

Application No. 22-08-____
Exhibit No. PAC/200
Witness: Jack Painter

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Direct Testimony of Jack Painter
Balancing Rate and Offset Rate Calculations

August 2022

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ATTACHED EXHIBITS

Exhibit PAC/201 – California ECAC Offset/Balancing Rate Calculation

Exhibit PAC/202 – Adjusted Actual 2021 Net Power Costs

Exhibit PAC/203 – Adjusted Actual/Projected 2022 Net Power Costs

Confidential Exhibit PAC/204 – ARB Administrative Costs

1 **I. INTRODUCTION AND QUALIFICATIONS**

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

4 A. My name is Jack Painter, and my business address is 825 NE Multnomah Street, Suite
5 600, Portland, Oregon 97232. My title is Net Power Cost (NPC) Specialist.

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

7 A. I received a Bachelor of Arts degree in Business Administration with a Finance major
8 from Washington State University in 2007. I have been employed by PacifiCorp
9 since 2008 and have held positions in the regulation and jurisdictional loads
10 departments. I joined the regulatory net power costs group in 2019 and assumed my
11 current role as an NPC Specialist in 2020.

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

13 A. Yes. I have previously provided testimony to the public utility commissions in Utah,
14 Wyoming, Idaho, Oregon, and Washington.

15 **II. SUMMARY OF TESTIMONY**

16 **Q. Please summarize your direct testimony.**

17 A. I present the Company's proposed Energy Cost Adjustment Clause (ECAC)
18 Balancing Rate and Offset Rate calculations for calendar year 2023 (2023 ECAC). In
19 addition, my testimony:

- 20 • Presents the updated 2021 adjusted actual and 2022 adjusted actual/projected
21 net power costs, which are used to develop the 2023 Balancing Rate and
22 2023 Offset Rate;
- 23 • Describes the treatment of fuel stock carrying charges, costs for

1 implementation and reporting verification under the California Air Resources
2 Board (ARB) Mandatory Reporting Rule and Cap and Trade Program (ARB
3 administrative costs), net metering surplus costs, purchases of renewable
4 energy certificates (RECs) for renewables portfolio standard (RPS)
5 compliance, renewable energy production tax credits (PTCs), start-up fuel
6 costs, reasonable energy price (REP) for qualifying facilities (QF) costs, and
7 EIM Body of State Regulators (BOSR) and Western Power Pool (WPP)
8 Western Resource Adequacy Program (WRAP) costs.¹

9 **Q. What components are included in the Balancing Rate and Offset Rate?**

10 A. The Balancing Rate and Offset Rates include changes to ARB administrative costs,
11 net metering surplus compensation, fuel stock carrying charges, REC purchases for
12 RPS compliance, PTCs, start-up fuel costs, REP QF costs, and EIM BOSR and WPP
13 WRAP costs. Renewable energy PTCs and start-up fuel costs have been included in
14 accordance with the Commission's decision in the Company's 2019 Rate Case filing,
15 A.18-04- 002 (2019 Rate Case), D.20-02-025.

16 **Q. Please describe Exhibit PAC/201.**

17 A. Exhibit PAC/201 shows the calculation of the proposed Offset and Balancing Rates
18 for the 2023 rate effective period. Lines 1 through 16 are used to develop the Offset
19 Rate. Lines 17 through 65 are used to develop the Balancing Rate.

20 **III. ADJUSTED ACTUAL NET POWER COSTS**

21 **Q. Please explain adjusted actual NPC.**

22 A. NPC are defined as the sum of the Company's fuel expenses, wholesale purchase

¹ In 2022, the Northwest Power Pool rebranded itself as the Western Power Pool.

1 power expenses, and wheeling expenses, less wholesale sales revenue. Adjusted
2 actual NPC are the sum of total-Company amounts recorded in Federal Energy
3 Regulatory Commission Accounts 501, 503 and 547 (Steam Production Fuel
4 Expense) for the Company's coal, geothermal, and natural gas resources;
5 555 (Purchased Power); and 565 (Wheeling); less Account 447 (Sales for Resale).
6 These amounts are adjusted to: (1) align booked NPC in those accounts with NPC
7 used in the rate setting process, ensuring only comparable costs are used in the
8 deferral calculation; and (2) remove prior-period accounting entries, if any, recorded
9 during the deferral period that are not applicable to the current period.

10 **Q. Why are the 2021 adjusted actual NPC different from what the Company**
11 **included in its 2022 ECAC filing?**

12 A. At the time of the 2022 ECAC² Application, actual NPC were only available for
13 January through May 2021. As a result, the data used to calculate the 2022 Balancing
14 Rate included five months of adjusted actual NPC (January through May 2021) and
15 seven months of projected NPC (June through December 2021). In the current filing,
16 the Company updated its 2021 data to incorporate the actual NPC for the entire
17 12-month period. The 2021 adjusted actual NPC are shown in Exhibit PAC/202.

18 **Q. Which months in 2022 reflect adjusted actual NPC in the current filing?**

19 A. January through May 2022 reflect adjusted actual NPC while June through
20 December 2022 are a projection of the Company's NPC for the balance of the year.
21 Consistent with the design of the ECAC, these are combined to reflect the overall

² Application 21-08-004.

1 expected NPC for 2022. The 2022 adjusted actual/projected NPC are shown in
2 Exhibit PAC/203.

3 **Q. How will the projected NPC be reconciled to actual NPC?**

4 A. In its annual ECAC filings, the Company compares adjusted actual NPC to amounts
5 previously projected. The difference between adjusted actual NPC and the projected
6 amount on a California-allocated basis is tracked in the ECAC balancing account
7 where it accrues interest based on the nonfinancial commercial paper rate. Amounts
8 included in the ECAC balancing account are recovered from or refunded to customers
9 through the Balancing Rate.

