictions?**

4 A. PacifiCorp uses a fully normalized method of accounting for income taxes in each of
5 the six state jurisdictions for which its retail rates are regulated, and for rates established
6 by the FERC.

7 The Commission approved tax normalization for PacifiCorp in 1996.²⁹ On the
8 issue of whether or not PacifiCorp should be allowed to convert from partial flow-
9 through to full normalization, the Commission found that:

10 The tax normalization proposed by PacifiCorp should be approved
11 because it is in the long run fairer to all of PacifiCorp’s ratepayers than
12 continuation of the current system which denies benefits to ratepayers in
13 the future who still retain the responsibility to pay for the asset to which
14 the flowed through benefit would have pertained had normalization
15 preserved that benefit.³⁰

16 More recently, PacifiCorp’s request to use a fully normalized method of
17 accounting was approved by the Washington Utilities and Transportation Commission
18 on a prospective basis beginning January 1, 2021, who approved the request in part
19 because:

20 Also at the hearing, Staff witness Ball explained Staff’s, if not all other
21 Parties’, rationale for supporting the accounting switch. Ball stated that
22 using the normalized method of accounting for these temporary tax-book
23 differences would align the liabilities – money owed to ratepayers – with
24 their corresponding assets and should help the Commission and its Staff
25 match the benefits with the costs originally yielding the tax deferrals. We
26 agree.³¹

²⁸ *Accounting for Public Utilities*, Publication 16, Release 39, December 2022, 17.01[6][b] at 17-13.

²⁹ Docket No. 20000-ER-95-99, Final Order, provided as RMP Exhibit 13.8.

³⁰ *Id.*, at 19, Paragraph 11d.

³¹ *WUTC v. PacifiCorp, d/b/a Pac. Power & Light Co.*, Washington Utilities and Transportation Commission Docket Nos. UE-191024, UE-190750, UE-190929, UE-190981, UE-180778 (cons.), Final Order 09/07/12, ¶144 (Dec. 14, 2020).

1 **Q. Has Mr. Mullins made a similar proposal for flow-through in other proceedings?**

2 A. Yes. In Oregon, testifying as a witness for the Alliance of Western Energy Consumers
3 (“AWEC”), Mr. Mullins has made a nearly verbatim proposal in Portland General
4 Electric’s pending general rate case. In rebuttal testimony, Oregon Public Utility
5 Commission Staff oppose AWEC’s proposal finding it is “unfair to customers across
6 time.”³²

7 **Q. How do you respond to Mr. Mullins testimony that other utilities use flow-through
8 accounting?**

9 A. Mr. Mullins brief testimony on this subject was provided without context, without
10 comparing the facts and circumstances of the other utilities to PacifiCorp, without any
11 evidence on the deliberations that formed the basis for a commission’s decision, and
12 without citing any state public utility commission-issued guidance that actually
13 establish “specific policies requiring the use of flow-through accounting for state
14 income taxes.”

15 Looking more broadly than the small sample cited by Mr. Mullins, according
16 to an informal July 2023 Edison Electric Institute Survey, in which 31 companies, who
17 collectively represent 43 of the 50 possible state jurisdictions and District of Columbia
18 responded, approximately 85 percent reported using the full normalization method of
19 accounting for income taxes.³³

³² In re Portland General Electric Request for General Rate Revision, Public Utility Commission of Oregon Docket No. UE 416, Exhibit Staff/3000, Rebuttal Testimony of Itayi Chipanera, at 5 (Aug. 22, 2023).

³³ In re Portland General Electric Request for General Rate Revision, Public Utility Commission of Oregon Docket No. UE 416, Exhibit PGE/1704, Reply Testimony of Greg Batzler and Jaki Ferchland, at 5 (Aug. 22, 2023). Provided as RMP Exhibit 13.9.

1 **Q. Mr. Mullins proposes implementing the policy change on a retrospective basis.**
2 **What concerns do you have with that?**

3 A. In testimony, Mr. Mullins proposes returning all Accumulated State Deferred Income
4 Taxes (“ADSIT”) to customers.³⁴ He likens this to return of Excess Deferred Income
5 Taxes (“EDIT”) to customers that results from a reduction in a statutory tax rate similar
6 to what occurred with the Tax Cuts and Jobs Act of 2017,³⁵ which reduced the federal
7 statutory rate to 21 percent from 35 percent. In fact, there is no equivalency between
8 the two.

9 With EDIT, a company’s long-term tax liability has been reduced and the
10 excess collected in rates is returned to customers because the amounts are no longer
11 needed to pay a tax liability. Here, the long-term tax liability remains unchanged and
12 the taxes are still needed for payment. What Mr. Mullins proposes takes monies
13 collected over decades from past customers,³⁶ refunds it all now to current customers,
14 only for the same amounts to be collected from future customers as the liabilities
15 become due. In this regard, Mr. Mullins’ proposal is supremely unfair to both past and
16 future customers. Beyond that, the adjustment proposed by Mr. Mullins is improper.

17 **Q. Why is the adjustment proposed by Mr. Mullins improper?**

18 A. Mr. Mullins is proposing a retrospective transition from normalization to flow-through,
19 which includes the return of all ADSIT to customers; \$96.6 million by his
20 calculations.³⁷ In his own words, Mr. Mullins considers this the “principal beneficial

³⁴ Direct Testimony of Bradley G. Mullins at 72, 14:21 (WIEC Exhibit No. 202).

³⁵ *Id.*

³⁶ Acknowledged by Mr. Mullins as “deferred taxes ratepayers formerly contributed to RMP.” See Direct Testimony of Bradley G. Mullins at 72: 19 (WIEC Exhibit No. 202).

³⁷ WIEC Exhibit No. 202.6.

1 aspect of the change in accounting method.”³⁸

2 Principally speaking Mr. Mullins adjustment is improper because a
3 retrospective adjustment should be based on historical actual, end-of-period balances
4 at the point in time the transition is set to occur, thus making it reflective of amounts
5 actually collected from customers. Mr. Mullins adjustment is based on a forecast test
6 period, the calendar year 2024, and using 13-month average balances. As part of his
7 adjustment, Mr. Mullins proposes to remove state income deferred income tax expense
8 from the test period,³⁹ meaning the Company would never actually collect from
9 customers the 2024 deferred state income tax expense that was used to arrive at the
10 balances on which Mr. Mullins proposes to base the refund. In other words, Mr.
11 Mullins’ adjustment would result in the Company returning amounts to customers in
12 excess of what has been collected in rates.

13 Additionally, the adjustment is based on the Company’s initial filing, plus one
14 rate base adjustment proposed by WIEC witness Mr. Kevin C. Higgins.⁴⁰ Using test
15 period balances means the adjustment cannot be quantified until after the Commission
16 renders a decision. And, finally, Mr. Mullins is in error because the adjustment fails to
17 remove the federal benefit of state income taxes.

18 For all of these reasons Mr. Mullins proposed adjustment is improper and
19 unsuitable for use by the Commission for the purpose of adjusting PacifiCorp’s revenue
20 requirement in this proceeding.

³⁸ Direct Testimony of Bradley G. Mullins at 76: 8-10 (WIEC Exhibit No. 202).

³⁹ WIEC Exhibit No. 202.6.

⁴⁰ WIEC’s response to RMP Data Request 3.1 with attachment, provided as RMP Exhibit 13.10.

1 **Q. How do you respond to Mr. Mullins' testimony regarding PacifiCorp's net**
2 **operating loss ("NOL") carryforwards?⁴¹**

3 A. The NOL Example Calculation in RMP Exhibit 13.11 illustrates how, in a taxable year
4 where allowable deductions exceed gross income (i.e., a taxable year when a net
5 operating loss is generated), customers benefit from the excess deductions by way of
6 lower income tax expense when using a normalized method of accounting.

7 Additionally, Mr. Mullins' testimony on PacifiCorp's NOLs contains numerous
8 misstatements, two of which I'd like to address here. First, Mr. Mullins' testimony that
9 the Company has been generating significant net operating losses year-over-year⁴² is a
10 misstatement of fact and is contradicted by data in his possession.⁴³ Second,
11 Mr. Mullins' testimony that PacifiCorp's deferred tax asset for net operating losses is
12 hypothetical⁴⁴ is a misstatement of fact derived from unsubstantiated speculation;
13 PacifiCorp does not record hypothetical assets in its financial statements.

14 **Q. What is your recommendation regarding Mr. Mullins proposal for the**
15 **Commission require PacifiCorp to convert from a normalized method of**
16 **accounting for income taxes to flow-through?**

17 A. The Commission should reject WIEC's proposal as it is improper and unfair to
18 customers. However, if the Commission determines it should investigate such a
19 sweeping accounting policy, it should conduct a robust process that involves input from
20 interested stakeholders, especially Commission Staff and other affected Wyoming

⁴¹ Direct Testimony of Bradley G. Mullins at 70-72 (WIEC Exhibit No. 202).

⁴² *Id.*, at 70: 3-5 (WIEC Exhibit No. 202).

⁴³ See RMP response to WIEC Data Request 1.19, Confidential Attachment WIEC 1.19-1, Detail tab, which specifically identify the years in which RMP's state NOLs were generated that form the basis of the NOL deferred tax asset reported in the base period.

⁴⁴ Direct Testimony of Bradley G. Mullins at 71: 1-2 (WIEC Exhibit No. 202).

1 utilities.

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

3 **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

Ryan Fuller (Affiant) being of lawful age and being first duly sworn, hereby deposes and says that:

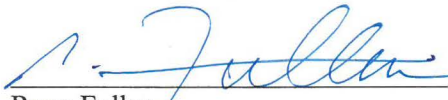
Affiant is the Sr. Tax Director for PacifiCorp, which is a party in this matter.

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 Sr. Tax Director.


Further Affiant Sayeth Not.

Dated this 20th day of September, 2023

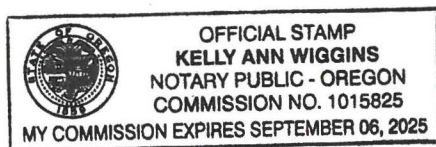

 Ryan Fuller
 Sr. Tax Director

STATE OF Oregon)
) SS:
 COUNTY OF Multnomah)

The foregoing was acknowledged before me by Ryan Fuller on this 20 day of September, 2023. Witness my hand and official seal.


 Notary Public

My Commission Expires:



Rocky Mountain Power
Exhibit 13.1
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
Example 2024 PTC Rate Calculations

September 2023

A	$\frac{2023 \text{ GDP Implicit Price Deflator}}{1992 \text{ GDP Implicit Price Deflator}} =$	2024 Inflation Adjustment Factor	X	Base PTC Rate	=	2024 PTC Rate
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B	$\frac{X}{67.282} =$?	X	0.015	=	?
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C	$\frac{132.321}{67.282} =$	1.9667	X	0.015	=	0.030
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D	$\frac{132.320}{67.282} =$	1.9666	X	0.015	=	0.029
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Note 1: The Department of Commerce Bureau of Economic Analysis publishes the GDP Implicit Price Deflator to the thousandth. The Internal Revenue Service publishes the Inflation Adjustment Factor to the ten-thousandth. Internal Revenue Code (IRC) Section 45 requires the PTC rate to be rounded to the nearest 0.1 cent.

Note 2: IRC Section 45 requires the revision of the GDP Implicit Price Deflator used for the purposes of calculating the Inflation Adjustment Factor is the most recent revision of GDP Implicit Price Deflator for the preceding calendar year published by the Department of Commerce before March 15 of the calendar year for which the PTC rate is being determined.

Rocky Mountain Power
Exhibit 13.2
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
Quick Guide: Some Popular BEA Price Indexes

September 2023

Quick Guide: Some Popular BEA Price Indexes



Measures prices for final goods and services that are:

Bought by consumers	Bought by businesses & governments	Produced in U.S.	Imported to U.S.	Exported from U.S.
---------------------	------------------------------------	------------------	------------------	--------------------

PCE Price Index
Personal Consumption Expenditures Price Index



- Closely watched by the Federal Reserve
- Similar to the BLS Consumer Price Index; the formulas and uses differ
- Captures consumers' changing behavior and a wide range of expenses

Core PCE Price Index
PCE Price Index, Excluding Food and Energy



- Closely watched by the Federal Reserve
- Excludes two categories prone to volatile prices that may distort overall trends

Gross Domestic Purchases Price Index



- BEA's featured measure of inflation in the U.S. economy overall

GDP Price Index
Gross Domestic Product Price Index



- Measures only U.S.-produced goods and services

GDP Price Deflator
Gross Domestic Product Implicit Price Deflator



- Closely mirrors the GDP price index, although calculated differently
- Used by some firms to adjust payments in contracts

Rocky Mountain Power
Exhibit 13.3
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
Projections of the 2023 GDP Implicit Price Deflator

September 2023

TABLE I: Representative Projections of the GDP Implicit Price Deflator based on the GDP Price Index

Projection	Projected 2023 Value	Increase as Compared to 2022	
		Value	%
Projected GDP Price Index	132.003	4.779	3.756%
Projected GDP Price Index + Minimum Negative Variance	131.972	4.748	3.732%
Projected GDP Price Index + Maximum Positive Variance	132.040	4.816	3.785%
Projected GDP Price Index + Average Variance	132.005	4.781	3.758%

TABLE 2: Variance Summary

Maximum Negative Variance	(0.031)
Maximum Positive Variance	0.037
Average Variance	0.002

TABLE 3: Historical Price Index Values (2012 =100)

Year	GDP Implicit	GDP	Variance (1)
	Price Deflator	Price Index	
1992	67.282	67.278	0.004
1993	68.877	68.874	0.003
1994	70.347	70.342	0.005
1995	71.823	71.819	0.004
1996	73.138	73.132	0.006
1997	74.399	74.399	0.000
1998	75.236	75.219	0.017
1999	76.296	76.272	0.024
2000	78.025	78.016	0.009
2001	79.783	79.814	(0.031)
2002	81.026	81.013	0.013
2003	82.625	82.635	(0.010)
2004	84.843	84.842	0.001
2005	87.504	87.490	0.014
2006	90.204	90.212	(0.008)
2007	92.642	92.653	(0.011)
2008	94.419	94.397	0.022
2009	95.024	95.019	0.005
2010	96.166	96.164	0.002
2011	98.164	98.157	0.007
2012	100.000	100.000	0.000
2013	101.751	101.769	(0.018)
2014	103.654	103.662	(0.008)
2015	104.691	104.662	0.029
2016	105.740	105.703	0.037
2017	107.749	107.743	0.006
2018	110.339	110.344	(0.005)
2019	112.318	112.303	0.015
2020	113.784	113.814	(0.030)
2021	118.895	118.924	(0.029)
2022	127.224	127.225	(0.001)

(1) Positive variances reflect years for which the GDP Implicit Price Deflator is greater than the GDP Price Index. Negative variances reflect years for which the GDP Implicit Price Deflator is less than the GDP Price Index.

Rocky Mountain Power
Exhibit 13.4
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
Congressional Budget Office 2023 GDP Price Index Forecast

September 2023

This file presents data that supplement CBO's July 2023 report
www.cbo.gov/publication/59258

An Update to the Economic Outlook: 2023 to 2025

Contents

1. July 2023 Baseline Forecast—Data Release (Quarterly)
2. July 2023 Baseline Forecast—Data Release (Calendar Year)
3. July 2023 Baseline Forecast—Data Release (Fiscal Year)

This file presents data that supplement CBO's July 2023 report *Update to the Economic Outlook: 2023 to 2025*.
 www.cbo.gov/publication/59258

July 2023 Baseline Forecast—Data Release (Quarterly)

		Units																								
		2020Q1	2020Q2	2020Q3	2020Q4	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4	
Output																										
Gross Domestic Product (GDP)	Billions of dollars	21538	19637	21362	21705	22314	23047	23550	24349	24741	25249	25724	26138	26486	26723	26934	27139	27373	27624	27892	28198	28520	28840	29158	29474	
	Percentage change, annual rate	-3.1	-30.9	40.1	6.6	11.7	13.8	9.0	14.3	6.6	8.5	7.7	6.6	5.4	3.6	3.2	3.1	3.5	3.7	3.9	4.5	4.6	4.6	4.5	4.4	
Gross National Product (GNP)	Billions of dollars	21794	19806	21562	21867	22511	23193	23718	24531	24929	25456	25885	26290	26593	26838	27044	27239	27464	27704	27965	28265	28584	28904	29225	29546	
	Percentage change, annual rate	-3.0	-31.8	40.5	5.8	12.3	12.7	9.4	14.4	6.7	8.7	6.9	6.4	4.7	3.7	3.1	2.9	3.3	3.6	3.8	4.4	4.6	4.5	4.5	4.5	
Real GDP	Billions of chained (2012) dollars	18990	17379	18744	18924	19216	19544	19673	20006	19924	19895	20055	20183	20246	20318	20348	20361	20409	20479	20559	20669	20794	20918	21040	21159	
	Percentage change, annual rate	-4.6	-29.9	35.3	3.9	6.3	7.0	2.7	7.0	-1.6	-0.6	3.2	2.6	1.3	1.4	0.6	0.3	0.9	1.4	1.6	2.2	2.4	2.4	2.4	2.3	
Real GNP	Billions of chained (2012) dollars	19219	17531	18922	19069	19390	19672	19817	20159	20080	20064	20185	20304	20332	20410	20435	20441	20481	20543	20617	20723	20846	20969	21093	21215	
	Percentage change, annual rate	-4.6	-30.8	35.7	3.1	6.9	5.9	3.0	7.1	-1.6	-0.3	2.4	2.4	0.6	1.5	0.5	0.1	0.8	1.2	1.5	2.1	2.4	2.4	2.4	2.3	
Real Gross Value Added: Nonfarm Business	Billions of chained (2012) dollars	14494	13014	14334	14521	14819	15138	15240	15576	15479	15431	15569	15699	15757	15776	15778	15817	15879	15952	16055	16174	16292	16408	16520		
	Percentage change, annual rate	-6.7	-35.0	47.2	5.3	8.5	8.9	2.7	9.1	-2.5	-1.2	3.6	2.9	0.5	1.5	0.5	0.0	1.0	1.6	1.8	2.6	3.0	2.9	2.9	2.8	
Potential GDP and Its Components																										
Potential GDP	Billions of dollars	21931	21942	22213	22449	22831	23298	23771	24290	24907	25577	25969	26335	26714	26979	27273	27582	27875	28154	28438	28720	28999	29278	29558	29843	
	Percentage change, annual rate	3.5	0.2	5.0	4.3	7.0	8.4	8.4	9.0	10.5	11.2	6.3	5.8	5.9	4.0	4.4	4.6	4.3	4.1	4.1	4.0	3.9	3.9	3.9	3.9	
Real Potential GDP	Billions of chained (2012) dollars	19337	19419	19490	19573	19662	19757	19857	19958	20058	20154	20246	20334	20421	20512	20604	20693	20783	20872	20962	21052	21144	21236	21329	21423	
	Percentage change, annual rate	1.9	1.7	1.5	1.7	1.8	2.0	2.0	2.1	2.0	1.9	1.8	1.8	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	
Potential Labor Force	Millions	164	164	164	165	165	165	165	165	166	166	166	166	166	166	166	166	166	166	167	167	167	167	168	168	
	Percentage change, annual rate	0.2	0.2	0.2	0.2	0.3	0.5	0.6	0.5	0.4	0.2	0.2	0.1	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	
Potential Labor Force Productivity	Ratio of potential GDP to potential labor force	117.7	118.1	118.5	118.9	119.4	119.8	120.2	120.7	121.1	121.6	122.1	122.6	123.0	123.5	124.0	124.4	124.8	125.3	125.7	126.1	126.4	126.8	127.2	127.6	
	Percentage change, annual rate	1.6	1.5	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.3	1.3	
Potential Labor Force Participation Rate	Percent	63.3	63.3	63.2	63.2	63.1	63.1	63.0	63.0	62.9	62.8	62.8	62.7	62.6	62.6	62.5	62.4	62.4	62.3	62.3	62.2	62.2	62.1	62.1	62.1	
Noncyclical Rate of Unemployment	Percent	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	
Output Gap	Percentage of Potential GDP	-1.8	-10.5	-3.8	-3.3	-2.3	-1.1	-0.9	0.2	-0.7	-1.3	-0.9	-0.7	-0.9	-0.9	-1.2	-1.6	-1.8	-1.9	-1.9	-1.8	-1.7	-1.5	-1.4	-1.2	
Potential GDP and Its Components (Nonfarm Business Sector)																										
Real Potential GDP	Billions of chained (2012) dollars	14902	14978	15043	15118	15197	15282	15371	15461	15549	15636	15719	15801	15881	15966	16047	16129	16209	16290	16372	16454	16537	16620	16705	16791	
	Percentage change, annual rate	2.3	2.0	1.8	2.0	2.1	2.2	2.3	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	
Potential Hours Worked	2012=100	113.9	114.0	114.1	114.3	114.4	114.6	114.8	115.0	115.2	115.3	115.4	115.5	115.5	115.6	115.7	115.9	116.0	116.1	116.2	116.4	116.5	116.7	116.8	116.9	
	Percentage change, annual rate	0.5	0.5	0.4	0.4	0.5	0.6	0.7	0.7	0.6	0.5	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Capital Services Index	2012=100	121.7	122.1	122.7	123.4	124.0	124.7	125.4	126.2	126.9	127.7	128.5	129.3	130.0	130.7	131.4	132.0	132.6	133.2	133.8	134.4	135.0	135.6	136.3	137.0	
	Percentage change, annual rate	2.1	1.3	2.0	2.1	2.2	2.3	2.4	2.4	2.4	2.4	2.5	2.4	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	
Potential Total Factor Productivity	2012=100	106.5	106.8	107.1	107.3	107.6	107.9	108.2	108.5	108.8	109.1	109.4	109.7	110.0	110.3	110.6	110.9	111.2	111.5	111.9	112.2	112.5	112.8	113.1	113.4	
	Percentage change, annual rate	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Potential Labor Productivity	Ratio of potential GDP to potential hours worked in the NFB sector	68.3	68.5	68.8	69.0	69.3	69.6	69.9	70.1	70.4	70.7	71.1	71.4	71.7	72.0	72.3	72.6	72.9	73.2	73.5	73.8	74.0	74.3	74.6	74.9	
	Percentage change, annual rate	1.7	1.6	1.3	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.8	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	
Capital Share of Income	Ratio	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Prices																										
Price Index, Personal Consumption Expenditures (PCE)	2012=100	110.9	110.4	111.4	111.8	113.1	114.8	116.4	118.2	120.3	122.5	123.8	124.9	126.2	127.1	128.1	129.0	129.9	130.7	131.5	132.3	133.1	133.8	134.6	135.3	
	Percentage change, annual rate	1.5	-1.8	3.4	1.6	4.5	6.4	5.6	7.3	4.3	3.7	4.2	3.0	3.0	3.1	2.8	2.5	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	
Price Index, PCE, Excluding food and energy	2012=100	113.1	112.8	113.7	114.2	115.1	116.8	118.2	119.6	121.2	122.6	124.0	125.3	126.9	128.2	129.4	130.4	131.4	132.4	133.3	134.1	135.0	135.8	136.6	137.4	
	Percentage change, annual rate	1.9	-1.0	3.2	1.5	3.2	6.0	4.8	4.8	5.6	4.7	4.7	4.4	5.0	4.3	3.7	3.4	3.1	2.9	2.7	2.6	2.5	2.5	2.4	2.4	
Consumer Price Index, All Urban Consumers (CPI-U)	1982=84=100	258.8	256.3	259.2	261.0	263.7	268.6	272.9	278.7	284.9	291.5	295.5	298.5	301.3	303.4	305.9	308.4	310.7	312.7	314.7	316.6	318.4	320.1	321.8	323.5	
	Percentage change, annual rate	1.4	-3.8	4.6	2.8	4.2	7.5	6.6	8.8	9.2	9.7	5.5	4.2	3.8	2.8	3.2	3.3	3.0	2.5	2.6	2.5	2.3	2.2	2.1	2.1	
CPI-U, Excluding Food and Energy	1982=84=100	267.0	265.8	268.3	269.8	270.9	275.6	279.1	283.4	288.0	292.2	296.6	300.4	304.0	307.6	310.8	313.7	316.4	318.8	321.0	323.1	325.1	327.0	328.9	330.7	
	Percentage change, annual rate	2.4	-1.8	3.8	2.3	1.6	7.2	5.1	6.2	6.7	6.0	6.2	5.1	5.0	4.8	4.3	3.8	3.4	3.1	2.8	2.6	2.5	2.4	2.3	2.3	
Chained CPI-U	Dec 1999=100	145.0	144.3	146.1	146.3	147.9	151.1	153.4	155.4	158.9	163.7	166.0	166.9	168.7	170.6	171.6	172.0	173.3	175.2	175.9	176.0	177.0	178.8	179.4	179.3	
	Percentage change, annual rate	1.4	-1.7	5.1	0.5	4.3	8.8	6.2	5.5	9.1	12.6	6.0	2.1	4.4	4.7	2.3	1.0	3.0	4.4	1.7	0.2	2.3	4.1	1.2	-0.1	
GDP Price Index	2012=100	113.4	113.1	114.0	114.7	116.2	118.0	119.8	121.8	124.2	126.9	129.3	129.5	130.8	131.5	132.4	133.3	134.1	134.9	135.7	136.4	137.1	137.9	138.6	139.3	
	Percentage change, annual rate	1.8	-1.3	3.5	2.5	5.2	6.3	6.2	6.8	8.3	9.0	4.4	3.9	4.2	2.1	2.6	2.8	2.5	2.3	2.3	2.3	2.1	2.1	2.1	2.1	
Employment Cost Index (ECI), Private Wages and Salaries	December 2005=100	140.3	140.8	141.6	142.8	144.5	145.7	148.0	149.9	151.8	154.0	155.8	157.6	159.5	161.5	163.4	165.3	167.1	168.8	170.5	172.1	173.6	175.2	176.7	178.3	
	Percentage change, annual rate	4.1	1.4	2.3	3.4	4.8	3.4	6.5	5.2	5.2	5.9	4.8	4.7	4.9	5.0	4.9	4.8	4.4	4.1	4.0	3.8	3.7	3.6	3.5	3.5	
Refiners' Acquisition Cost of Crude Oil, Imported	Dollars per barrel	43.3	25.2	39.9	40.8	55.1	64.5	68.3	73.6	89.7	107.8	91.7	78.2	69.4	69.4	71.0	68.1	67.8	67.0	66.5	66.1	65.7	65.4	65.1	64.8	
Price of Crude Oil, West Texas Intermediate (WTI)	Dollars per barrel	45.8	27.8	40.9	42.5	57.8	66.1	70.6	77.5	94.5	108.7</															