10 **IV. 2023 BALANCING RATE**

11 **Q. Please describe the components included in the 2023 Balancing Rate.**

12 A. The Balancing Rate is the rate that returns to or recovers from customers the actual
13 deferred NPC accumulated in the ECAC balancing account. Table 1 shows the
14 individual components making up the Balancing Rate for 2023.

Table 1

ECAC Balancing Rate		
Balancing Account		
1	Balancing Account Balance 12/31/2021	\$ (4,701,959)
2	2021 NPC Variance	654,101
3	2022 NPC Variance	2,958,195
4	Fuel Stock Carrying Charge, ARB Admin Costs, Net Metering Costs, REC Purchases, PTCs, Start-Up Fuel Costs, Reasonable Energy Price QF Costs, and EIM BOSR and NWPP WRAP Costs	126,634
5	Interest	(10,291)
	Sum of Lines	
6	Total Balancing Account	\$ (973,320)
	1 - 5	
7	California Projected Sales (MWh)	747,460
8	Balancing Rate \$/MWh	Line 6 / Line 7 \$ (1.30)
9	Billing Factor (Franchise Fees & Uncollectible Accounts)	102.1%
10	Balancing Rate with Billing Factor \$/MWh	Line 8 x Line 9 \$ (1.33)

1 As shown in Table 1, the 2023 Balancing Rate is calculated by:

2 (1) Determining the total amount in the ECAC balancing account (Table 1, Line
3 6) by accumulating the sum of:

- 4 • the unrecovered amount from previous ECAC filings remaining in the
- 5 ECAC balancing account as of December 31, 2021;
- 6 • the variance between 2021 adjusted actual NPC and the amount
- 7 projected in the 2022 ECAC filing;
- 8 • the variance between 2022 adjusted actual/projected NPC and the NPC
- 9 projected in the 2022 ECAC filing;

1 • the fuel stock carrying charge, the ARB administrative costs, net
2 metering surplus compensation, REC purchases for RPS compliance,
3 PTCs, Start-Up Fuel costs, reasonable energy price QF costs, and EIM
4 BOSR and WPP WRAP costs; and

5 • interest accumulated on the balance of the ECAC balancing account.

6 (2) Dividing the total balance of the ECAC balancing account (Table 1, Line 6)
7 by the California projected retail sales (Table 1, Line 7) included in the
8 Company's 2019 Rate Case.

9 (3) Grossing-up the result for the ECAC Billing Factor (Table 1, Line 9) to
10 account for franchise fees and uncollectible accounts expense, as included in
11 the Company's 2019 Rate Case.

12 **Q. What is the Company's proposed Balancing Rate?**

13 A. As shown in Table 1 and in Exhibit PAC/201, Line 65, the proposed Balancing Rate
14 is a credit of \$1.33 per MWh.

15 **Q. Why is the proposed Balancing Rate a credit in this ECAC?**

16 A. As explained above and shown in Table 1 the proposed 2023 Balancing Rate is driven
17 by the ending balance in the balancing account as of 12/31/2021, the 2021 and
18 2022 NPC variances, other costs and interest. The difference of approximately
19 \$1.0 million results in a proposed balancing rate credit of \$1.33 per MWh. While the
20 2021 and 2022 NPC variances plus other costs were \$3.7 million, the ending balance
21 in the balancing account is a \$4.7 million credit to California customers due to the
22 rate effective dates between when the higher 2020 Balancing Rate ended, and the
23 lower 2021 Balancing Rate became effective in December 2021.

1 **Q. What is the total dollar amount to be collected through the Balancing Rate in**
2 **2023?**

3 A. Accumulating the 2021 residual balance and the incremental deferrals for 2021, plus
4 interest, results in a refund of approximately \$1.0 million to be returned to customers
5 through the Balancing Rate. The total includes amounts for the fuel stock carrying
6 charges, net metering surplus compensation, ARB administrative costs, REC
7 purchases for RPS compliance, PTCs, start-up fuel costs, reasonable energy price QF
8 costs, and EIM BOSR and WPP WRAP costs.

9 **Q. Please explain the difference between the amount of NPC that was anticipated to**
10 **be deferred during 2021, and the actual NPC deferred during 2021.**

11 A. In its 2022 ECAC filing, the 2021 deferral was calculated using actual information
12 from January through May 2021 and a projection of NPC and related collections from
13 customers for the remainder of the year. The Company anticipated that during
14 2021 it would accumulate an under-recovery of approximately \$651,000 from
15 customers. The actual amount deferred for 2021 was an over-recovery of \$3,000, or a
16 difference of \$654,000 from projected levels, as shown on Line 51 of Exhibit
17 PAC/201.

18 The \$3,000 over-recovery consists of two components: (1) actual NPC for
19 2021 was approximately \$4.9 million higher than projected on a California-allocated
20 basis; and (2) collections from customers through the Offset Rate in effect during
21 2021 were approximately \$4.9 million higher than projected, causing the deferred
22 balance to increase. Adjusted Actual NPC were higher than anticipated NPC, in part

1 due to lower wholesale sales revenue and higher coal costs, natural gas costs, and
2 purchase power expense.

3 **Q. Please describe the changes that caused an increase in NPC during 2021.**

4 A. Overall, the variance between total Company Actual NPC and the Offset Rate for
5 2021 was \$317 million, or 22.6 percent. Wholesale sales revenue was \$26 million
6 lower than projected in the 2021 ECAC, while coal costs, natural gas expense, and
7 purchased power expense were higher by \$50 million, \$81 million, and \$140 million
8 respectively. The increase in purchased power expense was driven primarily due to
9 extreme weather events and market prices.

10 **Q. Please describe some of the weather events that impacted NPC during the**
11 **Deferral Period.**

12 A. Calendar year 2021 was characterized by many extreme and unforeseeable weather
13 events. Collectively, they shaped actual NPC throughout the year, especially when
14 considering that the load forecast used in the ECAC is weather normalized and does
15 not account for significant weather events and their impact to NPC. For instance, the
16 Company experienced a significant impact to NPC with the Western North America
17 heat wave, a 13-day long extreme weather event that occurred between
18 June 25, 2021, and July 7, 2021, that saw a temperature peak of 119 degrees
19 Fahrenheit in the Western United States and had a significant impact on market prices
20 for June and July as compared to the same period in 2020.

21 Additionally, February 2021 saw a polar vortex that brought record cold
22 temperatures to a significant portion of the United States from February 6, 2021,
23 through February 22, 2021, with temperatures falling as much as 25-50 degrees

1 Fahrenheit below average. Combining this event with the 2021 Texas power crisis
2 created a perfect storm and market prices were significantly higher during this period.

3 **Q. Please describe how drought conditions have an effect on NPC.**

4 A. Ongoing drought has increased NPC because it impacts the availability of hydro
5 resources. In 2021, actual generation from hydro resources was 837,738 MWh, or
6 23 percent lower, than forecasted generation. Unrealized hydro MWh need to be
7 replaced to meet customer demand through system dispatch of other resources,
8 reducing market sales, increasing market purchases or any combination of these
9 options. The estimated impact to total-company NPC of the decreased hydro MWh
10 due to drought is \$39 million.

11 **Q. Please explain the changes in purchased power expense.**

12 A. Purchased power expense increased primarily due to higher market purchases of
13 \$113 million (represented in the offset rate as short-term firm and system balancing
14 purchases) with a significant impact tied to the polar vortex in February, the Western
15 North America heat wave in June and July, and drought. Actual market purchases
16 were 2,532 GWh, or 70 percent, lower than Base NPC, but the average price of actual
17 market purchase transactions was \$148.37/MWh, or 721 percent, higher than Base
18 NPC.

19 For the polar vortex in February, the Mid-Columbia market hub saw average
20 market prices increase 188 percent for peak hours and 151 percent for off-peak hours
21 while the Four Corners market hub saw average market prices increase 520 percent for
22 peak hours and 242 percent for off-peak hours.

23 With the heat wave in June and July, the Mid-Columbia market hub saw an

1 average increase in high load hour market prices of 620 percent and 560 percent
2 respectively while the Four Corners market hub saw an average increase in high load
3 hour market prices of 464 percent and 150 percent, respectively. The impact of higher
4 market prices results in an NPC variance of \$183 million above Base NPC in just June
5 and July 2021 alone on a total-Company basis.

6 **Q. Please explain the amount the Company expects to defer to the ECAC balancing**
7 **account during 2022.**

8 A. Based on actual NPC data for five months (January through May 2022) and projected
9 NPC for seven months (June through December 2022), the Company anticipates it
10 will defer an approximate reduction of \$3.0 million to the ECAC balancing account
11 during 2022. The residual balance of approximately \$4.7 million in the balancing
12 account at the end of 2021 is added to the expected 2022 deferral, and the net result is
13 approximately \$1.7 million to be collected from customers as shown on line 51 of
14 Exhibit PAC/201.

15 V. 2023 OFFSET RATE

16 **Q. Please explain the 2023 Offset Rate.**

17 A. As shown in Exhibit PAC/201, the Offset Rate is the amount of California-allocated
18 2023 NPC, fuel stock carrying charges, ARB administrative costs, net metering
19 surplus compensation, REC purchases for RPS compliance, PTCs, start-up fuel costs,
20 reasonable energy price QF costs, and EIM BOSR and WPP WRAP costs that will be
21 recovered from customers for the forecast test year (2023). According to the
22 Commission-approved terms of the ECAC mechanism, if the change in the Offset
23 rate exceeds a threshold of five percent, the rate is updated for the upcoming rate

1 effective period.

2 Compared to NPC in the 2022 ECAC, forecast NPC in the 2023 ECAC are
3 higher by 19.9 percent. Additionally, the inclusion of PTCs in the 2023 ECAC
4 decreases net power cost and thereby decreases the Offset Rate. The proposed Offset
5 Rate is \$31.33 per MWh, which is an increase of 24.6 percent from the rate of
6 \$25.15 per MWh, as proposed in the Company's 2022 ECAC. With the change in the
7 Offset Rate greater than the five percent threshold, the Company proposes to change
8 the Offset Rate for 2023.

9 **Q. Please explain the calculation of the Offset Rate for 2023.**

10 A. The Offset Rate is calculated by:

- 11 (1) summing the projected California-allocated 2023 NPC, fuel stock carrying
12 charges, ARB administrative costs, net metering surplus compensation, REC
13 purchases for RPS compliance, PTCs, start-up fuel costs, reasonable energy
14 price QF costs, and EIM BOSR and WPP WRAP costs;
- 15 (2) dividing by the projected California retail sales; and
- 16 (3) grossing up the amount by the ECAC Billing Factor to account for franchise
17 fees and uncollectible accounts expense.

18 As shown in Exhibit PAC/201, Line 16, the calculated 2023 Offset Rate is \$31.33 per
19 MWh. The rate is composed of approximately \$26.7 million in California-allocated
20 NPC, \$0.06 million of fuel stock carrying charges, \$0.09 million in ARB
21 administrative costs, \$0.5 million of REC purchases for RPS compliance, a credit of
22 \$4.5 million for PTCs, and \$0.06 million of start-up fuel costs. Net metering surplus
23 compensation, reasonable energy price QF costs, and EIM BOSR and WPP WRAP

1 costs are currently not a material charge, so the Company has not included a
2 projection for these costs in 2023. In the future, these costs may increase, and the
3 Company may include a forecast as part of future Offset Rate calculations.

4 **VI. FUEL STOCK CARRYING CHARGE**

5 **Q. Does the 2023 Offset Rate include the forecast carrying charges on fuel stock**
6 **balances?**

7 A. Yes. The 2023 Offset Rate includes a forecast carrying charge of \$63,420.

8 **Q. Does the 2023 Balancing Rate also include a true up of actual fuel stock carrying**
9 **charges?**

10 A. Yes. The 2023 Balancing Rate includes a surcharge of \$16,487 (including interest) to
11 true up fuel stock carrying charges to actual costs in 2021 and 2022. Actual carrying
12 charges for 2021 and 2022 were higher than projected due to differences in fuel stock
13 balances and interest rates used to determine the previous carrying charges.