Interest Rates																									
10-Year Treasury Note	Percent	1.4	0.7	0.7	0.9	1.3	1.6	1.3	1.5	1.9	2.9	3.1	3.8	3.6	3.6	3.8	4.0	4.1	4.1	4.0	4.0	3.9	3.8	3.7	3.5
3-Month Treasury Bill	Percent	1.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3	1.1	2.7	4.0	4.6	5.1	5.3	5.3	5.2	4.9	4.6	4.2	4.0	3.7	3.5	3.2
Federal Funds Rate	Percent	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	2.2	3.7	4.5	5.0	5.3	5.4	5.4	5.1	4.9	4.5	4.2	4.0	3.7	3.6
Income																									
Income, Personal	Billions of dollars	19034	20479	20019	19797	22096	20916	21005	21162	21320	21578	21970	22241	22493	22934	23238	23573	23872	24088	24313	24541	24812	25044	25292	25551
	Percentage of GDP	88.4	104.3	93.7	91.2	99.0	90.8	89.2	86.9	86.2	85.5	85.4	85.1	84.9	85.8	86.3	86.9	87.2	87.2	87.2	87.0	87.0	86.8	86.7	86.7
Compensation of Employees, Paid	Billions of dollars	11782	11053	11563	11972	12059	12370	12681	13044	13260	13415	13755	13828	13984	14128	14308	14494	14669	14836	15003	15168	15330	15491	15651	15813
	Percentage of GDP	54.7	56.3	54.1	55.2	54.0	53.7	53.8	53.6	53.6	53.1	53.5	52.9	52.8	52.9	53.1	53.4	53.6	53.7	53.8	53.8	53.8	53.7	53.7	53.7
Wages and Salaries	Billions of dollars	9625	8996	9425	9784	9851	10139	10422	10748	10926	11058	11361	11414	11544	11646	11805	11963	12101	12227	12352	12479	12601	12727	12855	12987
	Percentage of GDP	44.7	45.8	44.1	45.1	44.1	44.0	44.3	44.1	44.2	43.8	44.2	43.7	43.6	43.6	43.8	44.1	44.2	44.3	44.3	44.3	44.3	44.2	44.1	44.1
Nonwage Income	Billions of dollars	5510	5270	5518	5536	5506	5687	5738	5788	5826	5934	6017	6119	6190	6550	6657	6758	6821	6862	6905	6945	6983	7033	7099	7183
	Percentage of GDP	25.6	26.8	25.8	25.5	24.7	24.7	24.4	23.8	23.5	23.4	23.4	23.4	23.4	24.5	24.7	24.9	24.9	24.8	24.8	24.6	24.5	24.4	24.3	24.4
Proprietors' income, farm, with IVA & CCAAdj	Billions of dollars	38	25	43	75	26	71	64	44	74	96	96	101	96	100	95	91	87	84	81	78	76	74	73	71
	Percentage of GDP	0.2	0.1	0.2	0.3	0.1	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Proprietors' income, nonfarm, with IVA & CCAAdj	Billions of dollars	1605	1450	1709	1627	1629	1706	1729	1746	1737	1740	1768	1782	1797	1801	1828	1849	1868	1887	1906	1927	1951	1977	2002	2028
	Percentage of GDP	7.5	7.4	8.0	7.5	7.3	7.4	7.3	7.2	7.0	6.9	6.9	6.8	6.8	6.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	6.9	6.9
Income, rental, with CCAAdj	Billions of dollars	723	718	723	716	719	714	723	740	745	776	795	812	842	864	874	878	877	878	878	877	870	872	874	879
	Percentage of GDP	3.4	3.7	3.4	3.3	3.2	3.1	3.1	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.0	3.0	3.0
Interest income, personal	Billions of dollars	1660	1639	1643	1647	1656	1665	1656	1658	1671	1709	1738	1789	1802	2128	2195	2274	2320	2340	2364	2383	2397	2407	2432	2471
	Percentage of GDP	7.7	8.3	7.7	7.6	7.4	7.2	7.0	6.8	6.8	6.8	6.8	6.8	6.8	8.0	8.1	8.4	8.5	8.5	8.5	8.5	8.4	8.4	8.3	8.4
Dividend income, personal	Billions of dollars	1484	1438	1401	1470	1476	1531	1567	1601	1599	1614	1628	1635	1648	1657	1665	1666	1669	1672	1676	1680	1690	1703	1718	1734
	Percentage of GDP	6.9	7.3	6.6	6.8	6.6	6.6	6.7	6.6	6.5	6.4	6.3	6.3	6.2	6.2	6.2	6.1	6.1	6.1	6.0	6.0	5.9	5.9	5.9	5.9
Profits, Corporate, With IVA & CCAAdj	Billions of dollars	2230	2002	2466	2343	2588	2787	2844	2866	2870	3001	3000	2940	2788	2630	2601	2557	2576	2603	2634	2708	2802	2883	2950	3006
	Percentage of GDP	10.4	10.2	11.5	10.8	11.6	12.1	12.1	11.8	11.6	11.9	11.7	11.2	10.5	9.8	9.7	9.4	9.4	9.4	9.4	9.6	9.8	10.0	10.1	10.2
Profits, Corporate, Domestic, With IVA & CCAAdj	Billions of dollars	1736	1597	2041	1947	2153	2407	2432	2443	2433	2539	2553	2471	2337	2174	2141	2090	2099	2116	2137	2201	2285	2355	2412	2456
	Percentage of GDP	8.1	8.1	9.6	9.0	9.6	10.4	10.3	10.0	9.8	10.1	9.9	9.5	8.8	8.1	7.9	7.7	7.7	7.7	7.7	7.8	8.0	8.2	8.3	8.3
Components of GDP (Nominal)																									
Personal Consumption Expenditures	Billions of dollars	14440	13050	14389	14586	15132	15814	16147	16518	16875	17261	17543	17750	18099	18288	18450	18594	18732	18878	19058	19266	19477	19681	19899	20093
	Percentage change, annual rate	-4.8	-33.3	47.8	5.6	15.8	19.3	6.7	9.5	8.9	9.5	6.7	4.8	8.1	4.3	3.6	2.9	3.2	3.1	3.9	4.4	4.5	4.2	4.3	4.2
Gross Private Domestic Investment	Billions of dollars	3738	3161	3743	3929	3902	3943	4109	4499	4671	4610	4579	4670	4577	4654	4668	4670	4685	4730	4780	4846	4921	5007	5088	5168
	Percentage change, annual rate	-4.4	-48.8	96.6	21.4	-2.7	4.3	17.9	43.7	16.2	-5.1	-2.7	8.2	-7.7	6.9	1.2	0.2	1.2	4.0	4.2	5.7	6.3	7.2	6.6	6.4
Nonresidential fixed investment	Billions of dollars	2884	2657	2782	2868	2935	3007	3046	3112	3225	3292	3403	3468	3538	3589	3605	3611	3625	3652	3687	3723	3759	3801	3845	3890
	Percentage change, annual rate	-7.0	-28.0	20.2	13.0	9.6	10.3	5.3	8.9	15.4	8.6	14.2	7.7	8.3	6.0	1.8	0.7	1.5	3.0	3.9	4.0	3.8	4.6	4.7	4.8
Residential fixed investment	Billions of dollars	867	802	925	1010	1070	1096	1118	1147	1189	1172	1105	1041	1023	1024	1035	1043	1047	1055	1069	1087	1110	1134	1158	1183
	Percentage change, annual rate	20.1	-26.8	76.6	42.5	25.7	10.1	8.4	10.9	15.2	-5.3	-21.2	-21.3	-6.7	0.5	4.2	3.4	1.4	3.2	5.2	7.1	8.6	8.9	8.9	8.9
Change in private inventories	Billions of dollars	-14	-298	37	51	-102	-159	-55	240	257	145	71	162	17	41	29	16	13	24	24	36	53	72	85	94
Government Consumption Expenditures and Gross Investment	Billions of dollars	3883	3952	3923	3958	4089	4124	4183	4247	4311	4413	4493	4575	4655	4686	4726	4773	4819	4868	4912	4953	4993	5034	5075	5118
	Percentage change, annual rate	6.6	7.3	-2.9	3.6	13.9	3.5	5.8	6.2	6.2	9.7	7.5	7.1	2.7	3.4	4.1	3.9	4.1	3.6	3.4	3.3	3.3	3.3	3.4	3.4
Federal	Billions of dollars	1456	1560	1525	1541	1620	1608	1596	1613	1613	1623	1657	1694	1740	1748	1760	1774	1786	1803	1817	1830	1841	1854	1867	1882
	Percentage change, annual rate	5.1	31.9	-8.6	4.3	22.1	-3.0	-3.1	4.4	0.1	2.4	6.7	9.2	11.4	1.9	2.7	3.1	2.7	4.0	3.1	2.8	2.5	2.8	2.9	3.1
State and local	Billions of dollars	2427	2392	2398	2417	2468	2516	2588	2634	2698	2790	2836	2882	2915	2938	2966	2999	3034	3065	3095	3123	3152	3180	3208	3237
	Percentage change, annual rate	7.5	-5.7	1.0	3.2	8.9	8.0	11.8	7.3	10.1	14.3	6.7	6.6	4.7	3.1	3.9	4.6	4.7	4.2	3.9	3.7	3.8	3.7	3.5	3.6
Net Exports of Goods and Services	Billions of dollars	-523	-526	-692	-769	-809	-834	-889	-915	-1117	-1036	-891	-857	-844	-905	-910	-888	-863	-853	-858	-867	-872	-882	-894	-905
Exports	Billions of dollars	2413	1818	2107	2258	2369	2503	2553	2733	2811	3039	3085	2988	3026	3015	3022	3041	3059	3080	3099	3118	3140	3167	3196	3227
	Percentage change, annual rate	-17.1	-67.8	80.5	32.0	21.2	24.6	8.3	31.3	11.9	36.5	3.5	-9.6	5.1	-1.4	0.9	2.5	2.4	2.8	2.5	2.5	2.9	3.4	3.7	3.9
Imports	Billions of dollars	2935	2344	2799	3026	3178	3338	3443	3648	3928	4074	3956	3845	3870	3921	3931	3929	3922	3933	3957	3985	4012	4049	4090	4132
	Percentage change, annual rate	-13.4	-59.4	103.4	36.7	21.5	21.7	13.2	26.1	34.5	15.8	-11.1	-10.7	2.6	5.3	1.1	-0.2	-0.7	1.1	2.4	2.9	2.8	3.7	4.1	4.2
Memorandum: Balance on Current Account	Billions of dollars	-422	-525	-665	-758	-779	-844	-915	-908	-1110	-1021	-887	-955	-1015	-1026	-1016	-1002	-1004	-1019	-1033	-1043	-1057	-1068	-1073	
Components of GDP (Real)																									
Personal Consumption Expenditures	Billions of chained (2012) dollars	13017	11817	12922	13047	13387	13774	13874	13982	14028	14100	14179	14215	14347	14387	14474	14403	14417	14441	14488	14558	14634	14705	14780	14849
	Percentage change, annual rate	-6.2	-32.1	43.0	3.9	10.8	12.1	3.0	3.1	1.3	2.0	2.3	1.0	3.8	1.1	0.6	-0.1	0.4	0.7	1.3	1.9	2.1	1.9	2.0	1.9
Gross Private Domestic Investment	Billions of chained (2012) dollars	3410	2884	3394	3538	3499	3497	3594	3842	3993	3747	3654	3694	3593	3641	3636	3623	3620	3643	3669	3709	3755	3810	3860	3909
	Percentage change, annual rate	-5.1	-48.8	91.8	18.0	-5.4	0.9	10.4	32.0	5.4	-14.1	-9.6	-4.5	-11.5	6.6	-0.5	-1.5	-0.3	2.5	2.9	4.4	5.1	6.0	5.4	5.1
Nonresidential fixed investment	Billions of chained (2012) dollars	2761	2531	2650	2723	2781	2848	2852	2860	2915	2916	2960	2989	2999	3030	3031	3025	3026	3039	3060	3083	3104	3132	3161	3191
	Percentage change, annual rate	-8.2	-29.4	20.3	11.5	8.9	9.9	0.6	1.1	7.9	0.1	6.2	4.0	1.4	4.2	0.1	-0.8	0.2	1.7	2.8	3.0				

This file presents data that supplement CBO's July 2023 report *An Update to the Economic Outlook: 2023 to 2025*.
www.cbo.gov/publication/59258

July 2023 Baseline Forecast—Data Release (Calendar Year)

	Units	2020	2021	2022	2023	2024	2025
Output							
Gross Domestic Product (GDP)	Billions of dollars	21061	23315	25463	26821	27772	28998
	Percentage change, annual rate	-1.5	10.7	9.2	5.3	3.5	4.4
Gross National Product (GNP)	Billions of dollars	21258	23488	25640	26929	27849	29065
	Percentage change, annual rate	-1.9	10.5	9.2	5.0	3.4	4.4
Real GDP	Billions of chained (2012) dollars	18509	19610	20014	20318	20529	20978
	Percentage change, annual rate	-2.8	5.9	2.1	1.5	1.0	2.2
Real GNP	Billions of chained (2012) dollars	18685	19759	20158	20405	20591	21031
	Percentage change, annual rate	-3.1	5.7	2.0	1.2	0.9	2.1
Real Gross Value Added: Nonfarm Business	Billions of chained (2012) dollars	14091	15193	15540	15753	15926	16348
	Percentage change, annual rate	-3.5	7.8	2.3	1.4	1.1	2.7
Potential GDP and Its Components							
Potential GDP	Billions of dollars	22134	23548	25697	27137	28297	29419
	Percentage change, annual rate	3.1	6.4	9.1	5.6	4.3	4.0
Real Potential GDP	Billions of chained (2012) dollars	19455	19808	20198	20557	20917	21283
	Percentage change, annual rate	1.8	1.8	2.0	1.8	1.7	1.7
Potential Labor Force	Millions	164	165	166	166	167	168
	Percentage change, annual rate	0.2	0.4	0.4	0.2	0.4	0.5
Potential Labor Force Productivity	Ratio of potential GDP to potential labor force	118.3	120.0	121.8	123.7	125.5	127.0
	Percentage change, annual rate	1.6	1.5	1.5	1.6	1.4	1.3
Potential Labor Force Participation Rate	Percent	63.2	63.0	62.8	62.5	62.3	62.1
Noncyclical Rate of Unemployment	Percent	4.5	4.5	4.4	4.4	4.4	4.4
Output Gap	Percentage of Potential GDP	-4.9	-1.0	-0.9	-1.2	-1.9	-1.4
Potential GDP and Its Components (Nonfarm Business Sector)							
Real Potential GDP	Billions of chained (2012) dollars	15010	15328	15676	16006	16331	16663
	Percentage change, annual rate	2.2	2.1	2.3	2.1	2.0	2.0
Potential Hours Worked	2012=100	114.1	114.7	115.3	115.7	116.2	116.7
	Percentage change, annual rate	0.5	0.5	0.6	0.3	0.4	0.5
Capital Services Index	2012=100	122.5	125.1	128.1	131.0	133.5	136.0
	Percentage change, annual rate	2.2	2.1	2.4	2.3	1.9	1.9
Potential Total Factor Productivity	2012=100	106.9	108.1	109.3	110.5	111.7	112.9
	Percentage change, annual rate	1.0	1.1	1.1	1.1	1.1	1.1
Potential Labor Productivity	Ratio of potential GDP to potential hours worked in the NFB sector	68.6	69.7	70.9	72.2	73.3	74.5
	Percentage change, annual rate	1.7	1.6	1.7	1.8	1.6	1.5
Capital Share of Income	Ratio	0.3	0.3	0.3	0.3	0.3	0.3
Prices							
Price Index, Personal Consumption Expenditures (PCE)	2012=100	111.1	115.6	122.9	127.6	131.1	134.2
	Percentage change, annual rate	1.1	4.0	6.3	3.9	2.8	2.3
Price Index, PCE, Excluding food and energy	2012=100	113.5	117.4	123.3	128.7	132.8	136.2
	Percentage change, annual rate	1.3	3.5	5.0	4.4	3.2	2.6
Consumer Price Index, All Urban Consumers (CPI-U)	1982-84=100	258.9	271.0	292.6	304.8	313.7	321.0
	Percentage change, annual rate	1.3	4.7	8.0	4.2	2.9	2.3
CPI-U, Excluding Food and Energy	1982-84=100	267.7	277.3	294.3	309.0	319.8	327.9
	Percentage change, annual rate	1.7	3.6	6.1	5.0	3.5	2.5
Chained CPI-U	Dec 1999=100	145.4	151.9	163.9	170.7	175.1	178.6
	Percentage change, annual rate	1.1	4.5	7.8	4.2	2.6	2.0
GDP Price Index	2012=100	113.8	118.9	127.2	132.0	135.3	138.2
	Percentage change, annual rate	1.3	4.5	7.0	3.8	2.5	2.2
Employment Cost Index (ECI), Private Wages and Salaries	December 2005=100	141.4	147.0	154.8	162.4	169.6	176.0
	Percentage change, annual rate	2.9	4.0	5.3	4.9	4.4	3.7
Refiners' Acquisition Cost of Crude Oil, Imported	Dollars per barrel	37.3	65.4	91.9	69.5	66.8	65.2
Price of Crude Oil, West Texas Intermediate (WTI)	Dollars per barrel	39.2	68.0	94.8	74.5	70.1	68.1
Price of Natural Gas, Henry Hub	Dollars per MMBtu	2.0	3.9	6.4	2.5	3.2	3.8
FHFA House Price Index, Purchase Only	1991Q1=100	288.6	336.9	384.3	389.7	393.2	401.8
Nominal Exchange Rate Index (Export Weighted)	1970Q1=100	211.5	202.3	215.3	213.3	208.8	205.2
Labor							
Unemployment Rate, Civilian, 16 Years or Older	Percent	8.1	5.4	3.6	3.7	4.5	4.6
Labor Force, Civilian, 16 Years or Older	Millions	161	161	164	166	167	167
	Percentage change, annual rate	-1.7	0.3	1.9	1.3	0.3	0.3
Labor Force Participation Rate, 16 Years or Older	Percent	61.8	61.7	62.2	62.5	62.3	62.1
Employment, Civilian, 16 Years or Older (Household Survey)	Millions	148	153	158	160	159	160
	Percentage change, annual rate	-6.2	3.2	3.7	1.2	-0.5	0.3
Employment, Total Nonfarm (Establishment Survey)	Millions	142	146	153	156	157	157
	Percentage change, annual rate	-5.8	2.9	4.3	2.3	0.4	-0.1
Labor Productivity (Nonfarm Business Sector)	2012=100	112.6	115.0	113.1	113.0	114.6	118.3
	Percentage change, annual rate	4.4	2.2	-1.7	-0.1	1.5	3.2
Hours of All Persons (Nonfarm Business Sector)	2012=100	103.9	109.5	114.0	115.7	115.2	114.6
	Percentage change, annual rate	-7.5	5.5	4.0	1.5	-0.4	-0.5
Population							
Noninstitutional Population, Civilian, 16 Years or Older	Millions	260	261	264	266	268	270
	Percentage change, annual rate	0.4	0.4	1.0	0.8	0.6	0.8
Households (Total Occupied Housing Units)	Millions	126	127	128	130	130	131
Interest Rates							
10-Year Treasury Note	Percent	0.9	1.4	3.0	3.8	4.0	3.7
3-Month Treasury Bill	Percent	0.4	0.0	2.0	5.1	4.7	3.6
Federal Funds Rate	Percent	0.4	0.1	1.7	5.0	5.0	3.9

Income							
Income, Personal	Billions of dollars	19832	21295	21777	23059	24204	25175
	Percentage of GDP	94.2	91.3	85.5	86.0	87.2	86.8
Compensation of Employees, Paid	Billions of dollars	11593	12539	13565	14228	14919	15571
	Percentage of GDP	55.0	53.8	53.3	53.0	53.7	53.7
Wages and Salaries	Billions of dollars	9457	10290	11190	11739	12290	12793
	Percentage of GDP	44.9	44.1	43.9	43.8	44.3	44.1
Nonwage Income	Billions of dollars	5458	5680	5974	6539	6883	7075
	Percentage of GDP	25.9	24.4	23.5	24.4	24.8	24.4
Proprietors' income, farm, with IVA & CCAAdj	Billions of dollars	45	51	92	96	82	74
	Percentage of GDP	0.2	0.2	0.4	0.4	0.3	0.3
Proprietors' income, nonfarm, with IVA & CCAAdj	Billions of dollars	1598	1702	1757	1819	1897	1990
	Percentage of GDP	7.6	7.3	6.9	6.8	6.8	6.9
Income, rental, with CCAAdj	Billions of dollars	720	724	782	864	878	874
	Percentage of GDP	3.4	3.1	3.1	3.2	3.2	3.0
Interest income, personal	Billions of dollars	1647	1659	1727	2101	2352	2427
	Percentage of GDP	7.8	7.1	6.8	7.8	8.5	8.4
Dividend income, personal	Billions of dollars	1448	1544	1617	1659	1674	1711
	Percentage of GDP	6.9	6.6	6.4	6.2	6.0	5.9
Profits, Corporate, With IVA & CCAAdj	Billions of dollars	2260	2771	2953	2644	2630	2910
	Percentage of GDP	10.7	11.9	11.6	9.9	9.5	10.0
Profits, Corporate, Domestic, With IVA & CCAAdj	Billions of dollars	1831	2359	2499	2185	2138	2377
	Percentage of GDP	8.7	10.1	9.8	8.1	7.7	8.2
Components of GDP (Nominal)							
Personal Consumption Expenditures	Billions of dollars	14116	15903	17357	18355	18983	19785
	Percentage change, annual rate	-1.9	12.7	9.1	5.8	3.4	4.2
Gross Private Domestic Investment	Billions of dollars	3643	4114	4633	4642	4760	5046
	Percentage change, annual rate	-4.3	12.9	12.6	0.2	2.5	6.0
Nonresidential fixed investment	Billions of dollars	2798	3025	3347	3586	3672	3824
	Percentage change, annual rate	-4.2	8.1	10.6	7.1	2.4	4.1
Residential fixed investment	Billions of dollars	901	1108	1127	1031	1065	1146
	Percentage change, annual rate	10.8	23.0	1.7	-8.5	3.2	7.7
Change in private inventories	Billions of dollars	-56	-19	159	26	24	76
Government Consumption Expenditures and Gross Investment	Billions of dollars	3929	4161	4448	4710	4888	5055
	Percentage change, annual rate	4.5	5.9	6.9	5.9	3.8	3.4
Federal	Billions of dollars	1521	1609	1647	1756	1809	1861
	Percentage change, annual rate	7.4	5.8	2.3	6.6	3.0	2.9
State and local	Billions of dollars	2408	2552	2801	2954	3079	3194
	Percentage change, annual rate	2.7	5.9	9.8	5.5	4.2	3.7
Net Exports of Goods and Services	Billions of dollars	-628	-862	-975	-887	-860	-888
Exports	Billions of dollars	2149	2540	2976	3026	3089	3182
	Percentage change, annual rate	-15.4	18.2	17.2	1.7	2.1	3.0
Imports	Billions of dollars	2776	3401	3951	3913	3949	4071
	Percentage change, annual rate	-10.9	22.5	16.2	-1.0	0.9	3.1
Memorandum: Balance on Current Account	Billions of dollars	-593	-861	-995	-1003	-1015	-1060
Components of GDP (Real)							
Personal Consumption Expenditures	Billions of chained (2012) dollars	12701	13754	14130	14386	14476	14742
	Percentage change, annual rate	-3.0	8.3	2.7	1.8	0.6	1.8
Gross Private Domestic Investment	Billions of chained (2012) dollars	3307	3603	3747	3621	3660	3834
	Percentage change, annual rate	-5.3	9.0	4.0	-3.4	1.1	4.7
Nonresidential fixed investment	Billions of chained (2012) dollars	2666	2835	2945	3021	3052	3147
	Percentage change, annual rate	-4.9	6.4	3.9	2.6	1.0	3.1
Residential fixed investment	Billions of chained (2012) dollars	650	719	643	572	579	611
	Percentage change, annual rate	7.2	10.7	-10.6	-11.1	1.2	5.5
Change in private inventories	Billions of chained (2012) dollars	-55	-19	125	19	20	62
Government Consumption Expenditures and Gross Investment	Billions of chained (2012) dollars	3407	3426	3407	3492	3520	3542
	Percentage change, annual rate	2.6	0.6	-0.6	2.5	0.8	0.6
Federal	Billions of chained (2012) dollars	1359	1391	1355	1394	1396	1400
	Percentage change, annual rate	6.2	2.3	-2.5	2.9	0.1	0.3
State and local	Billions of chained (2012) dollars	2049	2038	2051	2099	2124	2141
	Percentage change, annual rate	0.4	-0.5	0.7	2.3	1.2	0.8
Net Exports of Goods and Services	Billions of chained (2012) dollars	-923	-1233	-1357	-1256	-1189	-1199
Exports	Billions of chained (2012) dollars	2232	2367	2534	2613	2651	2716
	Percentage change, annual rate	-13.2	6.1	7.1	3.1	1.4	2.5
Imports	Billions of chained (2012) dollars	3154	3600	3891	3869	3839	3914
	Percentage change, annual rate	-9.0	14.1	8.1	-0.6	-0.8	1.9

Source: Congressional Budget Office.

Actual values reflect data released as of June 22, 2023. Forecast values are shaded.

For details on the calculation of potential output, see Robert Shackleton, *Estimating and Projecting Potential Output Using CBO's Forecasting Growth Model*, Working Paper 2018-03 (Congressional Budget Office, February 2018), www.cbo.gov/publicati

CCAAdj = capital consumption adjustment; FHFA = Federal Housing Finance Agency; IVA = inventory valuation adjustment; MMBtu = 1 million British thermal units; NFB = nonfarm business.