14 **VII. ARB ADMINISTRATIVE COSTS**

15 **Q. Does the 2023 Offset Rate include ARB administrative costs?**

16 A. Yes. The 2023 Offset Rate includes \$86,625 of ARB administrative costs.

17 **Q. Does the 2023 Balancing Rate include ARB administrative costs that were**
18 **booked to the memorandum account authorized in the Company's 2012 ECAC?**

19 A. Yes. The proposed Balancing Rate includes a credit of \$8,777 (including interest) to
20 account for the difference between actual and forecast ARB administrative costs.

21 Confidential Exhibit PAC/204 provides a summary of the costs booked in 2021 and
22 2022, as well as a projection of 2023 costs.

1 **VIII. NET METERING SURPLUS COSTS**

2 **Q. Does the 2023 Offset Rate include the forecast net metering surplus costs?**

3 A. No. Net metering surplus compensation is currently an immaterial charge, so the
4 Company has not included a projection for this cost in 2023.

5 **Q. Does the 2023 Balancing Rate also include a true up of actual net metering
6 surplus costs?**

7 A. Yes. The 2023 Balancing Rate includes \$22,922 (including interest) to true up net
8 metering surplus costs to actual costs in 2021 and 2022.

9 **IX. RENEWABLE ENERGY CREDITS**

10 **Q. Does the Company's 2023 ECAC filing include any revenue from the sale of
11 RECs?**

12 A. No. The Company has not sold any of its California-allocated RECs; rather, these
13 RECs have been retained for compliance with California's RPS.

14 **Q. Does the 2023 Offset Rate include the forecast of any costs from the purchase of
15 RECs?**

16 A. Yes. The 2023 Offset Rate includes a forecast of \$470,556.

17 **Q. Does the 2023 Balancing Rate include a true up of actual REC purchases for
18 RPS Compliance?**

19 A. Yes. The 2023 Balancing Rate includes \$113,738 (including interest) to true up REC
20 purchases to actual purchases for RPS Compliance in 2021 and 2022.

1 **X. PRODUCTION TAX CREDITS**

2 **Q. Does the 2023 Offset Rate include the forecast of renewable energy PTCs?**

3 A. Yes. The 2023 Offset Rate includes a credit of \$4,467,767 based on the forecasted
4 wind generation attributed to PTCs.

5 **Q. Does the 2023 Balancing Rate include a true up of actual PTCs?**

6 A. Yes. The 2023 Offset Rate includes a credit of \$83,503 (including interest) to true up
7 forecasted PTCs to actual PTCs in 2021 and 2022.

8 **XI. START-UP FUEL COSTS**

9 **Q. Does the 2023 Offset Rate include the forecast of any start-up fuel costs?**

10 A. Yes. The 2023 Offset Rate includes a forecast of \$59,897 for start-up fuel costs.

11 **Q. Does the 2023 Balancing Rate include a true up of actual start-up fuel costs?**

12 A. Yes. The 2023 Offset Rate includes a surcharge of \$47,651 (including interest) to
13 true up start-up fuel costs to actual costs in 2021 and 2022.

14 **XII. REASONABLE ENERGY PRICE QF COSTS**

15 **Q. Does the 2023 Offset Rate include the forecast of reasonable energy price QF**
16 **costs?**

17 A. No. Reasonable energy price QF costs are currently an immaterial charge, so the
18 Company has not included a projection for this cost in 2023.

19 **Q. Does the 2023 Balancing Rate also include a true up of actual net metering**
20 **surplus costs?**

21 A. Yes. The 2023 Balancing Rate includes \$16,309 (including interest) to true up
22 reasonable energy price QF costs to actual costs in 2021 and 2022.

XIII. EIM BOSR AND WPP WRAP COSTS

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Q. Does the 2023 Offset Rate include the forecast of EIM BOSR and WPP WRAP costs?

A. No. EIM BOSR and WPP WRAP costs are currently an immaterial charge, so the Company has not included a projection for this cost in 2023.

Q. Does the 2023 Balancing Rate also include a true up of EIM BOSR and WPP WRAP costs?

A. Yes. The 2023 Balancing Rate includes \$2,117 (including interest) to true up EIM BOSR and WPP WRAP costs to actual costs in 2021 and 2022.

Q. Please explain the purpose of the EIM BOSR.

A. The EIM BOSR is a body that addresses the regional nature of the EIM through the EIM governance process. The purpose of the EIM BOSR is to provide “a forum for state commissioners to (1) select a voting member of the EIM Governing Body Nominating Committee, (2) learn about and discuss the EIM and CAISO markets, and (3) express a common position in CAISO stakeholder processes or the EIM Governing Body on EIM issues.”³

Q. Please describe the new fee that is associated with the EIM BOSR.

A. The fee is allocated to state-regulated market participants and is used to pay for personnel and indirect expenses, meeting expense, travel expense, and consultants and contracts.⁴ The BOSR’s activities support the goal of consistent and informed

³ *WEIM BOSR Energy Imbalance Market Body of State Regulators*, WESTERN INTERSTATE ENERGY BOARD, <https://www.westernenergyboard.org/western-energy-imbalance-market-body-of-state-regulators/> (last accessed April 13, 2022).
⁴ See Western Energy Imbalance Market Body of State Regulators 2021 Business Plan and Budget, December 11, 2020, available at <https://www.westernenergyboard.org/wp-content/uploads/EIM-BOSR-2021-Business-Plan-and-Budget-11-Dec-2020.pdf> (last accessed April 13, 2022).

1 regulator engagement on regional market operations and developments, which is
2 crucial to efficient and sustainable markets that deliver public benefits.