This file presents data that supplement CBO's July 2023 report *An Update to the Economic Outlook: 2023 to 2025*.
www.cbo.gov/publication/59258

July 2023 Baseline Forecast—Data Release (Fiscal Year)

	Units	2020	2021	2022	2023	2024	2025
Output							
Gross Domestic Product (GDP)	Billions of dollars	21061	22654	25016	26571	27507	28679
	Percentage change, annual rate	-0.5	7.6	10.4	6.2	3.5	4.3
Gross National Product (GNP)	Billions of dollars	21281	22822	25200	26691	27593	28745
	Percentage change, annual rate	-0.8	7.2	10.4	5.9	3.4	4.2
Real GDP	Billions of chained (2012) dollars	18582	19339	19970	20274	20452	20856
	Percentage change, annual rate	-1.8	4.1	3.3	1.5	0.9	2.0
Real GNP	Billions of chained (2012) dollars	18779	19487	20122	20370	20521	20908
	Percentage change, annual rate	-2.0	3.8	3.3	1.2	0.7	1.9
Real Gross Value Added: Nonfarm Business	Billions of chained (2012) dollars	14147	14930	15514	15728	15857	16232
	Percentage change, annual rate	-2.4	5.5	3.9	1.4	0.8	2.4
Potential GDP and Its Components							
Potential GDP	Billions of dollars	21957	23087	25186	26825	28012	29139
	Percentage change, annual rate	3.2	5.1	9.1	6.5	4.4	4.0
Real Potential GDP	Billions of chained (2012) dollars	19373	19712	20104	20468	20827	21190
	Percentage change, annual rate	1.9	1.7	2.0	1.8	1.8	1.7
Potential Labor Force	Millions	164	165	166	166	167	167
	Percentage change, annual rate	0.2	0.3	0.5	0.2	0.3	0.5
Potential Labor Force Productivity	Ratio of potential GDP to potential labor force	117.9	119.6	121.4	123.3	125.0	126.6
	Percentage change, annual rate	1.6	1.5	1.5	1.6	1.4	1.3
Potential Labor Force Participation Rate	Percent	63.3	63.1	62.9	62.6	62.3	62.2
Noncyclical Rate of Unemployment	Percent	4.5	4.5	4.4	4.4	4.4	4.4
Output Gap	Percentage of Potential GDP	-4.1	-1.9	-0.7	-0.9	-1.8	-1.6
Potential GDP and Its Components (Nonfarm Business Sector)							
Real Potential GDP	Billions of chained (2012) dollars	14936	15242	15591	15924	16250	16579
	Percentage change, annual rate	2.3	2.1	2.3	2.1	2.0	2.0
Potential Hours Worked	2012=100	114.0	114.5	115.2	115.6	116.0	116.6
	Percentage change, annual rate	0.5	0.5	0.6	0.3	0.4	0.5
Capital Services Index	2012=100	121.9	124.4	127.3	130.4	132.9	135.3
	Percentage change, annual rate	2.4	2.0	2.4	2.4	1.9	1.8
Potential Total Factor Productivity	2012=100	106.6	107.8	109.0	110.2	111.4	112.6
	Percentage change, annual rate	1.0	1.1	1.1	1.1	1.1	1.1
Potential Labor Productivity	Ratio of potential GDP to potential hours worked in the NFB sector	68.4	69.4	70.6	71.9	73.1	74.2
	Percentage change, annual rate	1.7	1.6	1.7	1.8	1.7	1.5
Capital Share of Income	Ratio	0.3	0.3	0.3	0.3	0.3	0.3
Prices							
Price Index, Personal Consumption Expenditures (PCE)	2012=100	110.8	114.0	121.2	126.6	130.3	133.5
	Percentage change, annual rate	1.2	2.9	6.3	4.4	3.0	2.4
Price Index, PCE, Excluding food and energy	2012=100	113.1	116.0	121.8	127.4	131.9	135.4
	Percentage change, annual rate	1.4	2.6	5.0	4.6	3.5	2.6
Consumer Price Index, All Urban Consumers (CPI-U)	1982-84=100	258.1	266.6	287.7	302.3	311.6	319.2
	Percentage change, annual rate	1.5	3.3	7.9	5.1	3.1	2.4
CPI-U, Excluding Food and Energy	1982-84=100	266.6	273.9	290.1	305.7	317.5	326.0
	Percentage change, annual rate	1.9	2.7	5.9	5.4	3.9	2.7
Chained CPI-U	Dec 1999=100	145.0	149.7	161.0	169.5	174.1	177.8
	Percentage change, annual rate	1.1	3.2	7.6	5.2	2.8	2.1
GDP Price Index	2012=100	113.4	117.2	125.3	131.1	134.5	137.5
	Percentage change, annual rate	1.3	3.4	6.9	4.6	2.6	2.2
Employment Cost Index (ECI), Private Wages and Salaries	December 2005=100	140.4	145.3	152.9	160.5	167.9	174.4
	Percentage change, annual rate	3.0	3.5	5.2	5.0	4.6	3.8
Refiners' Acquisition Cost of Crude Oil, Imported	Dollars per barrel	41.0	57.2	90.7	72.0	67.4	65.5
Price of Crude Oil, West Texas Intermediate (WTI)	Dollars per barrel	42.9	59.2	93.5	77.3	70.6	68.5
Price of Natural Gas, Henry Hub	Dollars per MMBtu	2.0	3.4	6.2	3.3	3.0	3.7
FHFA House Price Index, Purchase Only	1991Q1=100	280.9	323.3	376.8	389.4	391.5	399.4
Nominal Exchange Rate Index (Export Weighted)	1970Q1=100	212.4	201.9	211.3	215.9	209.7	206.4
Labor							
Unemployment Rate, Civilian, 16 Years or Older	Percent	7.3	6.0	3.8	3.6	4.4	4.6
Labor Force, Civilian, 16 Years or Older	Millions	162	161	164	166	167	167
	Percentage change, annual rate	-0.9	-0.5	1.7	1.4	0.5	0.3
Labor Force Participation Rate, 16 Years or Older	Percent	62.2	61.6	62.2	62.5	62.4	62.1
Employment, Civilian, 16 Years or Older (Household Survey)	Millions	150	151	157	160	159	160
	Percentage change, annual rate	-4.5	0.8	4.1	1.6	-0.3	0.1
Employment, Total Nonfarm (Establishment Survey)	Millions	144	145	151	156	157	157
	Percentage change, annual rate	-4.0	0.1	4.6	2.8	0.8	-0.1
Labor Productivity (Nonfarm Business Sector)	2012=100	111.3	114.6	113.6	113.0	114.0	117.4
	Percentage change, annual rate	3.9	3.0	-0.9	-0.5	0.8	3.0
Hours of All Persons (Nonfarm Business Sector)	2012=100	105.5	108.0	113.3	115.4	115.4	114.7
	Percentage change, annual rate	-5.9	2.3	4.9	1.9	0.0	-0.6
Population							
Noninstitutional Population, Civilian, 16 Years or Older	Millions	260	261	263	266	267	269
	Percentage change, annual rate	0.5	0.4	0.8	0.9	0.6	0.8
Households (Total Occupied Housing Units)	Millions	125	126	128	130	130	131

Interest Rates								
10-Year Treasury Note	Percent	1.1	1.3	2.4	3.7	4.0	3.8	
3-Month Treasury Bill	Percent	0.7	0.1	1.0	4.8	5.0	3.8	
Federal Funds Rate	Percent	0.8	0.1	0.8	4.6	5.2	4.1	
Income								
Income, Personal	Billions of dollars	19594	20954	21507	22726	23961	24922	
	Percentage of GDP	93.0	92.5	86.0	85.5	87.1	86.9	
Compensation of Employees, Paid	Billions of dollars	11504	12271	13369	14062	14750	15410	
	Percentage of GDP	54.6	54.2	53.4	52.9	53.6	53.7	
Wages and Salaries	Billions of dollars	9380	10049	11023	11602	12161	12666	
	Percentage of GDP	44.5	44.4	44.1	43.7	44.2	44.2	
Nonwage Income	Billions of dollars	5449	5617	5891	6379	6836	7015	
	Percentage of GDP	25.9	24.8	23.6	24.0	24.9	24.5	
Proprietors' income, farm, with IVA & CCAAdj	Billions of dollars	36	59	78	98	86	75	
	Percentage of GDP	0.2	0.3	0.3	0.4	0.3	0.3	
Proprietors' income, nonfarm, with IVA & CCAAdj	Billions of dollars	1589	1673	1748	1802	1878	1964	
	Percentage of GDP	7.5	7.4	7.0	6.8	6.8	6.8	
Income, rental, with CCAAdj	Billions of dollars	718	718	764	848	878	873	
	Percentage of GDP	3.4	3.2	3.1	3.2	3.2	3.0	
Interest income, personal	Billions of dollars	1652	1656	1694	1980	2325	2405	
	Percentage of GDP	7.8	7.3	6.8	7.5	8.5	8.4	
Dividend income, personal	Billions of dollars	1454	1511	1609	1651	1671	1698	
	Percentage of GDP	6.9	6.7	6.4	6.2	6.1	5.9	
Profits, Corporate, With IVA & CCAAdj	Billions of dollars	2283	2640	2934	2740	2593	2836	
	Percentage of GDP	10.8	11.7	11.7	10.3	9.4	9.9	
Profits, Corporate, Domestic, With IVA & CCAAdj	Billions of dollars	1827	2235	2492	2281	2110	2313	
	Percentage of GDP	8.7	9.9	10.0	8.6	7.7	8.1	
Components of GDP (Nominal)								
Personal Consumption Expenditures	Billions of dollars	14124	15420	17049	18147	18813	19578	
	Percentage change, annual rate	-1.0	9.2	10.6	6.4	3.7	4.1	
Gross Private Domestic Investment	Billions of dollars	3606	3971	4590	4642	4716	4966	
	Percentage change, annual rate	-4.9	10.1	15.6	1.1	1.6	5.3	
Nonresidential fixed investment	Billions of dollars	2815	2964	3258	3550	3644	3782	
	Percentage change, annual rate	-2.8	5.3	9.9	9.0	2.6	3.8	
Residential fixed investment	Billions of dollars	855	1073	1153	1030	1054	1122	
	Percentage change, annual rate	6.3	25.5	7.5	-10.7	2.2	6.5	
Change in private inventories	Billions of dollars	-65	-66	178	62	19	62	
Government Consumption Expenditures and Gross Investment	Billions of dollars	3895	4089	4366	4660	4843	5014	
	Percentage change, annual rate	4.9	5.0	6.8	6.7	3.9	3.5	
Federal	Billions of dollars	1495	1591	1626	1736	1795	1848	
	Percentage change, annual rate	6.9	6.5	2.2	6.7	3.4	3.0	
State and local	Billions of dollars	2400	2497	2740	2925	3048	3166	
	Percentage change, annual rate	3.7	4.0	9.7	6.8	4.2	3.9	
Net Exports of Goods and Services	Billions of dollars	-564	-825	-990	-879	-865	-879	
Exports	Billions of dollars	2216	2421	2912	3013	3070	3155	
	Percentage change, annual rate	-12.7	9.2	20.3	3.5	1.9	2.8	
Imports	Billions of dollars	2780	3246	3902	3892	3935	4034	
	Percentage change, annual rate	-11.7	16.8	20.2	-0.2	1.1	2.5	
Memorandum: Balance on Current Account	Billions of dollars	-506	-824	-1000	-971	-1010	-1050	
Components of GDP (Real)								
Personal Consumption Expenditures	Billions of chained (2012) dollars	12746	13520	14072	14339	14437	14669	
	Percentage change, annual rate	-2.1	6.1	4.1	1.9	0.7	1.6	
Gross Private Domestic Investment	Billions of chained (2012) dollars	3286	3527	3784	3639	3638	3784	
	Percentage change, annual rate	-5.9	7.3	7.3	-3.8	0.0	4.0	
Nonresidential fixed investment	Billions of chained (2012) dollars	2690	2801	2913	3012	3038	3120	
	Percentage change, annual rate	-3.5	4.1	4.0	3.4	0.8	2.7	
Residential fixed investment	Billions of chained (2012) dollars	625	720	677	572	576	601	
	Percentage change, annual rate	3.6	15.2	-6.0	-15.4	0.6	4.4	
Change in private inventories	Billions of chained (2012) dollars	-68	-54	140	50	16	50	
Government Consumption Expenditures and Gross Investment	Billions of chained (2012) dollars	3398	3422	3399	3477	3513	3537	
	Percentage change, annual rate	3.3	0.7	-0.7	2.3	1.0	0.7	
Federal	Billions of chained (2012) dollars	1341	1389	1355	1389	1394	1399	
	Percentage change, annual rate	5.9	3.6	-2.5	2.5	0.4	0.3	
State and local	Billions of chained (2012) dollars	2057	2035	2044	2089	2119	2137	
	Percentage change, annual rate	1.8	-1.1	0.5	2.2	1.4	0.9	
Net Exports of Goods and Services	Billions of chained (2012) dollars	-855	-1185	-1371	-1256	-1201	-1193	
Exports	Billions of chained (2012) dollars	2296	2329	2506	2604	2637	2697	
	Percentage change, annual rate	-10.6	1.4	7.6	3.9	1.3	2.3	
Imports	Billions of chained (2012) dollars	3151	3514	3877	3860	3838	3890	
	Percentage change, annual rate	-9.5	11.5	10.3	-0.4	-0.6	1.4	

Source: Congressional Budget Office.

Actual values reflect data released as of June 22, 2023. Forecast values are shaded.

For details on the calculation of potential output, see Robert Shackleton, *Estimating and Projecting Potential Output Using CBO's Forecasting Growth Model*, Working Paper 2018-03 (Congressional Budget Office, February 2018), www.cbo.gov/publication/53558.

CCAAdj = capital consumption adjustment; FHFA = Federal Housing Finance Agency; IVA = inventory valuation adjustment; MMBtu = 1 million British thermal units; NFB = nonfarm business.

Rocky Mountain Power
Exhibit 13.5
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
WIEC Response to RMP Data Request 2.2

September 2023

WIEC's Responses to RMP's Second Set of Data Requests
Docket No. 20000-633-ER-23

RMP 2.2: Refer to WIEC Exhibit No. 202, Page 82, Lines 8-10: Please provide calculations supporting the derivation of the stated annualized inflation rates of 6.418% and 6.409%, using the Gross Domestic Product ("GDP") implicit price deflator for calendar years 2021 and 2022, respectively.

RESPONSE:

Please refer to WIEC Exhibit No. 202.8. The referenced values were calculated by comparing the Q4 implicit price deflators of 2021 and 2022 to the previous year. The 2021 value was calculated by dividing 118.37 (the 2021 Q4 implicit price deflator) by 113.63 (the 2020 Q4 implicit price deflator). Similarly, the 2022 value was calculated by dividing 127.21 (the 2022 Q4 implicit price deflator) by 118.37 (the 2021 Q4 implicit price deflator).

Respondent: Bradley G. Mullins

Witness: Bradley G. Mullins

Rocky Mountain Power
Exhibit 13.6
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
WIEC Response to RMP Data Request 2.3

September 2023

WIEC's Responses to RMP's Second Set of Data Requests
Docket No. 20000-633-ER-23

RMP 2.3: Refer to WIEC Exhibit No. 202, Page 82, Lines 13-14: Please provide a workpaper with calculations intact supporting the assertion that “historically Core PCE Inflation has been approximately 1.6% less than the inflation rate measured using the GDP implicit price deflator.”

RESPONSE:

As noted in the federal reserve release identified in the footnote of the referenced sentence, actual Core PCE inflation was 4.7% and 4.8% in 2021 and 2022, respectively. The approximate 1.6% value was calculated by comparing those actual values to the 6.418% and 6.409% GDP Implicit Price deflator inflation for 2021 and 2022, respectively, as identified in the sentence preceding the referenced sentence. Note that the 1.6% was an approximation, as the average difference between the two inflation values during the two years was approximately 1.66%.

Respondent: Bradley G. Mullins

Witness: Bradley G. Mullins

Rocky Mountain Power
Exhibit 13.7
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
Mullins Transcript from Oregon Docket No. UE 420

September 2023

1 THE PUBLIC UTILITY COMMISSION
2 OF THE STATE OF OREGON

3 Docket No. UE 420

4 In the Matter of PacifiCorp, dba Pacific Power,
5 2024 Transition Adjustment Mechanism.

6
7 September 7, 2023

8 9:30 a.m.

9
10 Evidentiary Hearing held before the Oregon Public Utility
11 Commission via Zoom on September 7, 2023, beginning at
12 9:30 a.m.

13 PRESENT:

14 Administrative Law Judge: Katie Mapes
15 Commissioner: Letha Tawney
16 On behalf of PacifiCorp: Adam Lowney, Ajay Kumar
17 Katherine McDowell
18 On behalf of Sierra Club: Rose Monahan
19 On behalf of Calpine Energy
20 Solutions: Peter Richardson,
Greg Adams
On behalf of Vitesse: Irion Sanger, Joni Sliger
On behalf of AWEC: Brent Coleman
On behalf of Staff: Stephanie Andrus

21 Transcription Service: CourtScripts, LLC
22 Jennifer Muir, CET-1149
23 PO Box 123
Philomath OR 97370
(541)207-7412
24 jmuirtranscriber@gmail.com

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I N D E X

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1 CROSS-EXAMINATION

2 BY MR. LOWNEY:

3 Q Good morning, Mr. Mullins.

4 A Morning.

5 Q I'd like to start out with your rebuttal
6 testimony, please. That's AWEC/200. If you could turn to
7 page 4.

8 A Okay.

9 Q And if I could direct your attention to line 15.

10 You testify:

11 "To develop a forecast with an overall end
12 result that is reasonable, the forecast must be
13 based on modeling assumptions that are both
14 principled and consistent."

15 You see that?

16 A Yeah.

17 Q Okay. Now, with that testimony in mind, I'm
18 going to ask you to flip to page 100, or excuse me, page
19 16 of AWEC 100, which is your direct, or excuse me, your
20 opening testimony.

21 And on page 16 of AWEC/100, you discuss your
22 recommendation related to the production tax credit rate.

23 Are you there?

24 A Yup.

25 Q And you recommend an adjustment that would

1 increase the PTC to 3 cents per kWh in 2024; isn't that
2 correct?

3 A Correct.

4 Q And on line 8 of page 16, you quantify that
5 adjustment as a decrease to Oregon allocated NPC of 2.7
6 million; is that correct?

7 A To the -- it's a reduction to the overall TAM
8 revenues, not -- not net power costs, but that's
9 the -- that's the right number.

10 Q Okay. That's -- thank you for that correction.

11 Now, further down on this same page, on line 11,
12 you testify that:

13 "The IRS adjusts the PTC rate each year by
14 applying an inflation adjustment factor."

15 And then on the next -- further down, you
16 testify -- and actually let me, sorry, I need to flip
17 pages -- on page 17, line 9, if you're there, you testify:

18 "It can be determined that the PTC rate
19 will increase to 3 cents per kWh in 2024 so long
20 as inflation equals or exceeds 3.13 percent on
21 an annualized basis for the remainder of 2023."

22 You see that testimony?

23 A I do.

24 Q And then on line 11, you testify:

25 "It's likely that inflation will exceed

1 this level for the remainder of the year."

2 And you testify that you make that
3 recommendation because "the annualized inflation rate for
4 April 2023 was 4.9 percent," and that's down on line 13.

5 Now, your testimony doesn't say this, but the
6 footnote citation supporting that 4.9 percent is relying
7 on the Consumer Price Index, or the CPI; isn't that
8 correct?

9 A Yep.

10 Q And to be clear, the CPI is not the inflation
11 metric that actually determines whether the PTC rate
12 increases or decreases. Isn't that correct?

13 A Yep. That's right. That's right. In my -- I
14 guess in my -- what is it? -- my rebuttal testimony,
15 I -- I guess I talked some -- some about that and compared
16 to the different inflation factor. What is it?
17 The -- the -- the PC -- what is it? -- PCE factor.

18 Q And we'll get there (indiscernible). I just
19 want to --

20 A Sure, sure. Just -- just to -- just to finish
21 up though. So I did compare it to the PCE factor and did
22 sort of a differential approach. And so recognizing that
23 those -- those two aren't the -- aren't the same. It
24 isn't the same as the inflation adjustment factor.

25 Q And -- and just to be clear, the inflation

1 adjustment metric that is actually used to determine the
2 PTC rate is called the Gross Domestic Product or GDP
3 implicit price deflator. Correct?

4 A That's the -- that is the index that -- that the
5 IRS uses.

6 Q Okay. Now, if I could direct your attention,
7 please, to PacifiCorp Hearing Exhibit 1308, I'm going to
8 ask you to first look at page 1, so just let me know when
9 you're there.

10 A Okay.

11 Q Now, page 1 is the document that you cite in
12 footnote 10 of your direct testimony that supports the 4.9
13 percent inflation rate you cited in your direct -- or in
14 your opening testimony, correct?

15 And just for reference, the 4.9 percent is on
16 the very first line of Table A. It says, "All items
17 unadjusted 12 months ended April 2023," and it shows 4.9
18 percent. Do you see that?

19 A Yeah. Yeah. I -- seems like this is the
20 same -- same release, but I don't -- don't recall exactly
21 what, you know, specific -- you know, what -- where it
22 specifically was. So it might've been a different
23 release, but yeah, it's -- it's there.

24 Q And -- and just to be clear, this release
25 that -- that we're looking at was from April 2023, and it

1 was issued May 10th, 2023. That's at the very top of the
2 document.

3 A Yeah.

4 Q And just to get our timing straight, your
5 testimony was filed on June 23rd, your opening testimony.
6 Is that correct?

7 A Correct.

8 Q Now, if we just turn to page 2 of Exhibit 1308,
9 this is the same Consumer Price Index news release from
10 June of 2023. And if we look at the top, it was released
11 on July 12th, so shortly after you filed your opening
12 testimony. And if we look on this document, the first
13 line on Table A is no longer 4.9 percent. It's 3 percent.
14 Isn't that right?

15 A Yeah, that's -- that's right. But that's the,
16 you know, that's, of course, the backwards-
17 looking -- looking value.

18 Q But --

19 A And, you know, the -- the inflation at least
20 over the course of the year has softened some. You know,
21 we don't know what's going to happen through -- through
22 the end of the year, you know, based on, you know, the
23 timing and the testimony that, you know, the information I
24 reviewed at the time of filing testimony, I -- I think,
25 you know, I thought it was more likely than not that it

1 was going to increase. And I -- and I still think that
2 that's the case. But, you know, of course, it's
3 not -- it's not a slam dunk in this case. It could go
4 either way.

5 But given that it's, you know, a passthrough
6 item in the P-CAM (phonetic), I think it's -- it's, at
7 least for this item, best to sort of err in favor of
8 customers and increase it rather than -- rather than not.

9 So -- but -- but, yeah, it has -- inflation has
10 softened some.

11 Q And -- and so just to be clear, you would agree
12 that according to this Consumer Price Index publication,
13 which again is the same data you relied on in your opening
14 testimony, inflation was now below the level you
15 identified as necessary to adjust the PTC as of the time
16 you filed your opening testimony?

17 And just to remind you testified --

18 A Yes.

19 Q -- is less than 3.13 percent or, put the other
20 way, if inflation has to exceed 3.13 percent in order for
21 the PTC to increase, and the document we're looking at
22 from June shows inflation at less than that amount by the
23 metric you chose to identify in your own testimony.

24 Correct?

25 A Right. So -- so just to be clear, the -- the

1 actual inflation has to be 4 percent for it to -- for it
2 to trigger. The 3.1, I -- I think that you cited, I think
3 that was just for the remainder of the year. So I think
4 that's an important clarification.

5 But I guess the point is that's backwards-
6 looking so we don't know what's, you know, what's going to
7 happen through the -- through the end of the year.

8 Q Okay.

9 A And so --

10 Q I appreciate that. I just want to confirm.
11 It -- it -- despite the fact it's backward-looking, that's
12 the number you relied on in your own testimony, correct?
13 The CPI figure, the backward-looking CPI.

14 A No, I mean, I looked at -- I looked at a number
15 of different -- different factors and things, but --

16 Q But that's the one you're citing in opening
17 testimony.

18 A -- based on what I had looked at when I filed
19 testimony. I -- you know, and I still believe it's more
20 likely to go up than not, but yeah, numbers are what they
21 are.

22 Q Okay. Now, let's turn to your AWEC 200 and page
23 41. And on -- beginning on line 16, you note that the
24 Bureau of Economic Analysis published updated second
25 quarter GPD implicit price deflator data. Do you see

1 that?

2 A It's on 41?

3 Q Yeah, beginning on line 16 and then continuing
4 on through line 18.

5 A Yeah.

6 Q And you testify that on line -- beginning on
7 line 18 that based on that data, the PTC will increase as
8 long as inflation exceeds -- equals or exceeds 4 percent.
9 And I think that's what you were just referencing.

10 Correct?

11 A Right. Right. So that's the difference between
12 the 4 and the -- the -- the 3.1. That was just for the
13 remaining three -- three quarters.

14 Q And -- and then going back to the CPI data we
15 were just talking about that. That -- the data -- both
16 the data you cited in your, or excuse me, the data
17 in -- from July -- or June of 2023 shows the CPI is at 3
18 percent, so well below the new 4 percent benchmark you
19 identify in your rebuttal testimony, correct?

20 A Correct. However, the -- I think, you know,
21 back to an earlier point, the -- in -- the implicit price
22 deflator is different than the CPI, and it's different
23 than the PCE. And when you compare it backwards-looking,
24 it actually increases more than those inflation values.

25 So like, for example, in 2021 and 2022,

1 the -- the inflation measured by the implicit price
2 deflator was 6.4 percent, actually in both years, slightly
3 different rounding. So it actually comes in higher
4 than -- than those or has come in higher than those
5 metrics.

6 So, you know, you know, apples to apples between
7 the different metrics is hard to do, but, you know, based
8 on everything I -- I saw, I felt comfortable recommending
9 an increase to -- to 3 cents.

10 Q Well, I understand that. And I just want to
11 find out exactly what you said in your testimony. And so
12 in your direct, you relied on the CPI; when you filed your
13 rebuttal, the CPI index no longer supported your
14 recommendation. And so on line 24, you now switched to
15 the Core Personal Consumption Expenditures Inflation Index
16 because it was higher than the CPI. Isn't that right?

17 A I guess I'd take issue with that, that I
18 would -- that I would simply change something because it
19 doesn't agree with my recommendation. I mean, I -- I use
20 this information because it was recent information that
21 I -- that I had. If I had used the -- the CPI value, I
22 think it would show a similar analysis when, you know,
23 when you compare it back to the implicit price deflator.

24 So -- so I think I would take issue with that.

25 Q Well, you just said you're using more recent

1 data, but on line 23, the Core PCE data you were using was
2 from June 14th of 2023. So it's actually older than the
3 data you were using when you prepared your opening
4 testimony. Isn't that correct? So you're using older
5 data from a different metric because it gave you a higher
6 number.

7 A No, that's not right. The -- this was from
8 June -- yeah, this is from June '23 -- yeah,
9 twenty -- yeah, 14th, 2023.

10 Q So before you filed your opening.

11 A Yeah, the previous data was several months
12 earlier.

13 Q Well, but this was available before you filed
14 your opening testimony; isn't that correct?

15 A Sure, but it takes a lot of time to, you know,
16 write and prepare that testimony, so -- and I'm not
17 exactly sure when this actually gets, you know, published
18 out on the web and all that -- that -- that stuff. So,
19 you know, this was kind of the -- the most recent
20 information I could find. And -- and, you know, there's
21 lots of -- there's lots of metrics and lots of ways
22 to -- to measure inflation. I think that's -- that's for
23 sure.

24 But -- but to say that, you know, I'm -- I'm
25 picking and choosing just to support a recommendation,

1 I -- I would -- I would disagree with that.

2 Q Well, and that's -- and that's fair, but just to
3 be clear, your -- your testimony doesn't explain that you
4 switched metrics, does it?

5 A I think my testimony speaks for itself. You
6 know, I clearly cite where the numbers are coming from.
7 So --

8 Q Okay. But you don't explain that you're using a
9 different metric now based on data that predated your
10 opening testimony. Correct?

11 A Is that a different question?

12 Q Okay. Well, let's move on. So the sentence
13 that begins on line 23 of page 41 begins with:

14 "Recent Federal Reserve projections
15 published on June 14, 2023, for example,
16 forecast Core PCE Inflation of 3.7 to 4.2
17 percent in the calendar year 2023, and
18 historically Core PCE Inflation has been
19 approximately 1.6 percent less than the
20 inflation rate measured using the GDP implicit
21 price deflator."

22 Now, there's a lot of factual statements you
23 make in that sentence. And you have a citation, Footnote
24 54, to a Federal Reserve Open Market committee document,
25 correct?

1 A Yeah.

2 Q And to be clear of all the factual statements in
3 that sentence, the only statement that is actually found
4 in that Federal Reserve report is that the forecast Core
5 PCE Inflation of 3.7 to 4.2 percent. Correct?

6 A Those are the values in -- in the report. You
7 can mathematically compare those values to the implicit
8 price deflator values in the prior sentence to -- to
9 figure out the -- the 1.6 percent. So I think that speaks
10 for itself.

11 Q Well, and just to be clear that when you
12 say -- and you use the word "historically" on line 1 of
13 page 42. You say, "Historically Core PCE Inflation has
14 been approximately 1.6 percent less." And isn't it true
15 that you calculated that number based on two years of
16 data?

17 A It is correct. I -- I compared those -- those
18 two years. That's -- that's right.

19 Q And isn't it also true that if you use more than
20 two years of data, your results would have been different?
21 That 1.6 percent would have been a different number.

22 A It could be. Those are -- those are the two
23 years that I looked at. I mean, it was quite high
24 relative to the PCE in '21 and '22.

25 Q And isn't it also true that the calculation you

1 performed to determine the change in the GDP implicit
2 price deflator from year to year was based on the fourth
3 quarter results of that metric?

4 A Yep, that's right. Yeah, the year end -- it's
5 the year end value. That's what I use.

6 Q Okay. Now, if I could turn your attention,
7 please, to PacifiCorp 1301. And this is your testimony
8 from Docket UE 390, which was the TAM, the 2022 TAM, and
9 just let me know when you're there.

10 A Okay.

11 Q If you could turn to page 5, please, and
12 beginning on line 15, you testify that:

13 "The annual GDP implicit price deflator
14 represents an average over the course of the
15 calendar year. The annual GDP implicit price
16 deflator is not, for example, based on the year
17 end value."

18 And so isn't it true that when you calculated
19 your 1.6 percent, not only did you only use two years of
20 data, but you didn't calculate the GDP implicit price
21 deflator correctly, according to the testimony you
22 provided in the 2022 TAM?

23 MR. COLEMAN: I'm sorry (indiscernible).

24 THE WITNESS: No, that's not right.

25 MR. COLEMAN: Which page are we on? Which

1 page 5? Page 5 of the exhibit or page 5 of the original
2 testimony?

3 MR. LOWNEY: Sorry. Page 5 of the original
4 testimony.

5 MR. COLEMAN: Okay. Thank you.

6 BY MR. LOWNEY:

7 Q And I'm sorry. I can restate the question, Mr.
8 Mullins.

9 A No, no, I think that's all right. I have kind
10 of short memory, but yeah, so -- so no, that's -- that's
11 not right. So the -- the -- the year end values were used
12 because that compares to the -- that -- the 4 percent that
13 I had calculated as -- as triggering the increase.
14 So -- so that's the -- that's the 4 percent year -- change
15 on a year-end-to-year-end basis to trigger the increase;
16 although the increase itself is calculated on an average
17 of the four quarters over the year.

18 So it's -- it's two different things. So when
19 you talk about kind of the difference, it's -- it's
20 really, you know, two different things that we're looking
21 at.

22 Q Okay. And just to be clear, that's a
23 calculation you developed on your own. Correct?

24 A So the --

25 Q The methodology you used --

1 A -- the 4 percent --

2 Q I can -- I can ask -- maybe it's a confusing
3 question. So the -- the methodology you use to calculate
4 the 1.6 percent based on two years of data, that's a
5 calculation you performed yourself based on a methodology
6 you created. Correct?

7 A Well, the -- so the -- the way that the implicit
8 price deflator increases, that's defined by the IRS. And
9 so they, you know, that's all kind of laid out, and they
10 have their own -- own way of doing it.

11 And so in calculating those and figuring out how
12 those factors have to change in order to trigger an
13 increase, you know, that was a calculation that -- that I
14 did. And in evaluating, you know, what changes, you know,
15 what might, you know, cause it to increase above that
16 level, I did, you know, calculations for that.

17 Q Okay. Let's move on. If I could direct your
18 attention, please, to AWEC/200, this is your rebuttal
19 testimony, on page 30.

20 A Okay.

21 Q Now, on line 3, the very last word there and
22 then carrying on to line 4, you testify that:

23 "The AURORA model is producing levels of
24 short-term purchase transactions that are
25 inconsistent with historical levels."

1 Do you see that testimony?

2 A I do.

3 Q And I probably should have asked this question
4 1st, but just for context, you're discussing here why it's
5 reasonable to use your methodology for calculating the
6 day-ahead to real-time adjustment. Correct?

7 A I wouldn't call it a methodology, but
8 the -- yeah. So my -- what my proposal is, is to just use
9 the -- the historical average rather than, you know,
10 running through all the complications of the, you know,
11 the different -- different pieces.

12 Q Okay. And as we just said, your -- your
13 reasoning, at least as described on line 4, is that "The
14 AURORA model is producing levels of short-term purchase
15 transactions that are inconsistent with history," correct?

16 A Yeah, and then I'd have to pull up that
17 confidential figure 5 here. Let me --

18 Q And -- and I could -- let me just direct your
19 attention to AWEC/201, and that's a document titled
20 "Mullins Proposed NPC Forecast." And looking at page 1.

21 A Okay. Let me pull that one up. Okay.

22 Q And actually, I misspoke. If I could direct
23 your attention to page 4 of that document.

24 A Okay.

25 Q And I'd just like to ask you some questions

1 about your modeling results and the purchase levels
2 included there. So if we look about halfway down, there's
3 a line called "Total Short Term Firm Purchases," and it
4 shows a figure that's rounded to \$88 million. Do you see
5 that?

6 A I don't see that. So you're looking at AWEC/200
7 Mullins/4?

8 Q AWEC/201 Mullins/4. This is your NPC report.

9 A AWEC/201. Okay.

10 Q And about halfway down, there's a "Total Short
11 Term Firm Purchase" line, and it shows rounded results of
12 \$88 million.

13 A Okay.

14 Q And then a little further down, there's another
15 line that says "Total System Balancing Purchases," and
16 that shows a rounded number of \$923 million.

17 A Okay.

18 Q You see that? And --

19 A Yup.

20 Q -- if you add those two numbers together, you're
21 going to get a figure north of a billion dollars in total
22 short-term purchases, correct?

23 A Right. Um-hum.

24 Q Okay. Now, do you have Mr. Mitchell's
25 testimony?

1 A Um --

2 Q In particular --

3 A I do.

4 Q -- his Exhibit 403, which is the "Reply Update
5 Net Power Cost Report."

6 A It's the -- the reply update. Okay.

7 Q And look at page 4. And in this document, you
8 know, your report and Mr. Mitchell's report largely mirror
9 one another in terms of their format. Obviously, the
10 numbers are different.

11 So if we go to page 4 of Mr. Mitchell's exhibit
12 and look at the same line for "Total Short Term Firm
13 Purchases," it's actually the same number as yours. It's
14 roughly \$88 million. Further down, the "Total System
15 Balancing Purchases" in Mr. Mitchell's report is \$770
16 million. Do you see those two figures?

17 A I do.

18 Q And if you add those together, it comes up with
19 right around \$858 million in total purchases under the
20 company's reply update, correct?

21 A Yep.

22 Q And so your modeling without the DA/RT price
23 component produces higher levels of short-term purchases
24 than PacifiCorp's modeling with the price component,
25 correct?

1 A Yeah, I think on a dollar basis. So -- so one
2 of the things going on there is that the -- you know, at
3 least part of the DA/RT adjustment is going in and
4 reducing the -- the dollars, even though it's related sort
5 of to both sales and purchases.

6 But I think it is actually a problem with the
7 AURORA model where it's just -- it's -- it's not properly
8 optimizing sales and purchases and resulting in really too
9 high levels of -- of purchases.

10 Q Well, and just to be clear, if, according to
11 your testimony, PacifiCorp's modeling is skewed and
12 inconsistent with historical actuals, yours is even more
13 skewed and even more inconsistent, isn't it? Because it
14 has even higher, over a billion dollars, in net -- in
15 purchases in your forecast.

16 A Yeah, I think I'd have to -- I'd have to take a
17 closer look at what's -- what's causing that. I
18 hadn't -- hadn't noticed that until -- until you pointed
19 it out.

20 Q Okay. Now, if you could also refer to
21 PacifiCorp/800, that's Mr. Mitchell's surrebuttal
22 testimony.

23 A Okay.

24 Q Page 29. And I'm going to ask you a question
25 about a confidential figure. I don't -- if we need to go

1 into a confidential session to answer this, we can
2 disregard the question, but I'm hoping I can ask you a
3 question that doesn't require you to divulge a
4 specifically confidential figure.

5 So, again, keeping in mind your modeling results
6 show short-term purchases of over a billion dollars. And
7 if you look at confidential figure DA/RT 1, the left-hand
8 column -- or the left-hand bar graph shows "Historical
9 actual short term purchase dollars." And you would agree
10 that your results are more than 200 percent higher than
11 the highest result in 2022 and far exceed any level of
12 historical purchase rates.

13 A Yeah, so I actually don't have the -- the
14 confidential version, but I think it's something that I
15 would have to -- have to look at. I think there may
16 be -- may be something going on in my particular
17 spreadsheet but would be something I -- I need to look at.

18 Q Okay. Well, let's also turn to AWEC/202. And
19 this is the exhibit you prepared that shows the actual
20 results from 2022 that you use as a comparator at several
21 points in your testimony.

22 And again, if we could turn to page 4.

23 Then just let me know when you're there.

24 A Okay.

25 Q And that shows for 2022 actuals short-term firm

1 purchases of a little over \$407 million. Do you see that?

2 A Yeah.

3 Q And so again, your level of sales in your model
4 is actually more than double that, correct?

5 A Yeah, I think that's fair enough. But I -- but
6 I think one of the things that at least when I -- when
7 I -- what I focus on when I look at the modeling is sort
8 of the net figure of sales and purchases. So, you know,
9 there's a lot of models that, you know, buy and sell, but
10 a lot of those end up being just -- just offsetting at
11 least in terms of dollars.

12 But -- but, like I said, I think that's
13 something I'd have to look at more closely.

14 Q All right. Well, let's -- let's look at the
15 sales levels you just mentioned. So if I could turn you
16 back to AWEC/201, which is, again, your proposed NPC
17 forecast.

18 And if you look at page 1, right at the second
19 line from the bottom, it has "Total System Balancing
20 Sales," and you model a rounded figure of \$728 million.

21 A Okay.

22 Q And I'm sorry, I'm going to have you flip back
23 to PacifiCorp/403, which is, again, Mr. Mitchell's reply
24 update report, and look at page 1, and we'll just look at
25 the same figure for the PacifiCorp forecast.

1 And let me know when you're there.

2 A Okay.

3 Q All right. So page 1, PacifiCorp's forecast has
4 \$402 million in -- in -- in sales. So again, your sales
5 forecast is nearly twice as high as PacifiCorp's in your
6 model. Is that correct?

7 A Yeah, I -- I think what's going on in mine is
8 the -- something with the -- with the DA/RT adjustment.
9 So where the offsetting values -- when I deleted the
10 offsetting volumes, the -- the offsetting dollars didn't
11 get captured right, and so they got blown up. And so
12 overall, it didn't impact the study, but I'm thinking
13 that's what happened in my -- in my study, and I could
14 confirm that later.

15 But -- but I think overall, you know,
16 what -- what I'm proposing with the DA/RT adjustment and
17 whatever these, you know, sales end up -- end up being,
18 you know, between all of the -- the studies is
19 just -- just tie it to the historical average. So I think
20 there -- there may be an issue with, with how that
21 got -- how that flowed through in my model. But at the
22 end of the day, all we're -- all -- you know, our
23 recommendation is just tie it to the average, and you
24 don't have to deal with these, you know, the -- the issues
25 of the, you know, sales and -- and purchases and the

1 levels and things like that by, you know, just -- just
2 using what it is.

3 Q Well, and -- and just to be clear, though, your
4 recommendation is based on the modeling results that we're
5 describing that, if I'm understanding correctly, you're
6 admitting are erroneous or unreliable. Is that correct?

7 A No, no, I think what -- well, I actually don't
8 know. So I need to go back and double-check. But -- but
9 I think what happened is some extra sales and offsetting
10 sales and purchases got mixed into my model. And so I
11 think that's something that I would need to look at.

12 But at the end of the day, what we did was just
13 tied it to the historical -- the historical levels. So,
14 you know, that was -- that was the intention of what
15 we -- of what our -- what our recommendation is.

16 And, of course, you know, PacifiCorp will do a
17 final study at the, you know, end of this case anyway to
18 kind of true all that up. So --

19 Q Okay. Well, let's -- let's look at the
20 historical actual. So let's refer back to AWEC/202,
21 please, and page 1. And so this is the 2022 actual data,
22 and it shows total sales -- short-term firm sales at \$272
23 million. Do you see that?

24 A Yeah.

25 Q And so isn't it true then that in your modeling

1 by increasing the market caps and removing them from Four
2 Corners, Mid-C, and Palo Verde, you created a forecast
3 that has nearly tripled the level of sales relative to
4 2022.

5 A Well, but, you know, market prices have gone up
6 by about that as well. Right? So, I mean, that's going
7 to be the biggest -- biggest driver of that is, you know,
8 market prices are -- are, you know --

9 Q Well, let's ask about that. So if you could
10 turn to --

11 A -- (indiscernible).

12 Q -- page 7 of AWEC --

13 A Never mind. Strike that. Strike that. That's
14 not right.

15 Q Yeah, I was going to say because you actually
16 testify the market prices are lower now than they were in
17 2022; isn't that correct?

18 A That's right. That's right. Strike that.

19 Q Okay. Now, let me ask you a question about
20 market caps. So if I could direct your attention to your
21 rebuttal testimony, AWEC/200, at page 2.

22 A Okay.

23 Q And I'd like to ask you a question about Table
24 1, which is your forecast. You know, first of all, at the
25 very top, it says "RMP July Update NPC Forecast,"

1 and -- and just to be clear, I think that's leftover
2 language from testimony you filed in Wyoming. This is
3 obviously not an RMP case, and it's not a July update.
4 Isn't that correct?

5 A So, yep, that's -- that's a typo. So thanks.

6 Q Okay. And then on line 6, where you're
7 describing your market cap recommendation, it says 95th
8 percentile, and that's not, in fact, your recommendation
9 in this case, is it?

10 A Oh, in the table. Yep, that's right. That's
11 a -- it should be the 75th. Should say 75th.

12 Q And -- and down on line 11 on that same page
13 where you describe your recommendation, you say it should
14 "be modeled consistent with the Commission's decision
15 Docket No. UE 390, the 2022 TAM." You see that?

16 A Yeah.

17 Q And -- and just to be clear, when the Commission
18 approved that use of the 3rd quartile of averages, it was
19 on a non-precedential basis. Isn't that correct?

20 A Yeah, I'd have to have to look at the order,
21 but, you know, you can -- you can always make changes or,
22 you know, propose changes after -- after an order. So --

23 Q Okay. Of course. Well, let's -- let's turn
24 back -- and I apologize for making you jump around. Let's
25 look at your opening testimonies. That's AWEC/100 at

1 page 6.

2 Let me know when you're there.

3 A All right.

4 Q And on line 16, you're describing why using the
5 70th -- 75th percentile is your recommendation. And you
6 testify that:

7 "Using an average to set a maximum level of
8 sales has the inherent result of producing sales
9 value that is less than the historical average."

10 Do you see that testimony?

11 A Yep.

12 Q And then you say in the next sentence, "That
13 is," and I quote, "the main problem with PacifiCorp's"
14 recommendation in this case. Do you see that?

15 A Yeah.

16 Q And -- and that's why then, on line 18, you
17 recommend using the -- or you testify, excuse me, that the
18 Commission recognized that fact when it approved using the
19 3rd quartile approach. Do you see that?

20 A Yeah.

21 Q Okay. I'd like to direct your attention to
22 PacifiCorp/1300, which is the order that the Commission
23 issued in the 2022 TAM. So just for context, this is
24 order number 21-379 from Docket UE 390. And just let me
25 know when you're there. I'd like to direct your attention

1 to page 27 and 28.

2 A Apologies, what's the number again?

3 Q It's Exhibit -- PacifiCorp/1300.

4 A Okay.

5 Q And thankfully, the page in the original and the
6 page in the exhibit are the same on this one. Apologize
7 for the confusion earlier.

8 A Okay. What was the -- what was the page number?

9 Q Page 27.

10 A Okay.

11 Q And if we look at the -- the second paragraph,
12 excuse me, the second sentence in the bottom paragraph, it
13 says:

14 "PacifiCorp's table comparing its overall
15 annual forecast of sales volume compared to
16 actual sales volume shows that overall actual
17 sales are approximately 6 million dollars,
18 excuse me, 6 million megawatt hours per year for
19 the last four years."

20 And in that case, those four years were 2017 to
21 2020. Do you see that?

22 A Okay.

23 Q Okay. So I just want to keep that in mind, the
24 \$6 million (sic). Now, if we turn to the very next page,
25 page 28, at the very top, it shows that in PacifiCorp's

1 case, using the average of averages resulted in -- and
2 this is a number from that table -- nearly 7 million -- 7
3 million megawatt hours. That's 6,693,996. You see that
4 number?

5 A I don't see that number.

6 Q So we're on page 28. There's a table at the
7 top. It's in the "Forecast" column. It's the second
8 number from the bottom.

9 A Okay.

10 Q And that's the calculation of forecasted sales
11 using the average of averages approach. And it's rounded
12 to 7 million megawatt hours.

13 A Okay.

14 Q And on the previous page, the Commission found
15 that the historical average was right around 6 million.

16 A Okay.

17 Q So isn't it true that you're wrong when you
18 claim that the main problem with the average
19 of -- averages is that it will inherently produce sales
20 volumes that are less than the historical average?
21 Because in this case, the forecasted sales are higher than
22 the historical average.

23 A No, that's not right.

24 Q Well, that's the data the Commission relied on.
25 Isn't that correct?

1 A Well, this -- these sales here would include,
2 like, the DA/RT adjustment, for -- for example, and
3 other -- other adjustments, so, you know, using -- if you
4 use -- I mean, it's -- if you set a maximum in a
5 value -- in a -- in a model and say it's 100 and
6 that's -- you're -- you -- you want that to be the -- the
7 average value, the -- the model has to select up to 100 in
8 every single hour in order to -- for it to be that average
9 value. But the model doesn't do that because sometimes
10 it's lower, sometimes it's -- sometimes it hits the cap,
11 sometimes it doesn't. So because it's not always up at
12 that cap level, it's always going to be -- going to be
13 lower -- lower than the cap.

14 And, of course, there's -- there are other, you
15 know, modeling adjustments that are done after market caps
16 to -- to actually increase sales that actually don't agree
17 with, but, you know, but, you know, mathematically,
18 it's -- it's -- it's just not possible.

19 Q Well, this data shows you're wrong, though;
20 isn't that correct? And isn't that because those caps are
21 set using bookouts, which are not included in the actual
22 historical sales data?

23 A No, I don't think it -- I don't think it
24 shows -- shows that I'm wrong. I mean, the -- the -- the
25 map kind of speaks for itself there. You know, the fact

1 that there are additional volumes at an outside of grid, I
2 don't think it makes the conclusion that I have the
3 testimony wrong, that, you know, setting a -- using a
4 maximum to set an average is not -- not accurate.

5 Q All right. Let's turn to your rebuttal
6 testimony, AWEC 200, page 4.

7 A Okay.

8 Q Now, I'd like to ask you about the question and
9 answer that begins on line 17, where you're discussing the
10 fact that PacifiCorp has historically under-forecast its
11 net power costs in the TAM. And on line 17, you testify,
12 "What is driving the recent NPC variances?" And you
13 state, "Market conditions in late 2022 and early 2023 were
14 extraordinary."

15 Do you see that?

16 A I do.

17 Q Now, if I could direct your attention to
18 PacifiCorp 1302, and this is again testimony from Docket
19 UE 390, which was the last litigated TAM.

20 A Okay.

21 Q Let me know when you're there. And if I --

22 A I'm there.

23 Q -- direct your attention to page 3 of the
24 original. So it's page 5 of the exhibit.

25 And on line 16, in that case, you're testifying

1 again that you disagree that PacifiCorp is persistently
2 under-forecasting NPC.

3 And beginning on line 21, you testify, excuse
4 me, on the next page, page 4, beginning on line 5, you
5 testify that:

6 "The GRID model is designed to produce a
7 normalized forecast, which does not include the
8 extraordinary events that have taken place in
9 recent years."

10 And then you point to 2018, '19, and '20 as also
11 being extraordinary years. So if we just put this
12 together with the testimony in this case, of the last five
13 years, four of them have been extraordinary years that
14 don't show that there's an under-forecasting problem,
15 correct?

16 A (No audible response.)

17 Q And the one year that, by your own admission, is
18 normal was 2021. Is that correct?

19 A I guess there's a couple -- couple questions
20 there. Not sure which one to answer.

21 Q Well, is it your testimony that of the last five
22 years, there has been only one normal year, 2021?

23 A Well, in the past five years, there have been
24 some extraordinary circumstances, you know, the pipeline
25 rupture with -- with Enbridge; the -- what is it? -- the

1 Texas energy crisis; and then, you know, recently, kind of
2 elevated prices last year and -- and kind of the -- just
3 market prices that went through the roof.

4 And, you know, at the (indiscernible) part of
5 this year. And -- and I guess the point is that, you
6 know, we -- we -- we forecast market prices, right?
7 They're -- they're put into the -- into the model, and
8 they're -- they're put in at what the forward -- forward
9 market prices are at the time. And sometimes they're
10 lower. Sometimes they're higher. And maybe they don't
11 pick up on, you know, some of these, you know,
12 extraordinary events, but, you know, they -- they are, you
13 know, the prices that if you went out today, you could buy
14 power next year at.

15 And so, you know, if -- if -- if
16 there's -- there's an issue with -- with the -- the market
17 prices, that's -- that's just in the market price
18 forecast. It's not -- not necessarily, you know, a
19 modeling -- a modeling issue. And so I think that's the
20 point of this testimony and the -- the testimony in this
21 case.

22 Q Well, and just to be clear, that 2021 was the
23 one year in the last two litigated TAMs that you did not
24 describe as extraordinary. And isn't it true that
25 according to the company's analysis, they under-forecast

1 NPC by 21 percent in that year?

2 A I -- I don't know. I don't know. But -- but I
3 think the -- the point I was making is that the, you know,
4 you know, it's -- it's based on normalized or, you know,
5 forward-looking market prices. And so, you know, if you
6 take those as a given that it, you know, that it is, you
7 know, you know, you can't -- you can't take these -- these
8 events sort of out of -- out of that context.

9 Q But if every year has the same type of
10 extraordinary event, it's at some point no longer
11 extraordinary. Isn't that correct?

12 A You know, not necessarily. I mean, you know,
13 certainly, the second half of this year has been -- has
14 turned out to be better than expected. So, you know,
15 things go through phases. Sometimes it's -- it's
16 turbulent, and sometimes it's not.

17 I mean, I think, you know, ten years ago, eight
18 years ago, market prices were pretty low. They stayed low
19 for a long time. So I don't think so.

20 Q All right. Well, let me -- let me just direct
21 your attention -- I want to keep that in mind that seven
22 or eight years ago, market prices were normal. So if you
23 could look at PAC/1306, this was testimony that you filed
24 in Docket UE 396, excuse me, 296, which was the 2016 TAM.

25 A It was a long time ago.

1 Q It was a long time ago. We were much younger
2 then. Less gray hair on my end anyway.

3 And if I could just turn your attention to page
4 9 of the original, which is 10 of the exhibit.

5 And there --

6 A Okay. So I'm at 1306, page 10.

7 Q Correct. Page 9 of the -- yeah, page 9 of the
8 original, 10 of the exhibit.

9 A Okay.

10 Q At the very top, you're testifying about "Why
11 has the company's actual NPC been higher than normalized
12 NPC?" And again, you describe abnormal years in 2013 and
13 '14, correct?

14 A Yep.

15 Q So collectively, then, if you add that back in
16 with the testimony more recently, over the last 11 years,
17 7 of them have been abnormal or extraordinary, and that
18 explains the consistent and persistent under-forecasting
19 according to your testimony?

20 A I -- I don't know if I could remember very well
21 back that far, but I mean, you certainly could
22 characterize it that way if -- if you wanted to, but, you
23 know, I -- I do think that, you know, what's -- what's
24 happened in the past year is -- has been, you know, kind
25 of on a different level.

1 You know, you -- the thing is with these markets
2 is you never -- you never know what's -- what's going to
3 happen with them. So --

4 Q And just to be clear --

5 A -- yeah, it has been extraordinary.

6 Q Sorry, I didn't mean to interrupt. And just to
7 be clear, when you describe 2022 as an extraordinary year,
8 that's also the year you're comparing 2024 to, correct?

9 When you're saying net power costs in 2024 should be
10 closer to 2022 despite the fact that was an extraordinary
11 year.