3 **Q. What is the WPP WRAP?**

4 A. The WPP WRAP is a new regional resource adequacy initiative that is being
5 implemented by many utilities and power producers across the west to ensure that the
6 region is better able to plan for its regional resource adequacy needs. The WPP
7 WRAP is currently in Phase 3A of implementation, which is a non-binding testing
8 phase that will allow the Company to test the effectiveness of the WRAP without
9 making operational commitments or incurring financial penalties for non-
10 compliance.⁵

11 **Q. Please explain the WPP WRAP fee.**

12 A. The WPP WRAP fee pays for facilitation and coordination of staff resources related
13 to the Phase 3A Scope of Work; direct costs of performing the Phase 3A Scope of
14 Work including the costs to contract a Program Operator; and other binding program
15 preparation costs including preparation for FERC filings, setting up an independent
16 board and preparing WPP to undertake the obligations required to house the program
17 as a public utility under the Federal Power Act.

18 **Q. Does this conclude your direct testimony?**

19 A. Yes.

⁵ See WRAP Announces Full Participation of Phase 3A, Rebecca Sexton,
<https://www.westernpowerpool.org/news/wrap-announces-full-participation-of-phase-3a> (last
accessed April 13, 2022).

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BEFORE THE PUBLIC UTILITIES COMMISSION
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PACIFICORP

Exhibit Accompanying Direct Testimony of
Jack Painter
California ECAC Offset/Balancing Rate Calculation

August 2022

Exhibit PAC/201
PacifiCorp
California ECAC Offset / Balancing Rate Calculator

Line	2021 Projected	2022 Projected	2023 Projected	
ECAC Implementation				
ECAC Offset Rate				
1	Total Company Projected ECAC NPC	\$ 1,403,343,385	\$ 1,460,956,065	\$ 1,752,375,823
2	California Allocated Projected NPC	21,394,283	22,259,157	26,731,521
3	California Allocated Carrying Charge of Fuel Stock	13,255	14,874	63,420
4	California ARB Administrative Costs	82,419	46,189	86,625
5	California Net Metering Surplus Costs	-	-	-
6	California Allocated Renewable Energy Credits Purchases	75,487	192,219	470,556
7	California Allocated Production Tax Credits	(4,138,141)	(4,151,872)	(4,467,767)
8	California Allocated Start-Up Fuel Costs	61,701	58,712	59,897
9	California Allocated Reasonable Energy Price QF Costs	-	-	-
10	California Allocated EIM BOSR and NWPP WRAP Costs	-	-	-
11	California Projected Sales in MWh	747,460	747,460	747,460
12	Projected ECAC Offset Rate \$/MWh	\$ 23.40	\$ 24.64	\$ 30.70
13	Offset Rate Percentage Change	-18.2%	5.3%	24.6%
14	ECAC Offset Rate \$/MWh	\$ 23.40	\$ 24.64	\$ 30.70
15	Billing Factor (Franchise Fees & Uncollectible Accounts)	102.1%	102.1%	102.1%
16	ECAC Offset Rate with Billing Factor \$/MWh	\$ 23.88	\$ 25.15	\$ 31.33

Line	2021 Actual	2022 Actual/Projected
ECAC Balancing Rate		
17	Total Company Projected NPC	\$ 1,403,343,385
18	Total Company Adjusted Actual NPC	\$ 1,719,872,469
19	Variance (Line 18 - Line 17)	\$ 316,529,084
Total Company Component Variance		
Wholesale Sales Revenue		
20	Firm	\$ (25,737,484)
21	Non-Firm	0
Purchase Power Expense		
22	Seasonal	-
23	Existing Demand	2,050,303
24	Existing Energy	(6,848,183)
25	QF	939,381
26	Firm	144,151,343
27	Non-Firm	(0)
Wheeling		
28	Firm	6,564,309
29	Non-Firm	11,773,046
Generation		
30	Coal	49,788,180
31	Seasonal Gas	(1,003,196)
32	Gas	82,490,846
33	Other	835,519
Other		
34	Cholla/APS	50,052
Total		\$ 316,529,084

California Allocated Component Variance		
Wholesale Sales Revenue		
35	Firm	\$ (406,764)
36	Non-Firm	0
Purchase Power Expense		
37	Seasonal	-
38	Existing Demand	32,404
39	Existing Energy	(102,057)
40	QF	14,846
41	Firm	2,278,217
42	Non-Firm	(0)
Wheeling		
43	Firm	103,745
44	Non-Firm	175,451
Generation		
45	Coal	741,981
46	Seasonal Gas	1,229,342
47	Gas	(14,950)
48	Other	12,452
Other		
49	Cholla/APS	746
50	Total - California Energy Cost Account	\$ 4,878,940
51	Under (Over) Collection of California NPC	\$ 654,101
52	California Energy Cost Adjustment Account Interest	320
53	California Deferred Fuel Stock Carrying Charges	(2,666)
54	California ARB Administrative Costs	(8,718)
55	California Net Metering Surplus Compensation	13,640
56	California Renewable Energy Credits Purchases	(75,467)
57	California Production Tax Credits	269,756
58	California Start-Up Fuel Costs	12,804
59	California Reasonable Energy Price QF Costs	16,199
60	California EIM BOSR and NWPP WRAP Costs	2,102
61	Total California Balancing Account	\$ 882,073

Line	2021	2022	2023	
62	ECAC Balancing Rate \$/MWh	\$ 1.03	\$ 4.16	\$ (1.30)
63	Billing Factor (Franchise Fees & Uncollectible Accounts)	102.1%	102.1%	102.1%
64	Balancing Rate w Billing Factor \$/MWh	\$ 1.05	\$ 4.25	\$ (1.33)
65	Balancing Rate Percentage Change			-131.3%