12 A Yeah, I mean, I think based on what we're seeing
13 in markets now, I mean, probably lower, but, you know, I
14 think it -- it is what it is.

15 Q Okay. I just have a few more questions, Mr.
16 Mullins. If you could turn back to your opening
17 testimony, AWEC 100, at page 3, please.

18 A All right. I think I am there.

19 Q All right. And --

20 A Okay.

21 Q -- moving down to line 14, you're describing an
22 adjustment that you made related to the model version of
23 AURORA. And you testify on line 17 that "Energy Exemplar
24 provides periodic updates to the AURORA model every few
25 months." You see that?

1 A Yeah.

2 Q And then on the next line, you say, "These
3 updates generally include changes and improvements to the
4 modeling environment and the model's algorithms." Do you
5 see that?

6 A Yep.

7 Q And in this testimony, you criticize the company
8 for using an older version of AURORA than the one you
9 used. Isn't that true?

10 A I don't think I -- I criticize them, so I don't
11 think that's true.

12 Q Well, you recommend that the -- that the NPC
13 update be based on the results of your calculations using
14 a more updated version, which, according to your
15 testimony, includes improvements. Isn't that true?

16 A So -- right. So I guess to -- to clarify,
17 because I clarified this in my -- my rebuttal testimony,
18 so, you know, when I was preparing this testimony and I
19 was rerunning the model, I was coming up just with a
20 lower -- lower value than -- than PacifiCorp was. And I
21 wasn't sure what the -- the cause of it was.

22 And here I just attribute it -- attributed it to
23 the -- the different model versions; however, in
24 the -- the reply update PacifiCorp used an updated
25 modeling version, and so I was able to confirm that it

1 wasn't actually the -- it's not actually the model version
2 that's causing the difference. It's just something about
3 my computer versus their computer that's -- that's causing
4 the difference.

5 And it's -- it's, you know, different computers
6 have, you know, sort of different, you know, parameters
7 and then different, like, rounding points and different,
8 you know, ways of randomizing numbers, and I think in a
9 big simulation, those -- those can add up.

10 And so -- and so yeah, so mine still resulted in
11 a lower -- lower value. So I included that in my
12 recommendation.

13 Q And -- and just to be clear, PacifiCorp updated
14 the version they were using in their reply update. You
15 did not update yours. So now you are using an older
16 version that, by your own testimony, lacks the
17 improvements that are included in the version PacifiCorp
18 is using. Isn't that correct?

19 A Right, yeah, and I -- I didn't -- you know,
20 I -- I confirmed it wasn't the model version that's
21 causing the difference, right? So it was the -- just the
22 computer it was being run on. So --

23 Q Well, you --

24 A But that's right. I -- I didn't update my -- my
25 model version.

1 Q So when you were describing how AURORA updates
2 the model and that update -- those updates include
3 improvements, you -- are you testifying today you
4 just -- you don't know what happens with AURORA? You're
5 not familiar with how that model gets updated and changed.

6 A Well, I think that's kind of a rude way to put
7 it, but no, I wouldn't testify that way.

8 Q But your testimony originally is
9 incorrect -- I'm trying to understand exactly why -- if
10 the testimony in your direct still stands or if you are
11 changing it.

12 A Yeah, I think I'd take a look at my rebuttal
13 testimony and maybe find it.

14 Right. So I talked about it on page, like, 41
15 of my rebuttal. So I say I attributed this to the use of
16 a different AURORA model version. And then PacifiCorp
17 updated its AURORA model version in reply testimony, but
18 the differences are still there.

19 So I -- my understanding now is that the
20 difference or the difference is being driven by an
21 architectural difference, so, you know, a difference in
22 the type of computer. And so -- and the difference was
23 smaller in my, you know, rebuttal testimony, but, you
24 know, so -- so I -- I included the 500, you know, \$500,000
25 difference in my recommendation because that's what my

1 computer calculated.

2 Q All right. Thank you, Mr. Mullins.

3 MR. LOWNEY: I have no further questions.

4 ALJ MAPES: Thank you, Mr. Lowney, Mr.
5 Mullins.

6 Mr. Coleman, do you have any redirect?

7 MR. COLEMAN: So a pause to see if there's
8 any or any questions from -- from yourself or
9 Commissioner.

10 ALJ MAPES: There are not.

11 MR. COLEMAN: Can you bear with me just one
12 second to take a quick look at my notes?

13 ALJ MAPES: Absolutely.

14 (Pause)

15 MR. COLEMAN: Your Honor, I think in the
16 interest of time and the scope of the case and its
17 procedural posture, I don't have anything to redirect.

18 ALJ MAPES: Okay. Well, thank you, Mr.
19 Mullins. You're excused.

20 THE WITNESS: All right. Thank you.

21 ALJ MAPES: So those are the witnesses we
22 have scheduled for today. Tomorrow, we will resume in
23 confidential session.

24 Actually, let me check on that. Mr.
25 Lowney, do you know if, given the settlement, your

Rocky Mountain Power
Exhibit 13.8
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller

WPSC Final Order; Docket No. 20000-ER-95-99

September 2023

BEFORE THE PUBLIC SERVICE COMMISSION OF WYOMING

IN THE MATTER OF THE APPLICATION)
OF PACIFICORP FOR A RETAIL ELECTRIC)
SERVICE RATE INCREASE OF \$9,719,000)
PER YEAR, FOR AUTHORITY TO REVISE) DOCKET NO. 20000-ER-95-99
ITS TARIFF SCHEDULES AND TO)
IMPLEMENT AN ALTERNATIVE FORM OF)
REGULATION)

APPEARANCES

For Applicant, PacifiCorp (Applicant or PacifiCorp):

BRENT R. KUNZ, of Hathaway, Speight & Kunz, Cheyenne, Wyoming; EDWARD A. HUNTER and JOHN M. ERICKSSON of Stoel Rives, Salt Lake City, Utah; and HOUSTON G. WILLIAMS of Williams, Porter, Day and Neville, Casper, Wyoming.

For Intervenor the Consumer Advocate Staff of the Wyoming Public Service Commission (Consumer Advocate Staff):

DAVID J. LUCERO and IVAN H. WILLIAMS, Staff Counsel, Public Service Commission, Cheyenne, Wyoming.

For Intervenors Amoco Production Company (Amoco) and the Wyoming Industrial Energy Consumers (Industrial Energy Consumers):

PAUL J. HICKEY of Hickey, Mackey, Evans, Walker & Stewart, Cheyenne, Wyoming.

For Intervenor OCI, Wyoming, L.P., successor to Rhone-Poulenc of Wyoming L.P. (OCI):

JUDITH J. MATLOCK of Davis, Graham & Stubbs, Denver, Colorado.

For Intervenor Exxon Corporation U. S. A. (Exxon):

JAMES R. BELCHER of Holland and Hart, Cheyenne, Wyoming.

For Intervenor Marathon Oil Company (Marathon):

PATRICK G. PITET, Regional Counsel for Marathon, Cody, Wyoming.

HEARD BEFORE

Chairman Steve Ellenbecker
Deputy Chairman Doug Doughty
Commissioner Kristin H. Lee

Chairman Ellenbecker presiding.

FINAL ORDER
(Issued August 23, 1996)

This matter is before the Public Service Commission (Commission) upon the application of PacifiCorp for a general rate increase, to implement an alternative form of regulation (AFOR) and for certain other relief; the interventions of Marathon, Sinclair Oil Corporation (Sinclair), Exxon, the Consumer Advocate Staff, Amoco, OCI, FMC Corporation (FMC), the Industrial Energy Consumers (described below), Canyon Creek Compression Company (Canyon Creek), Church & Dwight Co., Inc. (Church & Dwight), Solvay Minerals, Inc. (Solvay), and upon the various directives of the Commission set forth below.

1. The Applicant. PacifiCorp, d/b/a Pacific Power & Light Company, provides retail electric public utility service to consumers located in two areas in Wyoming pursuant to a certificate of public convenience and necessity, as issued and amended by the Commission. The eastern Wyoming portion of its service area covers portions of Albany, Big Horn, Carbon, Converse, Fremont, Hot Springs, Johnson, Natrona, Park, Platte, Sublette (northeastern and southeastern), Sweetwater, and Washakie Counties, with offices at Buffalo, Casper, Glenrock, Cody, Douglas, Green River, Lander, Laramie, Lovell, Rawlins, Riverton, Rock Springs, Thermopolis, and Worland. The western Wyoming portion of its service area covers portions of Lincoln, Sublette (central and western) and Uinta Counties, with offices at Big Piney, Evanston, Kemmerer and Pinedale. PacifiCorp is the largest electric public utility in Wyoming and has its principal place of business in Wyoming at Casper. It is a public utility as defined by W. S. § 37-1-101(a)(vi)(C); and, as such, it is subject to the jurisdiction of the Commission.

2. The Application. On November 8, 1995, PacifiCorp filed its application for authority to increase rates by \$9,719,000 per year or an average of approximately 4% based on a 1994 calendar year test year, to revise its tariff schedules and to implement an AFOR plan. Under the proposed plan, future price increases would be capped by an index based upon the Gross Domestic Product Price Index (GDPPI), adjusted by an offsetting productivity factor. The proposed plan establishes a revenue sharing mechanism based on an earnings band of 250 basis points around an established benchmark return on equity to be established in this case and adjusted annually thereafter. It also contains provisions for separately and directly passing through to customers "exogenous costs" which arise beyond the context of the described rate increase limitations. The plan would implement quality of service performance standards and be subject to a comprehensive review at the end of three years. An effective date of June 30, 1996, was requested for all of the relief requested.

3. Intervenors and other participants.

a. On November 25, 1995, Marathon, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of November 28, 1995.

b. On November 30, 1995, Sinclair, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of December 8, 1995.

c. On December 5, 1995, Exxon, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of December 11, 1995.

d. On December 12, 1995, the Consumer Advocate Staff, stating its interest under W. S. § 37-2-110 and Sections 103, 111 and 113 of the Commission's Rules, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of December 11, 1995.

e. On December 5, 1995, Amoco, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of December 28, 1995.

f. On December 5, 1995, Rhone-Poulenc of Wyoming L.P., predecessor in interest to OCI, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 3, 1996.

g. On January 16, 1996, FMC, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 18, 1996.

h. On January 19, 1996, the Industrial Energy Consumers, stating its interest as an informal group of industrial customers of PacifiCorp (consisting of Amoco, Exxon, Canyon Creek Compression Company (Canyon Creek), Chevron U. S. A., Inc. (Chevron), Church & Dwight Co., Inc. (Church & Dwight), FMC, Marathon, Mobil Oil Corporation, Rhone-Poulenc (now OCI), Solvay Minerals, Inc. (Solvay), Kiewitt Mining Group and SF Phosphates), moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 25, 1996.

i. On January 19, 1996, Canyon Creek, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 25, 1996.

j. On January 19, 1996, Church & Dwight, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 25, 1996.

k. On January 19, 1996, Solvay, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 25, 1996.

l. On January 19, 1996, the University of Wyoming, stating its interest as a customer of PacifiCorp, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 25, 1996. On May 23, 1996, the University of Wyoming moved to withdraw its intervention, and this motion was granted in the Commission's order of May 25, 1996.

m. On January 19, 1996, MidCon Power Services Corp. (MidCon), stating its interest as a wholesale power marketer, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of January 25, 1996. On February 1, 1996, PacifiCorp filed its opposition to this intervention, alleging that MidCon lacked the necessary interest in the case and that allowing the intervention would unnecessarily broaden the issues to be considered. PacifiCorp followed this with a February 9, 1996, motion to vacate the Commission's order granting intervenor status to MidCon; and MidCon filed a pleading in opposition to PacifiCorp on February 20, 1996. On April 9, 1996, MidCon filed a motion to withdraw as a party to the case; and the Commission granted this motion in its order to that effect of April 10, 1996.

n. On January 29, 1996, the Land and Water Fund of the Rockies (LAW Fund), stating its interest as an environmental law organization which has customers of PacifiCorp as members, moved to intervene in this proceeding; and the Commission granted intervenor status by its order of February 6, 1996. On June 7, 1996, the LAW Fund moved to withdraw its intervention, citing an agreement with PacifiCorp regarding an "environmentally attractive" service program. This motion was granted by the Commission on June 17, 1996, at the public hearing in this matter. (Transcript of public hearing proceedings, hereinafter Tr., page 11.)

o. On April 8, 1996, the City of Douglas, filed with the Commission its Resolution No. 611 opposing the closure of the local PacifiCorp business office and requesting, *inter alia*, that the Commission evaluate the impact of the closures on the quality of service rendered by PacifiCorp. The City did not ask to become a party to the case. The Resolution noted concerns with payments and deposits, starting, changing and terminating service, adequate customer information and community assistance for customers with special needs.

4. Prehearing procedure.

a. **Notice of the Application.** On November 27, 1995, the Commission issues its Notice of Application and Procedural Order Setting Pre-Hearing Conference, describing the Application, establishing a preliminary intervention deadline of December 29, 1995, and setting a pre-hearing scheduling conference for December 6, 1995, to be held at the Commission's offices at 700 W. 21st Street, Cheyenne, Wyoming, to discuss, *inter alia*, a comprehensive proposed procedural schedule for the case. This Notice was published in newspapers of general circulation in Casper, Evanston, Laramie, and Rawlins. A public service announcement concerning

the Notice and application was, at the same time, broadcast on radio stations in Casper, Evanston, Laramie, and Rawlins.

b. Initial suspension of rates. On November 29, 1995, the Commission issued its Order Suspending Application of PacifiCorp, suspending the effectiveness of the proposed rates for the six-month period following the initial thirty-day notice period as provided for in W. S. § 37-3-106(b) and (c).

c. Prehearing scheduling conference and order. On December 6, 1995, the Commission issued its procedural order under W. S. § 37-2-102 allowing one Commissioner or a hearing examiner to preside over and conduct the ordered prehearing scheduling conference. The prehearing scheduling conference was held at the Commission's offices on December 6, 1995, with PacifiCorp, the Consumer Advocate Staff, Chevron U. S. A., Inc. (Chevron), Exxon, Amoco, Solvay, and FMC participating. At the proceeding, scheduling and discovery-related matters were discussed, including, among other things, a proposed July 1, 1996, effective date for the final rates developed in the case, changing the intervention deadline, and removing limitations on interrogatories. The Commission determined that the intervention deadline would be reset, the public hearing would be reset for June 17, 1996, in Casper, Wyoming, all witnesses must be available for cross-examination and, due to the complexity of the case, the interrogatory limit would be lifted, with any party having the ability to object to the Commission if abusively voluminous interrogatories were served on it.

On December 28, 1995, the Commission issued its Order Setting Public Hearing and Procedural Schedule, setting the public hearing for June 17, 1996, at the Oil and Gas Conservation Commission Building in Casper, Wyoming, establishing a detailed, revised procedural schedule in the case, requiring the witnesses to be present at the hearing to present summary testimony and be available for cross-examination, and, because the case presents complex issues of first impression, finding good cause to allow parties, under Rule 33(a) of the Wyoming Rules of Civil Procedure, to serve more than 30 interrogatories on other parties. Parties were reminded that the provisions of Rule 26(a) of the Wyoming Rules of Civil Procedure allows a party to seek the protection of the Commission against abusive discovery. The intervention deadline was changed to January 29, 1996. This Order was published in newspapers of general circulation in Casper, Evanston, Laramie, and Rawlins. A public service announcement concerning the Order was, at the same time, broadcast on radio stations in Casper, Evanston, Laramie, and Rawlins.

d. Revision to the procedural schedule. On March 18, 1996, the Consumer Advocate Staff, PacifiCorp and the Industrial Energy Consumers filed a Stipulated Motion Requesting Extension of Deadlines Set Forth Within the Procedural Order asking that certain previously established procedural dates be changed, including the March 25 testimony filing deadline and the procedural dates which depend on that date. This motion was granted by the Commission in its March 19, 1996, Amended Order Setting Public Hearing and Procedural Schedule due to the complexity of the

issues presented by the case and the consequent need of the parties for additional time to prepare testimony and otherwise prepare for the June 17 public hearing. Because this Order did not change any deadline dates relevant to public participation in the case, it was not published.

e. Confidential information. To expedite the production of documents and other information by affording necessary protection to trade secrets and confidential commercial, financial and competitive information useful in understanding and developing party positions in this case, the Commission issued its General Protective Order on April 10, 1996. The order governs the use of confidential information in the case, defines the persons entitled to have access to it, prescribes a form of Nondisclosure Agreement for use by the parties, makes provision for the receipt of such information into evidence under seal, and provides for its subsequent use and disposition. It provided for the use of confidential information in pleadings, decisions and orders and defined an *in camera* hearing procedure. At various times before the hearing, Marathon, Church & Dwight, and Energy Ventures Analysis, Inc. (assisting the Consumer Advocate Staff in this matter) signed Nondisclosure Agreements and filed them with the Commission.

f. Second suspension of rates. On April 12, 1996, the Commission issued its second order suspending application of PacifiCorp, suspending the effectiveness of the proposed rates for the final three-month period allowed by W. S. § 37-3-106(b) and (c).

g. Waiver of further filing requirements. On June 3, 1996, the Consumer Advocate Staff moved for a waiver of any further testimony pre-filing requirements in this case; and, on June 5, 1996, the Commission issued its letter order confirming that it would not set up further pre-filing requirements for testimony of the parties to this case regarding any Stipulation therein.

h. Change of primary hearing venue. The Commission was informed that a youth athletic tournament had been scheduled to be held in Casper at the same time as the public hearing in this case and that, due to the large size of this tournament, no hotel or motel rooms would be available in the city for hearing participants. Because there were over fifty potential witnesses in the case and a substantial number of actively participating parties, the Commission decided to move the primary hearing venue to Cheyenne. Consequently, on June 4, 1996, the Commission issued its Notice and Order Setting Revised Public Hearing Schedule setting two public hearings in the case. The first was a public comment hearing to be held beginning at 10:00 am. on June 17, 1996, at the Oil and Gas Conservation Commission Building in Casper, Wyoming. The Commission directed PacifiCorp and the Consumer Advocate Staff to make summary presentations about the case and to respond to the comments and questions of the public. The second hearing scheduled in this Notice and Order was the main evidentiary hearing to be held at Cheyenne beginning at 10:00 am. on June 17, 1996, in the Herschler Building with the continuation to be held at the Raper Armory in Cheyenne. This Notice and Order was published in newspapers of general circulation in Casper, Evanston, Laramie, and Rawlins. A public service announcement concerning

the Notice and Order was, at the same time, broadcast on radio stations in Casper, Evanston, Laramie, and Rawlins. At the public hearing, judicial notice was taken of the [i] publication of this Notice and Order and the previous public notices described hereinabove, and [ii] broadcasting of the radio public service announcements in connection therewith. (Tr., pages 6-7.)

i. **Stipulation.** On June 13, 1996, a Stipulation (Stipulation) proposing a resolution of all of the issues in the case was filed with the Commission. The Stipulation was signed by PacifiCorp, the Consumer Advocate Staff, FMC, Solvay, Amoco, Canyon Creek, Sinclair, Chevron, Church & Dwight, Marathon, OCI, Exxon, Mobil, SF Phosphates Limited Company (and J. R. Simplot Co.) (collectively, SF Phosphates), Kiewit Mining Group and the Industrial Energy Consumers.

5. **Prefiled testimony.** With the Application, PacifiCorp filed the testimony of Frederick W. Buckman, Thomas A. Lockhart, Anne E. Eakin, D. Douglas Larson, William E. Wordley, Robert F. Lanz, John R. Stageberg, Rodger Weaver, Daniel C. Peterson, David L. Taylor and William R. Griffith. Other parties filed testimony by the required April 8, 1996, deadline as set forth below in this table:

Party	Witness
Marathon	L. Michael Mueller Joseph A. Herz A. Scott Rothery
Amoco	Vann E. Prater (revised: June 17, 1996)
SF Phosphates	David H. Hawk
Church & Dwight	L. Scott Dickerson
Solvay	Richard L. Casey
Canyon Creek	James H. Parks
Exxon	Keith Merkley Jan W. Michael
FMC	Mark H. Wilcox
OCI	Richard A. Lissa
Industrial Energy Consumers	Richard Anderson Kevin Higgins James T. Selecky Michael Gorman Peter Navarro
Sinclair	R. P. Laurentius
Consumer Advocate Staff	Robert A. Larsen Bryce J. Freeman Lou Ann Westerfield Denise K. Parrish Sue A. Petrie David M. Mosier Emily Medine

All prefiled testimony and exhibits were accepted into the record at the public hearing. (Tr., pages 75-80.)

6. Public hearing. Pursuant to public notice, and under the Wyoming Administrative Procedure Act and the Commission's Rules, the Commission [i] held the main evidentiary public hearing in this matter on June 17 and 18, 1996, at the Herschler Building and the Raper Armory in Cheyenne; and [ii] held the public comment hearing in the case on June 17, 1996, at the Oil and Gas Conservation Commission Building in Casper. At the main public evidentiary hearing, PacifiCorp and all intervenors participated fully in the hearing, with industrial intervenors participating either in person, through counsel or through the Industrial Energy Consumers. No further or supplemental hearing was requested by any party or required by the Commission. No party asked to file a brief in this matter.

At the end of the public hearing, on June 18, 1996, the Commission deliberated in the presence of the parties and made a unanimous bench decision accepting and approving the Stipulation offered to it by all the parties to the case in resolution of, among other things, the pricing and service measurement issues presented therein. It was accepted and approved unchanged, effective for service rendered on and after July 1, 1996. (Tr., pages 369-378.) To implement the Stipulation fairly, the parties agreed that it would be in the public interest to allow residential customers the opportunity, freely and without penalty, to choose between the alternative service schedules under which they could take service during the first twelve months after the approved tariffs take effect. (Tr., pages 212-213.) The Stipulation, as it appears in the record of this case, is incorporated herein by reference.

7. Post-hearing matters. Because it would not be possible to issue a comprehensive order in this case before the approved July 1, 1996, effective date of the tariffs and to allow its bench decision to be carried into effect at the designated time, the Commission, on June 25, 1996, issued its Interim Order on Filing of Tariffs and Effectiveness of Rates, directing PacifiCorp to file a tariff carrying into effect the Stipulation and agreed-to requirement that residential customers have the opportunity to choose between alternative applicable service schedules during the first twelve months the tariffs are in effect. On June 26, 1996, PacifiCorp filed its compliance tariff addressing the Interim Order of the Commission; and the Commission approved those tariffs at its regular open meeting of July 1, 1996.

8. Applicable legal standards.

a. The public interest. Our general legal standard in this case is that we must uphold the public interest, and the desires of the utility are secondary to the public interest. *Mountain Fuel Supply Company v. Public Service Commission*, 662 P.2d 878 (Wyo. 1983).

b. Substantial evidence. The Wyoming Administrative Procedure Act requires our decisions to be supported by substantial evidence (W. S. § 16-3-114(c)(ii)(E)); and it requires the support of “the type of evidence commonly relied upon by prudent men in the conduct of their serious affairs” (W. S. § 16-3-108(a)).

c. Rates and services. Our actions must produce rates which are in compliance with Wyoming statutes. For example, under W. S. § 37-2-121, the rates of public utilities must be “just and reasonable,” and “. . . inadequate or unremunerative, or . . . unjust, or unreasonable, or unjustly discriminatory, or unduly preferential . . .” rates must be disallowed by the Commission. W. S. § 37-2-121 also provides that the “. . . rates may contain provisions for incentives for improvement of the public utility’s performance or efficiency, lowering of operating costs, control of expenses or improvement and upgrading or modernization of its services or facilities. Any public utility may apply to the commission for its consent to use innovative, incentive or nontraditional rate making methods.” This statute gives the Commission considerable authority to approve innovative utility proposals as long as they “. . . can be shown by substantial evidence to support and be consistent with the public interest.” W. S. § 37-3-101 reiterates that standard, stating that all rates “. . . shall be just and reasonable, and all unjust and unreasonable rates are prohibited.”

W. S. § 37-2-122(b) provides essentially the same standard for a utility’s services. If we find that any service or service regulation is “unjustly discriminatory or unduly preferential” or “unjust or unreasonable” or if any service or facility is found to be “inadequate or unsafe,” we may require services, facilities or service regulations which we “determine to be adequate and safe, or just and reasonable, . . . including any provisions concerning the availability or reliability of service.”

The courts have given the Commission the ability to apply its expertise to the complexities of public utility regulation. If the end result of the Commission’s action complies with the “just and reasonable” standard of the statutes, the methodology for arriving at that result is within the prerogatives of the Commission. *Mountain Fuel Supply, supra*, at 885.

d. Rational distinctions among rates and services. It is clear that the Legislature has given the Commission considerable latitude in determining what rates or services are unduly preferential or discriminatory and that all rates and services do not have to be alike.

For example, and regarding rates, W. S. § 37-3-101 states that “[a] rate shall not be considered unjust or unreasonable on the basis that it is innovative in form or in substance, that it takes into consideration competitive marketplace elements or that it provides for incentives to a public utility.” Even though a utility may not “. . . charge, demand, collect or receive from any person greater or less or different compensation for any service rendered or to be rendered by the public utility than is charged, demanded, collected or received by the public utility from any other person *for*

a like and contemporaneous service under similar circumstances and conditions,” the Commission may nevertheless “. . . determine that rates for the same service may vary depending on cost, the competitive marketplace, the need for universally available and affordable service, the need for contribution to the joint and common costs of the public utility, volume and other discounts, and other reasonable business practices.” [Emphasis added.]

Regarding services, W. S. § 37-3-112 requires that the “. . . service and facilities of every public utility shall be adequate and safe and every service regulation shall be just and reasonable” but states that “[t]his provision shall not be construed as prohibiting a public utility from establishing classifications which distinguish among its various services, facilities or service regulations *if the classifications are not unduly discriminatory among the customers in the same class of service.*” [Emphasis added.]

e. Scope of inquiry. The scope of Commission inquiry in this case is broad. For example, W. S. § 37-2-119 is one of the statutes which establishes the parameters of Commission inquiry regarding the rates of a public utility. Under this statute,

“. . . the commission may investigate, consider and determine such matters as the cost or value, or both, of the property and business of any public utility, used and useful for the convenience of the public, and all matters affecting or influencing such cost or value, the operating statistics for any public utility both as to revenues and expenses and as to the physical features of operation in such detail as the commission may deem advisable; the earnings, investment and expenditures of any such corporation as a whole within this state, . . .”

W. S. § 37-2-122(a) allows the Commission, in determining just and reasonable rates to “. . . take into consideration availability or reliability of service, depreciation of plant, technological obsolescence of equipment, expense of operation, physical and other values of the plant, system, business and properties of the public utility whose rates are under consideration.”

9. The facts of the case developed in the context of Stipulation issues. The majority of the issues presented by PacifiCorp’s Application in this case were presented to the Commission for consideration and addressed by the parties in the context of the Stipulation. We will therefore discuss them as they are presented in the Stipulation.

a. The revenue requirement. In its original case, PacifiCorp filed extensive testimony and evidence supporting an overall rate increase of approximately \$36,485,482 million per year-- an increase of about 14.23% overall; but PacifiCorp applied only for an increase of \$9,719,000 (or about 4%) per year. The evidence produced by the Consumer Advocate Staff showed that an overall increase of \$23,799,603 per year, or about 9.15%, could be justified. The Industrial Energy Consumers and Marathon filed evidence on revenue requirements and the cost of

capital which, taken together, would support less than a 4% per year increase. In the Stipulation, the parties agreed that the revenue requirement to be advocated was \$8,823,000 or about 3.6%. This was arrived at through two adjustments to PacifiCorp's applied-for increase. For those municipalities charging a franchise tax in excess of 1%, the amount over 1% would be stated separately on customers' bills. They would consequently no longer be rolled into the overall company Wyoming revenue requirement and this would lower the revenue requirement by \$696,000. The other adjustment would remove \$200,000 per year from the revenue requirement for Schedule 48T. (Tr., pages 20-23 and 32-33.)

Both PacifiCorp and the Consumer Advocate Staff used a calendar year 1994 test year adjusted for known and measurable changes into 1995. Each case relies fully on historic costs and they contain no specific projections or future test year methodologies to develop the numbers which result in the stipulated increase. No marginal cost studies were used in developing the Stipulation; and the only element of estimation was employed to derive the likely value of Clean Air Act emission allowances over the next three years. The extensive PacifiCorp cost of service study fully supports the stipulated increase. (Tr., pages 64-65, 70-71, and 234.) The Consumer Advocate Staff noted that the Industrial Energy Consumers' case did not deal with every element normally found in revenue requirement presentations in rate cases and that many of the Industrial Energy Consumers' proposed adjustments ". . . had to do with the interjurisdictional allocations that they would have proposed to change from the PITA method . . ." (Tr., page 221.) PITA (the PacifiCorp Interjurisdictional Task Force on Allocations) is an efficient working accord which addresses the complex issues of allocating plant among the various jurisdictions in which PacifiCorp serves. Adoption of ratemaking concepts which contravene the accord would weaken it and invite other states to disregard it also. We will therefore not disturb the hard won consensus or act in derogation of either the PITA accords or the PITA process.

Most of the adjustments made by the Consumer Advocate Staff and PacifiCorp in deriving their revenue requirements presentations are contained in the prefiled cases of the parties; and, in the context of the Stipulation, need not be discussed at length here except to observe that they do, in fact appear to be of the type generally presented in such traditional and long-approved rate setting cases. Note that no comment of the Commission should be taken as approval of any individual adjustment beyond the cumulative approval of the two cases as being sufficient to establish the baseline for measuring the revenue requirement in this case.

Since its last rate case ten years ago, PacifiCorp has acquired significant new generation resources, including Cholla Unit 4, Hayden Units 1 and 2 and parts of Craig Units 1 and 2. Each of these generation units is now actively supplying the needs of PacifiCorp, each was acquired at a price lower than the price of comparable generating options, and each generates savings in various amounts when measured against PacifiCorp's avoided costs stated in present value terms. With these resources came packages of other resources and rights which enhance the ability of PacifiCorp to serve its customers. (Tr., pages 104-115 and 258.) PacifiCorp does not seek to include in

rates any of the other resources which it acquired after the test period (including the James River 50 MW cogeneration resource and a 470 MW combined cycle combustion turbine located at Hermiston, Oregon). (Tr., page 119.)

Removal from the revenue requirement of \$696,000 in franchise tax expenses for municipalities which charge more than 1% does not affect the amount of collections by these municipalities; and it brings the treatment of this expense item into adjustment for the entire Wyoming operation of PacifiCorp. PacifiCorp has committed to working with the affected municipalities regarding this change. (Tr., pages 22 and 33-34.) This action of PacifiCorp in this case complies with the explicit direction of the Commission given to all utilities by its letter of April 18, 1991. (Exhibit LAW-7 attached to the prefiled testimony of Lou Ann Westerfield (CAS Exhibit No. 6).) The affected municipalities are listed on PacifiCorp's Exhibit No. 35.

Removal of \$200,000 per year from the revenue requirement with respect to the demand component of Schedule 48T would better reflect the actual cost of service to large customers on that schedule which receive service at transmission voltage levels. (Tr., pages 20-23 and 32-33.)

b. Revenue allocation and price (rate) design. The proposed customer class revenue allocations are set forth in Exhibit A to the Stipulation, and the proposed prices themselves are set out at Exhibit B thereto. The stated goals of the parties in this portion of the settlement of the case were to move rates for each class toward paying that class's actual cost of service and to make progress in eliminating interclass subsidies. PacifiCorp further committed to beginning the process of making the tariff language for its eastern and western areas consistent. No class was to receive more than an 8.2% increase overall and "usage" schedules, designed on the basis of how the electricity is used rather than on the actual characteristics of the load itself, are to be eliminated.

There was much detailed testimony about the allocation and design of prices in this case, and the Consumer Advocate Staff generally supported PacifiCorp's proposals. PacifiCorp's Exhibit No. 36 provides the clearest illustration of the relative contributions which each class of customer will make toward paying what it costs to serve it. This exhibit makes a comparison of the cost of service and the revenues to be produced under the Stipulation. With the increases provided for in the Stipulation, residential customers in the eastern Wyoming service territory are nearly exactly covering their cost of service. Even after the relatively larger increases provided for in the Stipulation, residential customers in western Wyoming would still require an additional increase of 23.62% before they covered their costs. Likewise, irrigation customers in the eastern Wyoming territory would require a 28.94% increase before they covered their costs. Although such increases would be unacceptable because they would cause rate shock, they nevertheless illustrate some relative inequalities which should receive the continued attention of the parties and the Commission.

PacifiCorp testified that it sought to move class rates closer to the cost of service, and that, even though residential customers in the western area should receive much more than a 7% increase to reflect lower population density and higher distribution costs, it was limited in the Stipulation. Increases in fixed charges for residential service more accurately collect fixed costs. This change prevents fixed costs from being collected in variable (commodity) rates and prepares for commodity competition as it continues to develop. Various rates were redesigned to bring the eastern and western rate structures closer together. Some rates, such as a commercial water heating rate, were discontinued. Long closed to new entrants, these "type of use" rate schedules allowed similarly situated customers in the same town to pay greatly different rates for essentially the same service. They supported unfair subsidies and sent irrational price signals incompatible with fundamental fairness. Under the Stipulation, all similar customers in Wyoming will now have similarly structured service options. Other schedules, such as schedules 25 and 45 will now be opened to customers who wish a choice to match their demand intensive or energy intensive use more closely to their price schedules. This option was not formerly available. Rate increases, in general, were capped at 8.2%. Any larger increases would be caused by a customer migrating from a discontinued schedule to another schedule. (Tr., pages 126, 128, 130, 131, 139-140, 149-152, 163, 172, 208-209 and 293.)

In general, the Consumer Advocate Staff shared the rate design goals of PacifiCorp. It sought to eliminate subsidies and bring prices into alignment with costs on a class-by-class basis, although the Consumer Advocate Staff desired a more aggressive move to costs and away from subsidies which will eventually lead to predatory competition and bypass of the existing distribution system. (Tr., pages 283, 285, and 288.) Commenting on competition and the feasibility of making rates uniform for the eastern and western portions of the PacifiCorp territory in Wyoming, Consumer Advocate Staff witness David M. Mosier observed (Tr., pages 294 and 295):

"I believe that now the goal of uniform Wyoming prices between the east and the west is probably outdated and unrealistic in light of the changes on the horizon. Any utility which serves in a large geographic territory like PacifiCorp in Wyoming is bound to have cost differentials due to the timing of investments, different physical circumstances and other factors. Couple this with a merger of two utilities with significant preexisting cost differentials and closure to uniform rates will certainly result in rate subsidies."

"In PacifiCorp's case, if the residential rates were immediately combined without affecting the other classes, the citizens in Casper and other communities in the east would certainly be subsidizing the residents in Evanston and other communities in the west . . . Now, we find ourselves at the brink of something new for this industry. What it is may not be entirely clear, [but] . . . we could all be dealing with competitive options in the electric industry right down to the residential class in the very near future."

In connection with this, the Consumer Advocate Staff advocated that the Commission direct that a study and report to the Commission be made of the implications, including the magnitude of possible rate changes, associated with bringing the various communities' rates in line with their costs, not based on where they are located but on demographic and other actual cost considerations, with due regard being given to finding ways of mitigating the impact on individual customers. (Tr., pages 308 and 311.)

c. **Cost of capital.** The parties stipulated that PacifiCorp should be authorized to earn a 9.49% rate of return on Wyoming rate base, calculated as follows:

	Capital Structure	Rate	Weighted Average
Debt	47%	7.89%	
Preferred Stock	5%	7.59%	
Common Equity	48%	11.25%	
	<hr/> 100%		<hr/> 9.49%

This rate of return is that recommended by the Consumer Advocate Staff and represents a compromise among the various parties which found returns ranging from 9.04% to 9.79%. It is derived through a thorough and thoughtful examination of the various capital costing models available and utilizes a hypothetical capital structure because of the relatively large percentage of PacifiCorp's business (26%) not involved with electric utility operations. (See, prefiled testimony and exhibits of Bryce J. Freeman, Consumer Advocate Staff Exhibit No. 1; and Tr., pages 35 and 277-278.) The Consumer Advocate Staff found that the stipulated increase would allow PacifiCorp to earn a return of 8.45% on rate base overall while producing a return on equity of 9.09%, while meeting the United States Supreme Court tests announced in the *Hope* and *Bluefield* cases. (Consumer Advocate Staff Exhibits No. 1 and 8; and Tr., pages 223-224.)

d. **Rate stability.** In the Stipulation, PacifiCorp has agreed not to request a general rate increase with an effective date prior to July 1, 1998, and all parties ask therein that the Commission not adopt an AFOR provision (which would have the effect of allowing rates to increase on a regular, annual basis) in this case. PacifiCorp also agreed not to request authority to implement an AFOR with an effective date prior to July 1, 1998, and to include an unbundled rate proposal with its next general rate case or AFOR request. To bring this about, PacifiCorp will begin discussions with parties and others about AFOR and unbundling issues no later than September 30, 1996. As a further stability measure, PacifiCorp agreed that any rate increase that it seeks to make effective between July 1, 1998, and June 30, 1999, will be capped by a formula, stated in the Stipulation, which takes into account changes in PacifiCorp's fuel, O&M and A&G costs, changes in revenues and changes in the GDPPI. The Stipulation provides an "out" for extraordinary events such as accounting, legal and regulatory changes. The cap formula limits the actions of PacifiCorp only.

Rate stability is important to the customers of PacifiCorp and to the state of Wyoming as a whole. The PacifiCorp presence is large. PacifiCorp serves about

114,000 customers in Wyoming and generates about \$250 million per year in revenues. It provides service to about 67% of Wyoming's electric utility customers. The current period of rate stability has been relatively long. The last general rate increases approved for PacifiCorp came in 1987, and western service area prices have been stable or have actually declined over the last ten years. (Tr., pages 19-20 and 72.) Stability and predictability of rates were extremely important to industrial customers who must look to their own ability to remain competitive in their own markets. They viewed the introduction of an AFOR as a significant destabilizing influence, and, consequently, viewed the price increase moratorium and agreement not to advocate an AFOR as significant benefits of the Stipulation. They viewed the agreement to discuss alternative regulation and unbundling as a welcome initiative which will give those concerned with the development of the electric power industry in Wyoming the ability to prepare more thoroughly for the development of competition. (Tr., pages 182-188.) In their prefiled testimony, the various industrial intervenors were unanimous in advocating price stability and in urging the Commission not to approve an AFOR in this case. The Consumer Advocate Staff also listed stability as one of the major reasons behind its support for the Stipulation. (Tr., page 298.)

e. Customer service and operational performance limitations. In the Stipulation, PacifiCorp agreed to adopt, pending the conclusion of a Commission rulemaking on gas and electric service standards a series of operating performance standards applicable to residential and small commercial customers, excluding therefrom customers taking service under rate schedules 33, 46, 48T, 217 and 218. Stated on the basis of defined company service districts, these standards include [i] average outage duration of no more than 3 customer-hours per year, [ii] average outage frequency of no more than 2 outages per customer per year, [iii] average momentary interruptions of no more than 15 per year, and [iv] no more than four complaints per district per year. The Stipulation provides specific methods for calculating these operational indices and requires PacifiCorp to make detailed reports on the standards to the Commission on a quarterly basis.

In the Stipulation, PacifiCorp also agrees to minimum customer service performance standards pending the conclusion of the described Commission rulemaking on gas and electric service standards. These service limits include [i] providing corrective action on all trouble calls involving outages, partial power and hazardous and unsafe conditions, within 24 hours, [ii] following up on customer service requests within 5 working days, [iii] adhering to the schedule for handling line extension requests as specified in the Stipulation, [iv] setting meters and providing service in accordance with the company's agreement with its customer (but subject to obtaining needed permits and approvals), [v] making an 800 toll-free telephone number available for resolving customer complaints 24 hours per day with any voice mail to be returned within one hour during normal business hours, and [vi] making the PacifiCorp customer service system available 24 hours per day with voice mail available (if no customer representative is available) and with calls to be returned within one to 24 hours after PacifiCorp's business centers are fully operational. The Stipulation requires

PacifiCorp to make detailed reports on the customer service performance standards to the Commission on a quarterly basis.

Collectively, these indices and standards were developed as a response to PacifiCorp's closing of customer service counters in Wyoming and setting up large regional service centers to take their place. These indices and standards will help to assure that there is no deterioration in service because of the loss of counter personnel in Wyoming while the service centers are brought on line and made fully operational and pending the setting of general gas and electric utility service standards by the Commission. (Tr., pages 338-339.) They were developed by the Consumer Advocate Staff through statistical analysis and engineering expertise in service-related matters and are meant to be bare minimum parameters rather than goals to be attained. Large service schedules 33, 46, 48T, 217 and 218 are excluded because these customers have specialized individual service needs not adequately covered by standards and because they are statistically only one-tenth of 1% of all of PacifiCorp's Wyoming customers. Moreover, the larger industrial customers did not wish to be covered by these general standards. (Tr., pages 43, 46, 190 and 339-345.) The interim measures do not limit the ability of the customers -- large or small -- to file complaints; and they do not limit the ability of the Commission to investigate, hear or decide complaints and other service related matters. (Tr., page 230.) PacifiCorp will retain its own more stringent internal service and operational quality parameters which it will continue to strive to meet. (Tr., page 92.)

The closure of customer service counters is intended by PacifiCorp to be part of a service enhancement program. Rather than having service personnel available on weekdays during business hours only, the service centers will provide access to service personnel around the clock every day of the year. Rather than having only one place to pay bills in person, PacifiCorp is developing a network of local pay stations (local business establishments) at which receipts will be available and payments may be made more conveniently. The revision and centralization of PacifiCorp's service provision function is not a cost cutting measure. The move is expected to increase operating expenses by about \$268,000 per year and to require a net increase in plant investment of about \$6.7 million. (Tr., page 39, 40 and 267-268.) The services intended to be offered in conjunction with the new service centers include 24-hour telephone service, simplified payment and automated collections, automated service agreements and meter reading, expanded on-line customer history and the ability to develop various data-driven products and price offerings. (Transcript of public comment hearing, page 25.)

The City of Douglas urged the Commission to take a close look at PacifiCorp's counter closure initiative to make sure that it would be in the best interest of the customers. We are persuaded that the service center initiative has the potential, as noted above, to provide enhanced service to the local customer even if it means putting up with the loss of face-to-face contact between the customer and a local employee. However, that potential has not been realized yet because the centers are not operational and will not be fully operational for some time (Tr., pages 92 and 355); and

the Consumer Advocate Staff urges us to view the closures as a matter of concern and therefore evaluate the new system after one year to determine its efficiency (Transcript of public comment hearing, page 26).

f. **General.** The Consumer Advocate Staff echoed the sentiments of PacifiCorp and all of the intervenors in this case when it summed up its support of the Stipulation (Tr., page 298):

“The stipulation is a fair and reasonable compromise [which addresses] many interrelated and complex pricing, value and risk-related issues which may also have community or state development implications. It is the parties' collective judgment, as indicated by our willingness to sign the stipulation, that a protracted and costly hearing on the issues in this case is not in the public interest.”

“The acceptance and approval of the stipulation is in the public interest because, one, it gives the Commission a much needed and supportable increase -- excuse me, it gives the company a much needed and supportable increase in revenues; two, it stabilizes rates for two years for all customers; three, it moves prices generally toward and reflects the cost of providing service; four, it reflects the value of service, class risk, the ability to pay and other elements besides the cost of service; and, five, it places the company and customers in an improved position to react reasonably to an increasingly competitive electric utility industry.”

10. Issues arising outside of the context of the Stipulation. Most of the issues arising outside of the context of the Stipulation were discussed but generally rejected as a legitimate subject for the Commission's decision in this case. (See, e.g., the discussion of the formal adoption by the Commission in this Order of the PITA accords, Tr., pages 246 and 303-306.)

The issue of whether or not PacifiCorp should be allowed to convert from partial flow-through to full normalization (on a going forward basis only) for regulatory treatment of certain costs for federal income tax purposes was developed and supported. Full normalization treatment was used by both PacifiCorp and the Consumer Advocate Staff in developing their cases. The Consumer Advocate Staff advocates its adoption and testified that it and PacifiCorp both recommended its use. The advocated normalization would be accomplished on a going-forward basis; but some items which previously flowed through would continue for the remainder of their lives, but in the future, nothing new would be accorded flow through treatment. This would provide gradual introduction of the requested treatment and would not present a problem for PacifiCorp as a multijurisdictional utility. No previously authorized flow-through treatments have been altered by either the Consumer Advocate Staff or PacifiCorp for the purpose of preparing for this case. (Tr., pages 245, 246-247 and 271.) The Consumer Advocate Staff argued that converting to normalization provides “. . . better equity among generations of ratepayers, so that ratepayers in the early years do

not get the benefits of a transaction to the detriment of later ratepayers even though the expense of the transaction is included in the rates for many years to come." (Prefiled testimony of Denise K. Parrish, pages 16-17 (CAS Exhibit No. 2).)

11. Additional findings of fact. Many of the Commission's findings are stated above with the discussions of the individual issues to which they pertain. In addition to that, in contemplation of the entire record of the hearing in this case, the Commission also finds that the Stipulation is the result of good faith negotiations undertaken by PacifiCorp, the Consumer Advocate Staff, the Industrial Energy Consumers and the other intervenors in this case. All parties signed the Stipulation and advocated its adoption.

a. Rate elements of the Stipulation. We find that the revenue requirement, capital cost determination, proposed price changes and modifications to the structure and applicability of the various service offerings of PacifiCorp as presented by the Stipulation are supported by detailed, responsible, thoroughly researched and thoughtfully and comprehensively presented testimony and exhibits of high professional quality which are not controverted on the record. The adjustment to recognize the transmission level voltage service offered to customers on schedule 48T is fair and proper. Removing franchise taxes greater than 1% from the expense calculation in the revenue requirement is both fair and consistent with Commission policy on the subject. It will cause all PacifiCorp ratepayers in Wyoming to be treated equally with respect to these taxes. The new rate structure will allow PacifiCorp to earn an improved but not excessive rate of return on its investments, including its generation assets discussed above. In view of the entire record of the proceedings in this case, the AFOR contained in PacifiCorp's Application should not be approved. PacifiCorp has adequately supported its inclusion of these assets in its rate base. We find on the facts of the case that PacifiCorp has used judicious restraint in the rate increase that it seeks. It has throughout this proceeding remained demonstrably concerned with the interests of the customers which it serves.

b. Service and operational measurements. We find that the interim service and operational parameters are adequately supported in the record by substantial evidence and should be approved. Because the parameters respond to the initiative of PacifiCorp in closing customer counters and replacing them with modern service centers capable of providing enhanced service to the public, because creating those centers represents a major change in customer service operations, and because those centers are not yet operational, PacifiCorp should make a written report to the Commission on or before September 2, 1997, about its and its customers' experiences with the service centers, providing details of the operations and including conclusions concerning the success of the implementation of the service center concept (including, without limitation, data on customer acceptance and use of the centers).

c. Rate stability. We find that the rate stability provisions of the Stipulation will provide real and tangible benefits to the customers of PacifiCorp and,

because of the substantial size of PacifiCorp's operations in the state, additional benefits to the economy of Wyoming as a whole.

d. Tax normalization. The tax normalization proposed by PacifiCorp should be approved because it is in the long run fairer to all of PacifiCorp's ratepayers than continuation of the current system which denies benefits to ratepayers in the future who still retain the responsibility to pay for the asset to which the flowed through benefit would have pertained had normalization preserved that benefit.

12. Additional Conclusions of Law. Some of the conclusions of law necessary for the disposition of this case have been stated above, for the sake of clarity, in conjunction with the issues to which they pertain and will not be restated here.

a. Notice and procedure. We conclude that proper public notice of this proceeding was given in accordance with the APA, W. S. §§ 37-2-201, 37-2-202, and the relevant sections of the Commission's Rules. All interventions were properly granted. The public hearing was held and conducted pursuant to W. S. §§ 16-3-107, 16-3-108, 37-2-120, 37-2-201, 37-2-203, and the relevant sections of the Commission's Rules.

b. Rates and service. We conclude that the rates produced by the Stipulation are just and reasonable and that they produce no undue discrimination among customers. Although the rates are less than PacifiCorp may have been able to support in a fully contested case, they are neither inadequate nor unremunerative. We conclude likewise that the service offerings and tariffed service options to be offered pursuant to the Stipulation are just and reasonable and that they produce no undue discrimination among customers. We conclude that the capital cost determination of the Stipulation meets the relevant United States Supreme Court tests announced in the *Hope* and *Bluefield* cases. The Commission concludes that it is in the public interest to approve the Stipulation and all matters set forth therein, including the additional requirement that PacifiCorp report on its experience with the operation of its new centralized service centers.

c. Normalization. It is in the public interest to approve the tax normalization proposal described above.

d. General. The findings of the Commission set forth hereinabove are supported by substantial evidence on the record of this proceeding.

13. The precedential value of this decision. The Stipulation represents a reasonable public interest settlement of this case. In developing their positions and presentations in the case, the parties have advocated a number of price setting concepts and issues of fact which have not been specifically ruled upon by the Commission. Therefore, the approval of the Stipulation should not be taken as approval of any price setting (ratemaking) concept, issue or theory presented by the parties unless it has been ruled upon specifically in this Order.

NOW, THEREFORE, IT IS HEREBY ORDERED THAT:

1. The Stipulation, in the form attached to this Order, is hereby approved in its entirety effective as of July 1, 1996, and PacifiCorp shall make the reports required thereby and otherwise comply with its terms and conditions.

2. The Commission's Interim Order of June 25, 1996, including the direction to PacifiCorp to file with the Commission a tariff carrying into effect the Stipulation and the provisions of paragraph 2 of the Interim Order regarding optional migration by residential customers between applicable residential service tariffs during the first 12 months of their operation, is hereby confirmed, and the authority granted therein is hereby made permanent. This Order is hereby substituted for the Interim Order.

3. PacifiCorp shall implement the tax normalization accounting changes described hereinabove, effective July 1, 1996, but on a going forward basis only.

4. PacifiCorp shall make a written report to the Commission on its customer service centers on or before September 2, 1997, addressing at a minimum the subjects set forth with respect to it above in this Order.

5. All Confidential Information in this case shall be disposed of in accordance with paragraph 6(e) of the Commission's April 10, 1996, General Protective Order.


6. This Order is effective immediately.

Made and Entered at Cheyenne, Wyoming, on August 23, 1996.

PUBLIC SERVICE COMMISSION



STEVE ELLENBECKER, Chairman



DOUG DOUGHTY, Deputy Chairman



KRISTIN H. LEE, Commissioner



Stephen G. Oxley, Secretary and Chief Counsel

Rocky Mountain Power
Exhibit 13.9
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
PGE Exhibit 1740; Oregon Docket No. UE 416

September 2023

Greg Batzler

From: Agnew, Mark [REDACTED]
Sent: Friday, July 21, 2023 10:26 AM
To: Greg Batzler; Keenan Roylance
Subject: EEI Survey - Normalization

This email is from someone outside PGE.

Please take care when opening links, attachments or responding to this email.

Dear Greg and Keenan,

According to an informal survey conducted by the Edison Electric Institute in July 2023, in which 31 companies, who collectively represent 43 of the 50 possible state jurisdictions and District of Columbia responded, approximately 85% reported using the full normalization method.

Please feel free to use this information as you deem necessary.

Mark

Mark Agnew
Sr. Director, Financial Analysis
Edison Electric Institute



Rocky Mountain Power
Exhibit 13.10
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
WIEC Response to RMP Data Request 3.1 with Attachment

September 2023

WIEC's Response to RMP's Third Set of Data Requests
Docket No. 20000-633-ER-23

RMP 3.1: Refer to WIEC Exhibit No. 202.6, Tab Exhibit WIEC 202 8, Column F: The total company amounts in Column F are hard coded. Please provide a detailed reconciliation, with formulas intact, of the total company amounts in Tab Exhibit WIEC 202 8 to the total company amounts in Tabs Attach WIEC 4.11 and Attach WIEC 4.12.

RESPONSE:

Please refer to Attachment RMP 3.1 for the requested information. The state tax accumulated deferred income taxes ("ADIT") balances in Attach WIEC 4.12 were adjusted in the Pro Forma Additions Update adjustment sponsored by WIEC Witness Higgins. The impact of the Pro Forma Additions Update adjustment on the State ADIT balances, including a reconciliation between WIEC Exhibit No. 200.10 and Attach WIEC 4.12, is included in the responsive attachment.