Application No. 22-08-____
Exhibit No. PAC/202
Witness: Jack Painter

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Direct Testimony of

Jack Painter

Adjusted Actual 2021 Net Power Costs

August 2022

Exhibit PAC/202

Exhibit PAC/202
PacifiCorp
Adjusted Actual 2021 Net Power Cost

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total 2021
Special Sales For Resale													
Long Term Firm Sales	\$ 303,229	\$ 335,305	\$ 321,392	\$ 568,272	\$ 387,470	\$ 614,087	\$ 722,967	\$ 674,810	\$ 442,707	\$ 188,102	\$ 532,164	\$ 280,988	\$ 5,351,493
Black Hills	917	1,007	981	1,040	1,052	1,419	1,684	1,621	1,609	1,670	3,007	1,476	15,813
Hurricane Sale	2,905	14,706	6,344	(15,619)	13,203	16,559	32,645	16,740	17,087	18,470	8,801	12,135	143,776
Learning Juniper Revenue													
Total Long Term Firm Sales	\$ 307,050	\$ 351,018	\$ 328,718	\$ 562,702	\$ 401,725	\$ 632,066	\$ 757,297	\$ 693,171	\$ 461,402	\$ 206,272	\$ 543,973	\$ 294,598	\$ 5,521,082
Total Short Term Firm Sales	\$ 12,892,562	\$ 19,180,290	\$ 12,820,867	\$ 12,068,533	\$ 12,305,306	\$ 9,948,404	\$ 10,655,472	\$ 13,018,441	\$ 29,768,701	\$ 11,631,628	\$ 18,055,217	\$ 13,737,451	\$ 175,995,889
Total Secondary Sales	\$ 13,109,632	\$ 19,531,308	\$ 13,149,584	\$ 12,631,452	\$ 12,707,604	\$ 10,580,470	\$ 11,415,769	\$ 13,711,611	\$ 30,230,103	\$ 11,838,200	\$ 18,579,190	\$ 14,032,049	\$ 181,516,972
Total Special Sales For Resale													
Purchased Power & Net Interchange													
Long Term Firm Purchases	1,433,834	923,575	960,172	902,074	881,041	735,019	630,918	732,018	769,804	1,066,529	1,338,387	1,438,375	11,812,145
Cedar Springs Wind	1,139,707	760,648	772,525	750,440	686,074	546,258	407,593	580,602	607,782	879,546	1,034,549	1,200,210	9,345,935
Combine Hills Wind	441,377	547,648	554,512	320,257	426,978	395,829	397,918	428,586	368,014	380,626	488,734	536,960	5,245,440
Cove Mountain Solar	180,930	242,729	278,918	389,429	479,065	443,434	356,290	396,151	373,772	280,072	237,279	165,731	3,843,279
Cove Mountain Solar 2 - Facebook	85,547	1,628,638	32,000	1,723,368	1,723,368	1,723,368	1,723,368	1,723,368	1,723,368	1,723,368	1,723,368	1,723,368	17,233,680
East Mountain - UAMPS/UMPA	3,092,847	2,828,938	2,944,190	2,138,010	2,203,934	2,956,683	3,249,866	2,888,461	2,495,855	3,249,866	3,249,866	3,432,482	25,536,814
Genstate	159,301	183,309	165,365	2,146,988	173,900	500,979	600,979	488,884	273,484	174,384	173,292	250,986	3,687,449
Hunter Solar	150,059	150,059	100,810	150,059	150,059	150,059	150,059	150,059	150,059	150,059	150,059	150,059	1,500,590
Hurricane Purchase	547,744	609,120	609,120	972,486	732,774	762,009	677,166	703,610	627,678	469,567	408,510	299,382	6,810,046
MagCorp Reserves	19,381	18,481	14,769	14,362	9,631	11,303	20,096	24,761	21,073	16,194	11,776	13,107	194,933
Milford Solar - Facebook Oregon	344,048	327,810	348,804	334,330	345,704	333,230	301,725	293,365	296,202	255,749	263,625	254,421	3,689,014
Millican Solar	382,777	602,765	602,765	715,101	862,982	843,850	646,904	699,068	655,976	483,023	421,113	277,632	7,010,236
Monsanto Reserves	1,666,960	2,125,243	1,666,960	1,666,960	1,666,960	1,666,960	1,666,960	1,666,960	1,666,960	1,666,960	1,666,960	1,666,960	20,984,019
Nucor	609,450	609,450	609,450	609,450	609,450	609,450	609,450	609,450	609,450	609,450	609,450	609,450	7,313,400
Old Mill Solar	9,205	24,272	27,821	52,993	49,003	106,300	141,926	80,142	67,950	26,243	10,738	4,911	601,349
PacifiCorp Solar	55,373	216,957	176,730	146,763	193,334	792,316	520,360	345,193	371,583	166,280	169,273	101,940	3,122,134
Rock River Wind	11,759	146,111	149,700	207,280	221,297	218,179	240,882	215,658	169,689	113,671	116,629	46,507	1,784,728
Squid Solar	514,018	596,926	434,722	371,360	267,012	183,864	132,883	229,058	253,693	358,200	504,216	-	3,845,352
Small Purchases east	2,597	2,527	2,225	2,088	1,776	1,946	1,955	2,310	2,198	3,127,800	3,964,451	2,755	4,813,163
Small Purchases west	279,473	882,740	300,666	343,932	289,796	849,247	676,539	533,734	656,806	609,173	683,690	672,214	6,778,010
Three Buttes Wind	2,117,297	1,630,150	1,356,865	1,532,336	1,305,728	969,398	935,946	1,097,200	1,135,692	1,794,882	2,372,849	3,162,382	19,230,724
Top of the World Wind	4,767,549	3,123,515	2,596,302	2,896,323	2,341,146	2,066,136	1,783,764	2,221,006	2,226,789	3,379,071	4,764,867	6,402,157	38,338,725
Wolverine Creek Wind	786,984	1,320,589	700,446	764,877	768,206	820,357	491,332	677,471	637,424	957,502	990,690	1,574,799	10,470,678
Long Term Firm Purchases Total	\$ 18,515,284	\$ 19,784,265	\$ 16,126,388	\$ 16,993,992	\$ 16,667,310	\$ 21,688,842	\$ 18,839,892	\$ 18,246,349	\$ 18,227,063	\$ 18,873,924	\$ 21,380,434	\$ 22,967,506	\$ 228,317,270