Respondent: Bradley G. Mullins

Witness: Bradley G. Mullins

Rocky Mountain Power
Wyoming General Rate Case - December 2024
WIEC State Income Tax Flow Through Adjustment

Reconciliation to WIEC Exhibit No. 200.10

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>WYOMING ALLOCATED</u>	<u>Attach WIEC 4.11</u>	<u>Higgins Adjustments</u>	<u>Adjusted</u>
Adjustment to Tax Expense:									
Reverse Deferred State Income Tax Expense	41110/41010	1	6,695,935	SO	12.67%	848,082	6,695,935		6,695,935
Reverse Deferred State Income Tax Expense	41110/41010	1	52,436,929	SCHMDEXP	13.09%	6,863,693	52,436,929		52,436,929
Reverse Deferred State Income Tax Expense	41110/41010	1	5,136,914	CIAC	8.94%	459,370	5,136,914		5,136,914
Reverse Deferred State Income Tax Expense	41110/41010	1	(7,459,826)	SNP	12.50%	(932,229)	(7,459,826)		(7,459,826)
Reverse Deferred State Income Tax Expense	41110/41010	1	1,347,644	WYP	100.00%	1,347,644	1,347,644		1,347,644
Reverse Deferred State Income Tax Expense	41110/41010	1	240,220	SE	14.55%	34,944	240,220		240,220
Reverse Deferred State Income Tax Expense	41110/41010	1	(6,664,312)	SG	13.63%	(908,057)	(6,664,312)		(6,664,312)
Reverse Deferred State Income Tax Expense	41110/41010	1	(62,971,188)	TAXDEPR	14.99%	(9,436,908)	(62,971,188)		(62,971,188)
Reverse Deferred State Income Tax Expense	41110/41010	1	(2,164,581)	GPS	12.67%	(274,158)	(2,164,581)		(2,164,581)
Reverse Deferred State Income Tax Expense	41110/41010	1	244,165	WYU	100.00%	244,165	244,165		244,165
Reverse Deferred State Income Tax Expense	41110/41010	1	-	DGU	3.70%	-	-		-
Total Tax Expense (Post-tax, not Grossed-up)			<u>(13,158,100)</u>			<u>(1,753,453)</u>	<u>(13,158,100)</u>		<u>(13,158,100)</u>
Rate Base:							<u>Attach WIEC 4.12</u>	<u>Higgins Adjustments</u>	<u>Adjusted</u>
Adjustment to ADSIT:									
Reverse ADSIT	190/281/282/203	1	(1,519,984)	SE	14.55%	(221,104)	(1,519,984)		(1,519,984)
Reverse ADSIT	190/281/282/203	1	78,134,087	WYP	100.00%	78,134,087	78,279,577	(145,490)	78,134,087
Reverse ADSIT	190/281/282/203	1	(29,187,737)	SO	12.67%	(3,696,807)	(25,178,040)	(4,009,697)	(29,187,737)
Reverse ADSIT	190/281/282/203	1	(931,149)	BADDEBT	8.28%	(77,068)	(931,149)		(931,149)
Reverse ADSIT	190/281/282/203	1	(7,108,232)	SG	13.63%	(968,544)	(4,950,903)	(2,157,329)	(7,108,232)
Reverse ADSIT	190/281/282/203	1	(370,601)	SNPD	8.94%	(33,141)	(370,601)		(370,601)
Reverse ADSIT	190/281/282/203	1	(233,366)	TROJD	13.79%	(32,182)	(233,366)		(233,366)
Total Reversals			<u>38,783,018</u>			<u>73,105,240</u>	<u>45,095,534</u>		<u>38,783,018</u>
Record Regulatory Liability									
ADSIT Refund Liability						(73,105,240)			
Less: Reversed Test Period DSIT in ADSIT						876,727			
ADSIT Refund Liability Gross-up						(24,364,853)			
Regulatory Liability:						<u>(96,593,366)</u>			
Net Rate Base:						<u>(23,488,126)</u>			
Regulatory Liability Amortization:									
Amortization Expense Benefit									
3-year Amortization (Pre-Tax, Grossed-up)	**	1	(32,197,789)	WY	100.00%	(32,197,789)			
Rate Base Impact of Amortization									
Reduce ADSIT Refund Liability	**	1	16,098,894	WY	100.00%	16,098,894			

Gross-up Factor
0.747759

Description of Adjustment:

This adjustment reverses Deferred State Income Taxes and Records Accumulated Deferred State Income Taxes to a Regulatory Liability, subject to a 3-year Amortization

Book-Tax Differences	Acct. #		STATE Allocator			
	SAP	SCH M	Total Company	Protocol Factor	%	Wyoming Allocated
Capitalized labor and benefit costs	287605	105.100	228,878	SO	12.6656%	41,654
Book Depreciator	287605	105.120	(283,974,248)	SCHMDEXP	0.0000%	(37,170,679)
CIAC	287605	105.130	(2,819,218)	CIAC	8.9425%	(2,487,743)
Avoided Costs	287605	105.142	(43,482,840)	SNP	12.4967%	(5,433,900)
Reg Asset - FAS 158 Pension Liab Adj	287738	320.270	(7,761,751)	SO	12.6656%	(983,074)
Reg Asset - FAS 158 Post Ret. Liab	287739	320.280	3,826,997	SO	12.6656%	484,713
Reg Asset - UT Wildland Fire Protector	286894	415.261	(245,386)	OTHER	0.0000%	0
Reg Asset - Electric Vehicle Charging Infrastructure - U1	286937	415.270	1,925,933	OTHER	0.0000%	0
Reg Asset - Environmental Costs - WA	287591	415.301	(13,834)	WA	0.0000%	0
Reg Asset - 2020 GRC - Meters Replaced by AMI - OF	286930	415.426	(870,103)	OTHER	0.0000%	0
Reg Asset - Goodnoe Hills Settlement - WY	287597	415.703	(4,225)	WYP	100.0000%	(5,225)
Reg Liability - WA - Accelerated Depreciator	287206	415.710	(5,009,867)	WA	0.0000%	0
Reg Asset - Cholla U4 - O&M Depreciation Savings - IF	286932	415.723	198,139	IDU	0.0000%	0
Contra Reg Asset - Cholla U4 Closure - OF	286925	415.728	128,310	OR	0.0000%	0
Contra Reg Asset - Cholla U4 Closure - U1	286926	415.729	78,175	UT	0.0000%	0
Contra Reg Asset - Cholla U4 Closure - WY	286927	415.730	(90,100)	WYP	100.0000%	(90,100)
Reg Asset - Cholla Unrecovered Plant - C/	286896	415.734	(59,298)	CA	0.0000%	0
Reg Asset - Cholla Unrecovered Plant - WY	286898	415.736	(936,717)	WYP	100.0000%	(936,717)
Reg Asset - Solar Incentive Program - UT - Noncurrn	287971	415.888	(4,604)	OTHER	0.0000%	0
Reg Asset - Deferred Excess NPC - OR - Noncurrn	287882	415.876	(5,709,692)	OTHER	0.0000%	0
Reg Asset - Carbon Plant Decommissioning/Inventory - WY	286899	415.939	128,650	WYP	100.0000%	128,650
Reg Asset - Demand Side Management - Noncurrn	287614	430.100	7,946,014	OTHER	0.0000%	0
Trapper Mine Contract Obligation	287216	605.715	(1,298,797)	SE	14.5465%	(188,929)
Reg Liability - Bridger Mine Accelerated Depreciation - O	287047	610.150	(894,814)	OR	0.0000%	0
Reg Liability - Plant Closure Cost - WY	287045	610.155	(333,329)	WA	0.0000%	0
Reg Liability - OR Direct Access 5 Year Opt Ou	287212	705.245	415,424	OTHER	0.0000%	0
Reg Liability - Sale of REC - UT - Noncurrn	287271	705.336	(431,527)	UT	0.0000%	0
Reg Liability - Excess Income Tax Deferral - WY	287055	705.344	615,648	OTHER	0.0000%	0
Reg Liability - Excess Income Tax Deferral - WY	287056	705.345	207,551	OTHER	0.0000%	0
Reg Liability - Cholla Decommissioning - C/	287174	705.410	7,685	CA	0.0000%	0
Reg Liability - Cholla Decommissioning - IF	287175	705.411	(636,534)	IDU	0.0000%	0
Reg Liability - Cholla Decommissioning - U1	287176	705.412	128,554	OR	0.0000%	0
Reg Liability - Cholla Decommissioning - U	287177	705.413	214,003	UT	0.0000%	0
Reg Liability - Cholla Decommissioning - WY	287178	705.414	(151,903)	WYP	100.0000%	(151,903)
Reg Liability - GHG Allowance Revenues - CA - Noncurrn	287238	705.420	(299,129)	OTHER	0.0000%	0
Reg Liability - Bridger Mine Accelerated Depreciation - WY	287048	705.425	(626,813)	WA	0.0000%	0
Bridger Cost Underground Mine Cost Depletic	287055	910.805	4,095	SG	12.6656%	(1,859)
PP&E Adjustment - SG	-----	-----	1,254,385	SG	13.6257%	170,918
PP&E Adjustment - SO	-----	-----	1,170,472	SO	12.6656%	148,248
Cholla 4 Retirement - Nonunion Severanc	-----	-----	(78,099)	SG	13.6257%	(10,642)
Cholla 4 Retirement - Safe Harbo	-----	-----	(3,283)	SG	13.6257%	(447)
Wyoming Test Energy Deferra	-----	-----	(1,879)	WYP	100.0000%	(1,879)
Klamath Asset Transfer	-----	-----	(234,800)	SG	13.6257%	(31,993)
DIT Expense on Temporary Book-Tax Differences (Additions)411			(362,384,355)			(46,520,907)
Repair Deductor	287605	105.122	38,319,380	SG	13.6257%	5,221,271
Tax Depreciator	287605	105.125	341,023,659	TAXDEXPR	14.9861%	51,106,052
AFUDC - Debt	287605	105.141	57,827,565	SNP	12.4967%	7,226,511
AFUDC - Equity	287605	105.141b	57,827,565	SNP	12.4967%	7,226,511
Basis Intangible Difference - Deb	287704	105.143	79,617	SNP	12.4967%	9,949
Gain / (Loss) on Prop. Disposition	287605	105.152	460,431	SGS	12.6656%	58,316
Contract Liability Basis Adjustment - Chehalis Mitigation Obligatic	287605	105.153	9	GP	13.6257%	1
Removal Costs	287605	105.175	11,281,869	GPS	12.6656%	1,426,398
Tax Depletion-SRC	287771	110.205	10,646	SE	14.5465%	1,549
Reg Liability - FAS 158 Post Retirement	287198	320.279	(3,835,289)	SO	12.6656%	(485,763)
Reg Asset - Pension Settlement - OF	286887	320.286	1,043,190	OTHER	0.0000%	0
Reg Asset - Pension Settlement - U1	286888	320.287	391,652	OTHER	0.0000%	0
Reg Asset - Pension Settlement - WY	286889	320.288	478,637	WYP	100.0000%	478,637
Reg Asset - WY Wind Test Energy Deferral	286936	415.255	(2,764)	OTHER	0.0000%	0
Reg Asset - Fire Risk Mitigation - CA	286917	415.260	(1,226,462)	OTHER	0.0000%	0
Reg Asset - Environmental Costs	287634	415.300	(2,367,523)	CA	12.6656%	(299,861)
Contra Reg Asset - Deer Creek Abandonment - C/	287841	415.411	325,359	SO	0.0000%	0
Contra Reg Asset - Deer Creek Abandonment - IF	287842	415.412	70,406	IDU	0.0000%	0
Contra Reg Asset - Deer Creek Abandonment - Of	287843	415.413	795,173	OR	0.0000%	0
Contra Reg Asset - Deer Creek Abandonment - U	287844	415.414	227,086	UT	0.0000%	0
Contra Reg Asset - Deer Creek Abandonment - WY	287845	415.415	1,469,868	WA	0.0000%	0
Reg Asset - CA GHG Allowance	287975	415.655	209,807	OTHER	0.0000%	0
Reg Asset - Preferred Stock Redemption Loss U1	287996	415.676	164	OTHER	0.0000%	0
Reg Asset - Preferred Stock Redemption Loss WY	287958	415.676	(1,457)	OTHER	0.0000%	0
Reg Asset - Pref Stock Redemp Loss WA	287601	415.677	(446)	OTHER	0.0000%	0
Injuries, Damages & Insurance Reserve	287970/287341	415.815/910.530	(21,563,505)	SO	12.6656%	(2,731,151)
Reg Asset - Pension Settlement - C/	286928	415.833	170,170	OTHER	0.0000%	0
Reg Asset - CA Mobile Home Park Converter	287967	415.862	(4,263)	OTHER	0.0000%	0
Reg Asset - Deferred Excess NPC - CA - Noncurrn	287781	415.870	1,248	OTHER	0.0000%	0
Reg Asset - Deferred Excess NPC - UT - Noncurrn	287896	415.875	3,978,616	OTHER	0.0000%	0
Reg Asset - UT - Liquidation Damages JB4, N1&	287899	415.878	(8,605)	UT	0.0000%	0
Reg Asset - WY Liquidation Damages N1	287903	415.879	(1,403)	WYP	100.0000%	(1,403)
Reg Asset - Deferred Excess NPC - ID - Noncurrn	287892	415.892	(3,913)	OTHER	0.0000%	0
Reg Asset - REC Sales Deferral - OR - Noncurrn	287978	415.906	63,521	OTHER	0.0000%	0
Reg Asset - Depreciation Increase - IC	287981	415.920	(856,862)	IDU	0.0000%	0
Reg Asset - Depreciation Increase - U1	287982	415.921	(31,481)	UT	0.0000%	0
Reg Asset - Depreciation Increase - WY	287983	415.922	(1,000,630)	WYP	100.0000%	(1,000,630)
Reg Asset - Carbon Unrecovered Plant - U1	287985	415.924	1,212,730	UT	0.0000%	0
Reg Asset - Carbon Decommissioning - C/	287994	415.929	(85,045)	CA	0.0000%	0
Reg Liability - Steam Decommissioning - IF	287221	415.933	(341,138)	IDU	0.0000%	0
Reg Liability - Steam Decommissioning - U	287222	415.934	(4,192,908)	UT	0.0000%	0
Reg Liability - Steam Decommissioning - WY	287223	415.935	(1,393,775)	WYP	100.0000%	(1,393,775)
Reg Asset - Carbon Plant Decommissioning /Inventor	287935	415.936	(141,319)	SG	13.6257%	(19,256)
Reg Liability - Sale of REC - WY - Noncurrn	287272	705.337	41,105	OTHER	0.0000%	0
FAS 158 Pension Liabilty	287460	720.800	(2,363,399)	SO	12.6656%	(299,339)
FAS 158 - Funded Pension Assse	287569	720.805	6,451,254	SO	12.6656%	817,091
FAS 158 Post-Retirement Assse	286909	720.815	374,094	SO	12.6656%	47,381
PP&E Adjustment - SG	-----	-----	(3,044,251)	SG	13.6257%	(414,800)
PP&E Adjustment - SO	-----	-----	(10,522,403)	SO	12.6656%	(1,332,727)
DIT Expense on Temporary Book-Tax Differences (Deductions)412			439,172,948			61,660,622
Total DIT Expense on Temporary Book-Tax Difference:			76,788,593			15,139,715
Deferred Income Tax Expense - Solar ITC Basis Adjustmer	-----	999998	18,893	SG	13.6257%	2,574
Subtotal: Deferred Only Tax Adjustment			18,893			2,574
Depreciation Flow-Through ~ C/	-----	105.1151	(289,063)	CA	0.0000%	0
Depreciation Flow-Through ~ FERC	-----	105.1152	(175,670)	FERC	0.0000%	0
Depreciation Flow-Through ~ IF	-----	150.1153	(245,787)	IDU	0.0000%	0
Depreciation Flow-Through ~ OF	-----	105.1154	(1,417,489)	OR	0.0000%	0
Depreciation Flow-Through ~ OTHER	-----	105.1155	(1,747,053)	OTHER	0.0000%	0
Depreciation Flow-Through ~ U	-----	105.1156	2,321,380	UT	0.0000%	0
Depreciation Flow-Through ~ WY	-----	105.1157	357,404	WA	0.0000%	0
Depreciation Flow-Through ~ WYF	-----	105.1158	(4,324,094)	WYP	100.0000%	(4,324,094)
Depreciation Flow-Through ~ WYU	-----	105.1159	(1,322,290)	WYU	100.0000%	(1,322,290)
Subtotal: Jurisdictional Flowthrough			(6,863,662)			(5,646,384)
Excess Deferred Income Tax Amortization ~ C/	-----	-----	(2,597,043)	CA	0.0000%	0
Excess Deferred Income Tax Amortization ~ IF	-----	-----	(2,926,587)	IDU	0.0000%	0
Excess Deferred Income Tax Amortization ~ OF	-----	-----	(10,672,729)	OR	0.0000%	0
Excess Deferred Income Tax Amortization ~ WY	-----	-----	(10,439,100)	WA	0.0000%	0
Excess Deferred Income Tax Amortization ~ WY	-----	-----	(7,406,667)	WYP	100.0000%	(7,406,667)
Excess Deferred Income Tax Amortization ~ U	-----	-----	(41,197,987)	UT	0.0000%	0
Excess Deferred Income Tax Amortization ~ FERC	-----	-----	(263)	FERC	0.0000%	0
Subtotal: Excess Deferred Income Tax			(75,240,376)			(7,406,667)
Total Deferred Income Tax Expense			(5,296,452)			2,089,238
ACCUM DEF ITC - UPL POST 71 46 (F)2) Amortizator	285610	-----	(467,343)	DGU	3.6982%	(17,283)
ACCUM DEF ITC - UPL IDAHO 46(F)2) Amortizator	285690	-----	(3,956)	DGU	3.6982%	(146)
Investment Tax Credit Amortization			(471,299)			(17,429)

Total Company				
Federal @ Statutory	Federal Benefit of State Tax	Subtotal: Federal Deferred Tax Expense	State Deferred Tax Expense @ 4.54%	Total
280,903	(12,753)	268,150	60,728	328,878
(242,549,874)	11,011,715	(231,538,159)	(52,438,929)	(283,977,084)
(23,761,056)	1,078,752	(22,682,304)	(5,136,914)	(27,819,218)
(37,139,728)	1,686,144	(35,453,584)	(8,029,256)	(43,482,840)
(6,629,496)	300,979	(6,328,517)	(1,433,234)	(7,761,751)
(148,400)	148,400	3,120,329	706,668	3,826,997
(245,386)	9,516	(235,870)	(45,313)	(245,386)
(74,682)	1,644,985	(73,037)	355,630	1,925,933
(11,816)	536	(11,280)	(2,554)	(13,834)
(743,175)	33,740	(709,435)	(160,668)	(870,103)
(4,463)	(4,463)	(4,250)	(965)	(5,225)
(4,279,047)	194,269	(4,084,778)	(925,089)	(5,009,867)
(7,683)	169,235	(7,514)	36,587	198,139
(4,976)	109,593	(4,866)	104,617	128,310
(3,031)	63,740	(2,398)	14,435	78,175
(76,957)	3,494	(73,463)	(16,537)	(90,100)
(50,948)	2,300	(48,348)	(10,950)	(59,298)
(800,072)	36,323	(763,749)	(172,968)	(936,717)
(3,933)	179	(3,754)	(850)	(4,604)
(4,876,784)	221,406	(4,655,378)	(1,054,314)	(5,709,692)
109,893	14,989	104,894	23,7	

Account		Book Tax Difference		State Allocation			
SAP	FERC	Description	#	Total Company	Protocol Factor	%	Wyoming Allocated
266801	190	PMI CWIP Adjustment	105.150	510,689	SE	14.5465%	74,287
267045	190	Reg Liability - WA Plant Closure Costs	610.155	1,165,662	WA	0.0000%	0
267047	190	Reg Liability - Bridger Mine Accelerated Depreciation - OR	610.150	3,133,852	OR	0.0000%	0
267048	190	Reg Liability - Bridger Accelerated Depreciation - WA	705.425	2,193,838	WA	0.0000%	0
267049	190	Reg Liability - CA Klamath River Dams Removal	705.352	64,195	CA	0.0000%	0
267051	190	Reg Liability - Excess Income Tax Deferral - CA	705.340	(2,260)	OTHER	0.0000%	0
267055	190	Reg Liability - Excess Income Tax Deferral - WA	1,150.138	1,150,138	OTHER	0.0000%	0
267056	190	Reg Liability - Excess Income Tax Deferral - WY	705.345	59,120	OTHER	0.0000%	0
267061	190	Reg Liability - Protected PP&E EDIT Deferral - CA	705.346	425,318	CA	0.0000%	0
267062	190	Reg Liability - Protected PP&E EDIT Deferral - ID	705.347	1,854,646	IDU	0.0000%	0
267063	190	Reg Liability - Protected PP&E EDIT Deferral - OR	705.348	439	OR	0.0000%	0
267064	190	Reg Liability - Protected PP&E EDIT Deferral - UT	705.349	4,438,735	UT	0.0000%	0
267065	190	Reg Liability - Protected PP&E EDIT Deferral - WA	705.350	2,968,187	WA	0.0000%	0
267067	190	Accrued Payroll Taxes - PMI	505.4501	123,885	SE	14.5465%	18,021
267111	190	Reg Liability - Protected PP&E EDIT - CA	705.287	7,920,589	CA	0.0000%	0
267112	190	Reg Liability - Protected PP&E EDIT - ID	705.288	20,293,225	IDU	0.0000%	0
267113	190	Reg Liability - Protected PP&E EDIT - OR	705.289	88,775,286	OR	0.0000%	0
267114	190	Reg Liability - Protected PP&E EDIT - WA	705.290	20,497,838	WA	0.0000%	0
267115	190	Reg Liability - Protected PP&E EDIT - WY	705.291	45,341,328	WYP	100.0000%	45,341,328
267116	190	Reg Liability - Protected PP&E EDIT - UT	705.292	156,974,992	UT	0.0000%	0
267121	190	Reg Liability - Non-Protected PP&E EDIT - CA	705.294	303,039	CA	0.0000%	0
267124	190	Reg Liability - Non-Protected PP&E EDIT - WA	705.296	4,873,122	WA	0.0000%	0
267173	190	Reg Liability - Steam Decommissioning - WA	415.942	1,389,608	WA	0.0000%	0
267174	190	Reg Liability - Cholla Decommissioning - CA	705.410	45,204	CA	0.0000%	0
267175	190	Reg Liability - Cholla Decommissioning - IDU	705.411	530,415	IDU	0.0000%	0
267176	190	Reg Liability - Cholla Decommissioning - OR	705.412	1,664,233	OR	0.0000%	0
267177	190	Reg Liability - Cholla Decommissioning - UT	705.413	4,022,820	UT	0.0000%	0
267178	190	Reg Liability - Cholla Decommissioning - WY	705.414	224,148	WYP	100.0000%	224,148
267180	190	Accrued Payroll Tax	505.450	123,885	SE	14.5465%	18,021
267191	190	Reg Liability - Excess Deferred Income Taxes - CA	705.280	79,948	CA	0.0000%	0
267195	190	Reg Liability - Excess Deferred Income Taxes - WA	705.284	246,661	WA	0.0000%	0
267199	190	Bad Debt FIN 48 Balances	220.101	(40,763)	BADDEBT	8.2767%	(3,374)
267200	190	Reg Liability - WA Decoupling Mechanism	705.267	18,696	OTHER	0.0000%	0
267206	190	Reg Liability - WA - Accelerated Depreciation	415.710	2,504,932	WA	0.0000%	0
267209	190	Reg Liability - Energy Savings Assistance (ESA) - CA	705.266	82,907	OTHER	0.0000%	0
267211	190	Deferred Revenue - Other	425.226	132,201	OTHER	0.0000%	0
267212	190	Reg Liability - OR Direct Access 5 Year Opt Out	705.245	671,641	OTHER	0.0000%	0
267214	190	Contra Receivable from Joint Owners	910.245	8,101	SE	12.6656%	1,026
267216	190	Trapper Mine Contract Obligation	605.715	3,358,218	SE	14.5465%	488,502
267219	190	Chenalis WA ESEC CO2 Mitigation Obligation	715.810	57,750	SG	13.6257%	7,869
267225	190	ARO/Reg Diff - Trojan - WA	605.102	15,124	WA	0.0000%	0
267227	190	Reg Liability - Solar Incentive Program - UT - Noncurrent	705.531	3,023,581	OTHER	0.0000%	0
267231	190	Reg Liability - Deferred Excess NPC - WA - Noncurrent	705.519	680,043	OTHER	0.0000%	0
267233	190	Reg Liability - Deferred Excess NPC - OR - Noncurrent	705.515	(13,366,784)	OTHER	0.0000%	0
267235	190	Reg Liability - CA Def NPC - Noncurrent	705.511	574,598	OTHER	0.0000%	0
267237	190	Reg Liability - Noncurrent Reclass - Other	705.755	18,031	OTHER	0.0000%	0
267238	190	Reg Liability - GHG Allowance Revenues - CA - Noncurrent	705.420	1,251,125	OTHER	0.0000%	0
267252	190	Reg Liability - Sale of REC - WA	705.263	(17,528)	OTHER	0.0000%	0
267253	190	Reg Liability - Injuries & Damages Reserve - OR	705.400	3,271,419	OR	0.0000%	0
267254	190	Reg Liability - CA Property Insurance Reserve	705.500	348,894	CA	0.0000%	0
267256	190	Reg Liability - Property Insurance Reserve - WA	705.452	2,628	WA	0.0000%	0
267257	190	Reg Liability - Property Insurance Reserve - ID	705.453	274,582	IDU	0.0000%	0
267258	190	Reg Liability - Property Insurance Reserve - UT	705.454	165,395	UT	0.0000%	0
267259	190	Reg Liability - Property Insurance Reserve - WY	705.455	229,165	WYP	100.0000%	229,165
267271	190	Reg Liability - Sale of REC - UT - Noncurrent	705.336	1,052,993	OTHER	0.0000%	0
267272	190	Reg Liability - Sale of REC - WY - Noncurrent	705.337	99,267	OTHER	0.0000%	0
267274	190	Reg Liability - Sale of RECs - OR	705.261	162,561	OTHER	0.0000%	0
267281	190	CA AMT Credit	-----	275,386	OTHER	0.0000%	0
267298	190	ERC Impairment Reserve	205.210	501,566	SE	14.5465%	72,960
267299	190	Reg Liability - OR Energy Conservation Charge	705.265	1,248,738	OTHER	0.0000%	0
267302	190	PMI EITF04-06 Pre-Stripping Cost	610.114	1,408,432	SE	14.5465%	204,877
267304	190	OR Reg Asset/Liability Consolidation Account	610.146	(112,240)	OR	0.0000%	0
267324	190	Deferred Compensation Plan Benefits - PPL	720.200	1,579,251	SO	12.6656%	200,022
267326	190	Accrued Severance	720.500	744,224	SO	12.6656%	94,261
267327	190	Pension/Retirement Accrual	720.300	359,241	SO	12.6656%	45,500
267332	190	Accrued Vacation	505.600	7,620,835	SO	12.6656%	965,226
267337	190	MCI FOG Wire Lease	715.105	481,454	SG	13.6257%	65,601
267338	190	Transmission Service Deposits	415.110	678,465	SG	13.6257%	92,445
267340	190	Bad Debt Allowances	220.100	5,069,089	BADDEBT	8.2767%	419,553
267341/267970	190	Injuries and Damage reserve	910.530/415.815	5,089,425	SE	12.6656%	644,607
267370	190	Unearned Joint Use Pole Contact Revenue	425.215	1,551,547	SNPD	8.9425%	138,748
267371	190	DTA 930 100 OR BETC	930.100	432,840	SG	13.6257%	58,977
267389	190	Reg Liability - DSM Balance Reclass	610.145	714,661	OTHER	0.0000%	0
267414	190	Accrued Retention Bonus	3,585	3,585	SO	12.6656%	454
267415	190	Inventory Reserve	205.200	455,464	SNPD	8.9425%	40,730
267417	190	Accrued Royalties	605.710	549,437	OTHER	0.0000%	0
267418	190	Reg Liability- Alternative Rate for Energy Program (CARE) - CA	705.241	62,531	OTHER	0.0000%	0
267430	190	Accrued Royalties - State	505.125	3,751,385	SE	14.5465%	545,694
267437	190	Net Operating Loss - State	-----	40,969,012	SO	12.6656%	5,188,978
267441	190	Trojan Decommissioning Costs	605.100	1,263,807	TROJD	13.7903%	174,282
267449	190	Net Operating Loss - State (Federal Detriment)	-----	(8,642,464)	SO	12.6656%	(1,094,621)
267461	190	FAS 158 Post-Retirement Liability	720.810	(9,821,567)	SO	12.6656%	(1,243,962)
267473	190	Reg Liability - Blue Sky Program - OR	705.270	380,988	OTHER	0.0000%	0
267474	190	Reg Liability - Blue Sky Program - WA	705.271	124,309	OTHER	0.0000%	0
267475	190	Reg Liability - Blue Sky Program - CA	705.272	36,080	OTHER	0.0000%	0
267476	190	Reg Liability - Blue Sky Program - UT	705.273	1,244,790	OTHER	0.0000%	0
267477	190	Reg Liability - Blue Sky Program - ID	705.274	39,267	OTHER	0.0000%	0
267478	190	Reg Liability - Blue Sky Program - WY	705.275	166,784	OTHER	0.0000%	0
267482	190	PMI-Fuel Cost Adjustment	205.025	2,475,923	SE	14.5465%	360,160
267491	190	DTA BETC Generated Credits	930.100	(127,206)	SG	13.6257%	(17,333)
267681	190	Bridger Coal Company Extraction Taxes Payable - PMI	920.110	2,318,414	SE	14.5465%	337,248
267706	190	Coal Mine Development Expense - PMI	610.000	(505,701)	SE	14.5465%	(73,562)
267720	190	PMI Development Cost Amortization	610.100	(91,742)	SE	14.5465%	(13,345)
267722	190	Vacation Accrual - PMI	505.510	118,892	SE	14.5465%	17,295
268600	190	DTA 505.525 PMI Accrued Severance	505.450	15,353	SE	14.5465%	2,233
267723	190	Sec. 263A Inventory Change - PMI	205.411	642,734	SE	14.5465%	93,495
267726	190	Book Depreciation - PMI	105.121	(4,817,364)	SE	14.5465%	(700,757)
267735	190	Bridger Coal Company Underground Mine Cost Depletion	910.905	(132,704)	SE	14.5465%	(19,304)
267937	190	Sick Leave Accrual-PMI	505.601	6,638	SE	14.5465%	966
267938	190	Inventory Reserve - PMI	205.205	31,375	SE	14.5465%	4,564
				433,877,574			52,970,621
-----	282	Accumulated Deferred Income Taxes (CA)	-----	(70,054,178)	CA	0.0000%	0
-----	282	Accumulated Deferred Income Taxes (IDU)	-----	(183,329,559)	IDU	0.0000%	0
-----	282	Accumulated Deferred Income Taxes (OR)	-----	(779,712,768)	OR	0.0000%	0
-----	282	Accumulated Deferred Income Taxes (OTHER)	-----	(15,529,095)	OTHER	0.0000%	0
-----	282	Accumulated Deferred Income Taxes (UT)	-----	(1,426,501,339)	UT	0.0000%	0
-----	282	Accumulated Deferred Income Taxes (WA)	-----	(230,349,658)	WA	0.0000%	0
-----	282	Accumulated Deferred Income Taxes (WYP)	-----	(462,041,962)	WYP	100.0000%	(462,041,962)