Exhibit PAC/202

Exhibit PAC/202
PacifiCorp
Adjusted Actual 2021 Net Power Cost

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total 2021
Coal Fuel Burn Expense													
Cholla	50,052	(0)											50,052
Colstrip	1,676,659	1,291,056	1,772,641	883,247	978,180	953,369	1,489,346	1,237,384	1,553,054	886,115	1,224,520	1,516,331	15,461,901
Craig	2,329,341	1,936,368	2,151,511	2,196,588	2,168,336	2,596,789	1,991,136	1,921,375	1,339,767	2,282,121	1,735,301	954,963	23,605,627
Dave Johnston	3,494,853	3,653,370	3,434,747	2,398,185	3,907,882	3,365,007	3,726,240	3,845,109	4,094,640	2,179,659	1,970,588	3,250,857	39,231,088
Hayden	1,028,217	850,283	924,916	805,494	621,625	1,220,262	1,302,610	1,159,779	441,554	670,919	569,084	1,145,461	10,749,204
Hunter	12,065,636	10,061,518	10,880,002	10,110,989	10,068,337	11,296,908	11,827,348	12,413,075	12,111,126	11,370,333	10,610,909	9,960,190	132,796,367
Huntington	9,153,947	9,080,817	9,489,256	9,193,960	10,284,964	9,011,374	13,139,516	13,080,444	11,455,921	11,453,917	10,310,671	10,155,914	129,421,343
Lake Erie	13,876,426	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	14,746,671	147,466,711
Naughton 1 & 2	6,877,365	5,212,414	5,161,608	2,976,136	4,391,668	5,341,413	7,084,825	6,137,763	5,770,762	4,805,419	5,743,354	7,457,672	67,311,794
Wyedak	1,928,353	1,144,054	1,827,439	1,659,613	1,565,618	1,736,693	1,727,390	1,981,745	1,969,084	1,926,650	1,675,607	1,067,232	20,368,977
Total Coal Fuel Burn Expense	\$ 51,995,124	\$ 47,159,560	\$ 54,070,695	\$ 44,224,089	\$ 51,006,986	\$ 57,362,295	\$ 62,995,926	\$ 60,598,224	\$ 55,606,820	\$ 53,308,131	\$ 45,468,713	\$ 46,766,502	\$ 630,442,064
Gas Fuel Burn Expense													
Chehalis	\$ 5,927,705	\$ 6,853,641	\$ 6,441,153	\$ 6,318,969	\$ 3,017,204	\$ 5,495,737	\$ 5,744,336	\$ 7,721,628	\$ 7,958,480	\$ 7,855,570	\$ 5,406,427	\$ 11,651,237	\$ 80,392,088
Current Creek	6,107,319	6,873,961	5,244,474	4,371,196	4,721,089	6,090,611	5,893,195	5,582,601	2,400,269	1,435,567	7,534,114	7,913,584	64,287,970
Gadsby	82,147	(268)	-	-	107,482	1,359,364	1,633,526	1,063,017	277,278	(633)	-	137,484	4,659,396
Gadsby CT	25,446	123,680	122,009	135,801	69,699	71,925	46,220	107,889	60,434	116,686	129,722	73,829	1,083,661
Hermiston	2,855,397	4,249,790	2,694,088	916,890	2,938,272	3,105,102	3,698,614	3,838,869	4,402,121	3,802,164	4,512,585	4,500,817	41,464,719
Lake Erie	6,956,136	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	6,997,782	69,977,822
Lake Erie 2	5,914,633	6,179,032	4,583,730	3,176,619	5,762,634	6,194,611	7,171,337	6,630,977	4,892,053	3,969,910	6,987,230	9,882,095	74,919,700
Naughton 3	201,162	749,619	204,615	1,697,214	1,219,165	2,351,767	2,309,835	1,782,908	1,533,531	169,679	472,349	187,235	12,873,070
Total Gas Fuel Burn Expense	\$ 26,626,164	\$ 32,322,245	\$ 24,511,185	\$ 23,067,071	\$ 22,762,594	\$ 31,648,923	\$ 32,533,179	\$ 31,550,116	\$ 24,580,893	\$ 23,283,750	\$ 34,586,937	\$ 43,919,157	\$ 351,392,214
Other Generation													
Black Cap Solar	\$ 3,158	\$ 8,508	\$ 7,272	\$ 13,091	\$ 10,560	\$ 27,750	\$ 49,858	\$ 21,980	\$ 25,239	\$ 14,648	\$ 7,170	\$ 4,242	\$ 193,475
Blundell	343,918	386,078	398,944	460,677	471,818	359,171	388,579	384,665	383,627	365,596	391,655	487,460	4,822,176
Total Other Generation	\$ 347,075	\$ 394,586	\$ 406,216	\$ 473,767	\$ 482,378	\$ 388,921	\$ 438,437	\$ 406,645	\$ 408,865	\$ 380,234	\$ 398,825	\$ 491,702	\$ 5,015,651
Net Power Cost	\$ 119,875,050	\$ 117,874,311	\$ 123,665,492	\$ 117,738,366	\$ 121,409,692	\$ 204,805,126	\$ 238,156,494	\$ 167,866,354	\$ 120,136,027	\$ 132,799,407	\$ 114,629,380	\$ 140,911,768	\$ 1,719,872,469
Net Power Cost/Net System Load	\$22.44	\$24.76	\$25.22	\$26.07	\$25.45	\$36.67	\$38.31	\$30.16	\$24.70	\$28.72	\$24.01	\$27.58	