Total Company				
Federal @ Statutory	Federal Benefit of State Tax	Subtotal: Federal ADIT	State ADIT @ 4.54%	Total
436,192	(19,803)	416,389	94,300	510,689
995,620	(45,204)	950,416	215,243	1,165,662
2,674,989	(12,444)	2,562,545	578,307	3,133,852
1,873,809	(85,071)	1,788,738	405,100	2,193,838
54,830	(2,489)	52,341	11,854	64,195
(1,931)	88	(1,843)	(417)	(2,260)
982,360	(44,599)	937,761	212,377	1,150,138
50,496	(2,293)	48,203	10,917	59,120
363,275	(16,493)	346,782	78,536	425,318
1,584,097	(71,918)	1,512,179	342,467	1,854,646
375	(17)	358	81	439
3,791,229	(172,122)	3,619,107	819,628	4,438,735
2,535,199	(115,098)	2,420,101	548,086	2,968,187
105,813	(4,804)	101,009	22,876	123,885
6,765,163	(307,138)	6,458,025	1,462,564	7,920,589
17,332,926	(786,915)	16,546,011	3,747,214	20,293,225
75,825,084	(3,442,459)	72,382,625	16,392,661	88,775,286
17,507,691	(794,849)	16,712,842	3,784,996	20,497,838
38,727,107	(1,758,211)	36,968,896	8,372,432	45,341,328
134,076,075	(6,087,054)	127,989,02		

Account		Book Tax Difference			State Allocation		
SAP	FERC	Description	#	Total Company	Protocol Factor	%	Wyoming Allocated
----	282	PP&E Adjustment - SG	-----	25,873,770	SG	13.6257%	3,525,474
----	282	PP&E Adjustment - SO	-----	3,783,170	SO	12.6656%	479,162
				(3,137,861,619)			(458,037,326)
286605	282	PP&E FIN 48 Balances	105,136	(383,916)	DITBAL	14.6056%	(56,073)
287221	282	Reg Liability - Steam Decommissioning - ID	415,933	99,740	IDU	0.0000%	0
287222	282	Reg Liability - Steam Decommissioning - UT	415,934	6,638,771	UT	0.0000%	0
287223	282	Reg Liability - Steam Decommissioning - WY	415,935	4,181,328	WYP	100.0000%	4,181,328
287301	282	UT Klamath Relicensing Costs	105,471	(793,056)	OTHER	0.0000%	0
287607	282	Regulatory Adjustment: Effects of Ratemaking - Fixed Assets - PMI - Fed Only	105,117	(1,499,259)	SE	14.5465%	(218,089)
287704	282	Basis Intangible Difference	105,143	(152,487)	SNP	12.4967%	(19,056)
287766	282	Amortization NOPAs 99-00 RAR	610,100N	29,320	SO	12.6656%	3,714
287771	282	Tax Depletion-SRC	110,205	14,804	SE	14.5465%	2,153
287928	282	Hydro Relicensing Obligation	425,310	(2,854,482)	OTHER	0.0000%	0
				5,280,763			3,893,977
				(3,132,580,856)			(454,143,349)
286887	283	Reg Asset - Pension Settlement - OR	320,286	(1,043,190)	OTHER	0.0000%	0
286888	283	Reg Asset - Pension Settlement - UT	320,287	(391,652)	OTHER	0.0000%	0
286889	283	Reg Asset - Pension Settlement - WY	320,288	(1,146,622)	WYU	100.0000%	(1,146,622)
286890	283	Reg Asset - WA Equity Advisory Group (CETA)	415,100	(182,356)	WA	0.0000%	0
286891	283	Reg Asset - Covid-19 Bill Assistance Program - OR	415,943	(2,965,300)	OTHER	0.0000%	0
286892	283	Reg Asset - Covid-19 Bill Assistance Program - WA	415,944	(762,511)	OTHER	0.0000%	0
286893	283	Reg Asset - WA - Major Mtc Expense - Colstrip #4	415,755	(63,656)	WA	0.0000%	0
286894	283	Reg Asset - Wildland Fire Protect&f UT	415,261	(1,020,468)	OTHER	0.0000%	0
286895	283	Reg Asset - Wildfire Mitigation - OR	415,262	(6,905,816)	OR	0.0000%	0
286896	283	Reg Asset - Cholla Unrecovered Plant - CA	415,734	(233,887)	CA	0.0000%	0
286898	283	Reg Asset - Cholla Unrecovered Plant - WY	415,736	(7,493,740)	WYP	100.0000%	(7,493,740)
286901	283	Reg Asset - Carbon Plant Decommissioning/Inventory - CA	415,938	12,797	CA	0.0000%	0
286904	283	Reg Asset - WA Decoupling Mechanism	415,200	(1,369,818)	OTHER	0.0000%	0
286908	283	Property Tax FIN 48 Balances	210,201	(3,391,794)	GPS	12.6656%	(429,592)
286910	283	Reg Asset - OR Transportation Electrification Pilot	415,200	(363,663)	OTHER	0.0000%	0
286911	283	Reg Asset - CA Transportation Electrification Pilot	415,430	55,631	OTHER	0.0000%	0
286912	283	Reg Asset - WA Transportation Electrification Pilot	415,431	(154,598)	OTHER	0.0000%	0
286913	283	Reg Asset - Community Solar - OR	415,720	(544,325)	OTHER	0.0000%	0
286917	283	Reg Asset - Fire Risk Mitigation - CA	415,260	(5,602,404)	OTHER	0.0000%	0
286918	283	Prepaid - FSA O&M - East	210,175	(459,253)	SG	13.6257%	(62,576)
286919	283	Prepaid - FSA O&M - West	210,170	(169,581)	SG	13.6257%	(23,107)
286925	283	Contra Reg Asset - Cholla U4 - OR	415,728	101,347	OR	0.0000%	0
286926	283	Contra Reg Asset - Cholla U4 - UT	415,729	304,350	UT	0.0000%	0
286927	283	Contra Reg Asset - Cholla U4 - WY	415,730	(720,796)	WYP	100.0000%	(720,796)
286928	283	Reg Asset - Pension Settlement - CA	415,833	(218,867)	OTHER	0.0000%	0
286929	283	Reg Asset - Emergency Svc Progs - CA	415,841	102,177	OTHER	0.0000%	0
286930	283	Reg Asset - 2020 GRC - AMI-Meter-OR	415,426	(2,243,522)	OTHER	0.0000%	0
286933	283	Reg Asset - OR CAT - Expense Deferral	415,645	(2,608)	OTHER	0.0000%	0
286935	283	Reg Asset - Low Carbon Energy Standards - WY	415,251	(86,421)	OTHER	0.0000%	0
286936	283	Reg Asset - Wind Test Energy Deferral - WY	415,255	(49,107)	OTHER	0.0000%	0
286937	283	Reg Asset - Electric Vehicle Charging Infrastructure - UT	415,270	(2,519,844)	OTHER	0.0000%	0
286938	283	Reg Asset - OR Metro Business Income Tax Deferral	415,646	(53,549)	OTHER	0.0000%	0
286941	283	Reg Asset - Low Income Bill Discount - OR	415,440	(422)	OTHER	0.0000%	0
286942	283	Reg Asset - Utility Community Advisory Group - OR	415,441	(2,167)	OTHER	0.0000%	0
286943	283	Reg Asset - Wildfire Damaged Asset - OR	415,263	(464,363)	OTHER	0.0000%	0
286944	283	Reg Asset - Distribution System Plan - OR	415,252	(53,043)	OTHER	0.0000%	0
287569	283	FAS 158 Pension Asset	720,805	(15,540,137)	SO	12.6656%	(1,968,254)
287570	283	Reg Asset - Deferred Intervenor Funding Grants - CA	415,701	(97,160)	OTHER	0.0000%	0
287571	283	Reg Asset - Lake Side Settlement - WY	415,702	(166,311)	WYU	100.0000%	(166,311)
287573	283	Reg Asset - Deferred Excess NPC - WA Hydro - Noncurrent	415,873	(13,977,584)	OTHER	0.0000%	0
287576	283	Reg Asset - DSM Balance Reclass	430,110	(714,661)	OTHER	0.0000%	0
287590	283	Reg Asset - Deferred Oregon Independent Evaluation Fees	415,840	(9,573)	OTHER	0.0000%	0
287591	283	Reg Asset - Environmental Costs - WA	415,301	759,658	WA	0.0000%	0
287593	283	Reg Asset - Deferred Excess NPC - WY '09 & After - Noncurrent	415,874	(13,921,301)	OTHER	0.0000%	0
287596	283	Reg Asset - Deferred Excess NPC - ID - Noncurrent	415,892	(4,726,160)	OTHER	0.0000%	0
287597	283	Reg Asset - Goodnoe Hills Settlement - WY	415,703	(49,640)	WYP	100.0000%	(49,640)
287601	283	Reg Asset - Pref Stock Redemp Loss WA	415,677	(63)	OTHER	0.0000%	0
287614	283	Reg Asset - Demand Side Management - Noncurrent	430,100	(77,902,763)	OTHER	0.0000%	0
287634	283	Reg Asset - Environmental Cost	415,300	(22,445,448)	SO	12.6656%	(2,842,855)
287640	283	Reg Asset - Deferred Intervenor Funding Grants - OR	415,680	(682,805)	OTHER	0.0000%	0
287647	283	Reg Asset - Deferred Intervenor Funding Grants - ID	425,100	(9,834)	IDU	0.0000%	0
287661	283	Hermiston Swap	425,360	(590,988)	SG	13.6257%	(80,526)
287662	283	Prepaid Fees - OR PUC	210,100	(963,966)	OR	0.0000%	0
287664	283	Prepaid Fees - UT PSC	210,120	(1,526,764)	UT	0.0000%	0
287665	283	Prepaid Fees - Idaho PUC	210,130	(60,150)	IDU	0.0000%	0
287669	283	Other Prepaid	210,180	(822,565)	OTHER	0.0000%	0
287675	283	Post Merger Loss - Reacquired Debt	740,100	(629,453)	SNP	12.4967%	(78,661)
287685	283	Reg Asset - BPA Balancing Account - ID	425,380	(140,519)	IDU	0.0000%	0
287708	283	Property Taxes - Lien Date	210,200	(5,656,333)	GPS	12.6656%	(716,409)
287738	283	Reg Asset - FAS 158 Pension Liab Adj.	320,270	(62,959,231)	SO	12.6656%	(7,974,175)
287739	283	Reg Asset - FAS 158 Post Ret. Liab.	320,280	6,984,022	SO	12.6656%	884,570
287770	283	Trapper Mining Inc. Investment Basis	120,205	(689,039)	OTHER	0.0000%	0
287781	283	Reg Asset - Deferred Excess NPC - CA - Noncurrent	415,870	(1,575,307)	OTHER	0.0000%	0
287841	283	Contra Reg Asset - Deer Creek Abandonment - CA	415,411	312,054	CA	0.0000%	0
287842	283	Contra Reg Asset - Deer Creek Abandonment - ID	415,412	586,733	IDU	0.0000%	0
287843	283	Contra Reg Asset - Deer Creek Abandonment - OR	415,413	1,535,080	OR	0.0000%	0
287845	283	Contra Reg Asset - Deer Creek Abandonment - WA	415,415	1,054,633	WA	0.0000%	0
287850	283	Contra Reg Asset - UMWA Pension	415,425	1,168,492	OTHER	0.0000%	0
287855	283	Contra Reg Asset - UMWA Pension - WA	415,421	1,990,706	OTHER	0.0000%	0
287858	283	Reg Asset - Preferred Stock Redemption Loss WY	415,676	(201)	OTHER	0.0000%	0
287860	283	Reg Asset - Storm Damage Deferral - CA	415,855	(62,322)	OTHER	0.0000%	0
287861	283	Reg Asset - Deferred Overburden Costs - ID	415,857	(170,504)	OTHER	0.0000%	0
287864	283	Reg Asset - Powderdale Decommissioning - ID	415,852	465	IDU	0.0000%	0
287868	283	Reg Asset - Deferred Overburden Costs - WY	415,858	(325,627)	WYP	100.0000%	(325,627)
287871	283	Reg Asset - Solar Feed-In Tariff Deferral - OR - Noncurrent	415,866	(1,087,238)	OTHER	0.0000%	0
287882	283	Reg Asset - Deferred Excess NPC - OR - Noncurrent	415,876	5,275,118	OTHER	0.0000%	0
287888	283	Reg Asset - REC Sales Deferral - WA - Noncurrent	415,882	(51,370)	OTHER	0.0000%	0
287889	283	Reg Asset - REC Sales Deferral - WY - Noncurrent	415,883	43,159	OTHER	0.0000%	0
287896	283	Reg Asset - Deferred Excess NPC - UT - Noncurrent	415,875	(12,161,920)	OTHER	0.0000%	0
287897	283	Reg Asset - Klamath Hydroelectric Relicensing Costs - UT	425,400	7,536	OTHER	0.0000%	0
287899	283	Reg Asset - UT - Liquidation Damages JB4, N1&2	415,878	(81,752)	UT	0.0000%	0
287903	283	Reg Asset - WY Liquidation Damages N2	415,879	(13,330)	WYP	100.0000%	(13,330)
287906	283	Reg Asset - UT Subscriber Solar Program	415,863	(465,862)	UT	0.0000%	0
287907	283	Prepaid Aircraft Maintenance Costs	210,185	(59,380)	SG	13.6257%	(8,091)
287908	283	Prepaid Water Rights	210,190	(94,629)	SG	13.6257%	(12,894)
287917	283	Reg Liability - Property Insurance Reserve - OR	705,451	(6,261,024)	OR	0.0000%	0
287919	283	Reg Asset - OR Asset Sale Gain Giveback - Noncurrent	425,105	(600,034)	OTHER	0.0000%	0
287935	283	Reg Asset - Carbon Plant Decommissioning/Inventory	415,936	(38,047)	SG	13.6257%	(5,184)
287939	283	Reg Asset - Utah STEP Pilot Program Balance Account	415,115	2,760,468	OTHER	0.0000%	0
287942	283	Reg Asset - Other - Balance Reclass	430,112	(3,486,150)	OTHER	0.0000%	0
287971	283	Reg Asset - Solar Incentive Program - UT - Noncurrent	415,868	(2,814,400)	OTHER	0.0000%	0
287975	283	Reg Asset - CA GHG Allowances - Noncurrent	415,655	(2,005,850)	OTHER	0.0000%	0
287977	283	Reg Asset - Noncurrent Reclass - Other	415,885	(47,813)	OTHER	0.0000%	0

Total Company				
Federal @ Statutory	Federal Benefit of State Tax	Subtotal: Federal ADIT	State ADIT @ 4.54%	Total
22,099,403	(1,003,313)	21,096,090	4,777,690	25,873,770
3,231,296	(146,701)	3,084,595	3,783,170	6,867,765
(2,680,122,600)	121,677,550	(2,558,444,710)	(579,416,909)	(3,137,861,619)
(354,063)	15,074	(337,989)	(45,927)	(383,916)
85,191	(3,868)	81,323	18,417	99,740
5,670,332	(257,433)	5,412,899	1,225,872	6,638,771
3,571,371	(162,140)	3,409,231	772,097	4,181,328
(677,368)	30,753	(646,615)	(146,441)	(793,056)
(1,280,553)	58,137	(1,222,416)	(276,843)	(1,499,259)
(130,243)	5,913	(124,330)	(28,157)	(152,487)
25,043	(1,137)	23,906	5,414	29,320
12,644	(574)	12,070	2,734	14,804
(2,438,081)	110,689	(2,327,392)	(527,090)	(2,854,482)
4,484,273	(203,586)	4,280,687	1,000,076	5,280,763
(2,675,637,987)	121,473,964	(2,554,164,023)	(578,416,833)	(3,132,580,856)
(891,013)	40,452	(850,561)	(192,629)	(1,043,190)
(334,519)	15,187	(319,332)	(72,320)	(391,652)
(979,357)	44,463	(934,894)		

Account		Book Tax Difference		State Allocation			
SAP	FERC	Description	#	Total Company	Protocol Factor	%	Wyoming Allocated
287978	283	Reg Asset - REC Sales Deferral - OR - Noncurrent	415.906	(60,718)	OTHER	0.0000%	0
287981	283	Reg Asset - Depreciation Increase - ID	415.920	(1,348,206)	IDU	0.0000%	0
287982	283	Reg Asset - Depreciation Increase - UT	415.921	(220,380)	UT	0.0000%	0
287983	283	Reg Asset - Depreciation Increase - WY	415.922	(3,208,253)	WYP	100.0000%	(3,208,253)
287985	283	Reg Asset - Carbon Unrecovered Plant - UT	415.924	(1,909,997)	UT	0.0000%	0
287996	283	Reg Asset - Preferred Stock Redemption Loss UT	415.875	(585)	OTHER	0.0000%	0
287997	283	Reg Asset - CA Mobile Home Park Conversion	415.862	(45,289)	OTHER	0.0000%	0
-----	283	Cholla 4 Retirement - Nonunion Severance	-----	(624,789)	SG	13.6257%	(85,132)
-----	283	Cholla 4 Retirement - Safe Harbor Lease	-----	(26,263)	SG	13.6257%	(3,579)
-----	283	Wyoming Test Energy Deferral	-----	(49,646)	WYP	100.0000%	(49,646)
-----	283	Klamath Asset Transfer	-----	(1,056,601)	SG	13.6257%	(143,969)
				(281,860,832)			(26,828,582)
				(2,980,564,114)			(428,001,310)

190.000		433,877,574		52,970,621
281.000		0		0
282.000		(3,132,580,856)		(454,143,349)
283.000		(281,860,832)		(26,828,582)
Total		(2,980,564,114)		(428,001,310)

Total Company				
Federal @ Statutory	Federal Benefit of State Tax	Subtotal: Federal ADIT	State ADIT @ 4.54%	Total
(51,861)	2,355	(49,506)	(11,212)	(60,718)
(1,151,535)	52,280	(1,099,255)	(248,951)	(1,348,206)
(188,232)	8,546	(179,686)	(40,694)	(220,380)
(2,740,245)	124,407	(2,615,838)	(592,415)	(3,208,253)
(1,631,374)	74,064	(1,557,310)	(352,687)	(1,909,997)
(500)	23	(477)	(108)	(585)
(38,665)	1,755	(36,910)	(8,359)	(45,289)
(533,647)	24,227	(509,420)	(115,369)	(624,789)
(22,432)	1,019	(21,413)	(4,850)	(26,263)
(42,404)	1,925	(40,479)	(9,167)	(49,646)
(902,468)	40,972	(861,496)	(195,105)	(1,056,601)
(240,975,083)	10,940,272	(230,034,811)	(51,826,021)	(281,860,832)
(2,574,011,267)	108,102,593	(2,465,908,674)	(514,655,440)	(2,980,564,114)

342,601,803	(24,311,643)	318,290,160	115,587,414	433,877,574
0	0	0	0	0
(2,675,637,987)	121,473,964	(2,554,164,023)	(578,416,833)	(3,132,580,856)
(240,975,083)	10,940,272	(230,034,811)	(51,826,021)	(281,860,832)
(2,574,011,267)	108,102,593	(2,465,908,674)	(514,655,440)	(2,980,564,114)

Wyoming Allocated				
Federal @ Statutory	Federal Benefit of State Tax	Subtotal: Federal ADIT	State ADIT @ 4.54%	Total
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
(2,740,245)	124,407	(2,615,838)	(592,415)	(3,208,253)
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
(72,713)	3,301	(69,412)	(15,720)	(85,132)
(3,057)	139	(2,918)	(661)	(3,579)
(42,404)	1,925	(40,479)	(9,167)	(49,646)
(122,968)	5,583	(117,385)	(26,584)	(143,969)
(22,944,193)	1,041,665	(21,902,528)	(4,926,054)	(26,828,582)
(369,096,499)	15,662,357	(353,434,142)	(74,567,168)	(428,001,310)

45,243,467	(2,054,053)	43,189,414	9,781,207	52,970,621
0	0	0	0	0
(387,894,639)	17,610,417	(370,284,222)	(83,859,127)	(454,143,349)
(22,914,930)	1,040,338	(21,874,592)	(4,953,990)	(26,828,582)
(365,566,102)	16,596,702	(348,969,400)	(79,031,910)	(428,001,310)

Rocky Mountain Power
Exhibit 13.11
Docket No. 20000-633-ER-23
Witness: Ryan Fuller

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Ryan Fuller
NOL Example Calculation

September 2023

NOL Example Calculation		
Line No.	Item	Amount
1.	Pre-Tax Book Income	100
2.	Temporary Book-Tax Difference: Depreciation	(500) [B]
3.	Taxable Income / (Loss) before NOL Carryforward	(400)
4.	Net Operating Loss Carryforward	400 [A]
5.	Taxable Income per Tax Return	0
6.	Tax Rate	25% [C]
7.	Current Income Tax (Benefit) / Expense	0
8.	Deferred Income Tax (Benefit) / Expense: NOL Carryforward	= [A] X [C] (100)
9.	Deferred Income Tax (Benefit) / Expense: Depreciation	= [B] X [C] 125
10.	Total Income Tax (Benefit) / Expense	25

Journal Entry #1				
Line No.	Acct. Description	FERC Acct.	DR	CR
11.	Accumulated Deferred Income Tax Asset / (Liability): NOL Carryforward	190	100	
12.	Deferred Income Tax (Benefit) / Expense: NOL Carryforward	411		(100)
13.	<i>To record the deferred tax asset for the NOL carryforward generated during the tax year.</i>			

Journal Entry #2				
Line No.	Acct. Description	FERC Acct.	DR	CR
14.	Deferred Income Tax (Benefit) / Expense: Depreciation	410	125	
15.	Accumulated Deferred Income Tax Asset / (Liability): Depreciation	282		(125)
16.	<i>To record the deferred tax liability for the current-period temporary book-tax difference for depreciation.</i>			

The example above clearly illustrates how income tax expense is reduced for income tax accounting and ratemaking purposes for the tax benefits of a net operating loss (NOL) in the year the NOL is generated. Because the NOL has not yet been realized by the company, it is recorded as a deferred tax asset (DTA), which is properly included in rate base.