Exhibit PAC/202

Exhibit PAC/202
PacifiCorp
Adjusted Actual 2021 Net Power Cost

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total 2021
Net System Load	5,341,857	4,757,267	4,902,982	4,517,007	4,770,299	5,741,125	6,217,425	5,565,188	4,863,190	4,623,754	4,774,120	5,110,124	61,184,337
Special Sales For Resale													
Long Term Firm Sales	11,031	12,608	11,924	23,570	14,583	21,062	24,126	23,488	14,215	4,043	17,769	7,754	186,193
Black Hills	20	19	21	21	23	24	20	23	24	24	22	46	270
Hurricane Sale	11,051	12,627	11,945	23,591	14,606	21,086	24,152	23,513	14,239	4,043	17,810	7,800	186,463
Total Long Term Firm Sales	483,759	528,892	478,766	422,521	442,517	270,776	219,896	285,432	443,105	274,465	442,707	359,893	4,652,718
Total Short Term Firm Sales	494,810	541,508	490,711	446,113	457,123	291,862	244,048	308,945	457,344	278,508	460,518	367,683	4,839,182
Total Secondary Sales	5,836,667	5,298,775	5,393,693	4,963,120	5,227,421	6,032,997	6,461,472	5,874,133	5,320,534	4,902,262	5,234,637	5,477,817	66,023,519
Total Requirements													
Purchased Power & Net Interchange													
Long Term Firm Purchases	92,505	59,595	61,947	59,198	56,841	47,421	40,704	47,227	49,665	68,634	86,348	92,708	762,074
Coal	64,390	42,074	43,645	42,398	38,761	30,862	23,028	31,672	34,338	49,692	59,449	67,808	528,019
Central Springs III Wind	8,828	10,953	10,690	6,405	8,540	7,117	7,958	8,572	7,380	11,597	9,775	10,739	104,909
Combine Hills Wind	7,906	10,051	11,549	16,498	19,559	18,362	14,753	16,404	15,475	11,597	9,825	6,863	159,142
Cove Mountain Solar	16,509	20,746	23,960	34,488	41,256	37,666	32,840	32,927	31,748	23,906	20,253	14,063	331,360
FaceBook	41,654	40,460	38,068	5,201	9,088	40,380	50,120	40,044	39,120	51,449	53,614	58,057	467,255
Deseret Purchase	4,120	3,744	3,404	3,296	4,120	7,424	8,776	8,032	5,200	3,720	3,684	5,296	60,816
Eagle Mountain - UAMPS/LMPPA	-	-	-	-	5,794	13,434	15,586	15,652	2,425	-	-	-	52,833
Gemstate	-	-	-	-	29,078	30,238	26,872	23,174	24,908	18,634	16,211	11,860	259,730
Hunter Solar	283	271	215	212	144	169	291	356	303	232	188	188	2,833
Hurricane Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
MagCorp Reserves	14,683	16,031	23,121	27,430	33,068	32,369	24,891	26,815	25,162	18,328	16,153	10,649	268,900
Milford Solar - FaceBook Oregon	-	-	-	-	13,056	14,006	16,944	10,371	14,000	9,231	4,467	3,591	118,751
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-
Mozzato Reserves	-	-	-	-	-	-	-	-	-	-	-	-	-
Nucor	-	-	-	-	-	-	-	-	-	-	-	-	-
Old Mill Solar	405	494	1,034	1,375	1,483	1,575	1,268	1,191	941	411	231	89	10,498
Parant III Solar	2,371	2,465	3,462	5,063	5,901	6,003	5,040	5,161	4,800	3,144	2,864	1,989	48,263
PGE Cove	1,013	941	1,011	978	1,014	990	1,014	1,014	990	1,014	847	965	11,791
Prineville Solar	14,488	7,901	8,185	11,333	12,084	11,924	13,170	11,654	9,278	6,215	3,589	2,543	97,891
Rock River Wind	-	-	-	-	7,526	5,182	3,728	6,456	7,150	10,096	14,211	10,381	108,381
Sigurd Solar	-	-	6,682	21,597	24,313	24,067	20,156	23,487	21,973	11,576	14,673	10,194	178,716
Small Purchases east	28	27	25	21	18	20	20	24	23	(231)	27	28	29
Snell Purchases west	11,645	11,271	13,100	11,474	10,843	8,379	7,964	8,888	9,233	11,566	12,443	15,596	130,602
Anor IX - Univ of Utah	33,169	23,352	21,070	21,186	15,740	15,740	14,570	15,850	17,800	23,389	28,520	19,303	300,376
Three Buttes Wind	6,165	6,165	6,165	6,165	6,165	6,165	6,165	6,165	6,165	6,165	6,165	6,165	61,650
Thompson Wind	12,385	21,290	11,292	12,331	12,384	13,225	7,921	10,922	10,276	15,438	15,971	25,388	168,800
Wolverine Creek Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Firm Purchases Total	391,044	354,341	360,080	369,171	384,857	385,262	353,270	366,328	350,671	373,421	419,558	448,408	4,556,410

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PacifiCorp
Adjusted Actual 2021 Net Power Cost

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Total 2021
Coal Generation													
Cholla	104,588	78,145	103,451	46,926	53,624	56,101	90,219	67,088	90,405	42,800	71,051	91,274	895,672
Colstrip	106,403	102,633	111,805	104,353	104,855	109,905	98,664	105,806	91,374	119,314	104,113	104,239	1,268,464
Craig	332,159	345,003	317,814	223,600	360,980	317,847	360,089	344,876	366,514	192,253	232,553	290,304	3,001,242
Dave Johnston	40,323	38,201	38,068	34,275	27,887	50,439	54,936	49,567	19,675	22,983	63,377	45,207	442,938
Hunter	686,953	585,988	639,860	585,710	601,988	676,648	644,174	748,269	724,128	684,300	628,464	590,649	7,796,581
Huntington	427,056	443,215	443,215	465,320	465,302	624,167	624,167	603,953	572,724	562,324	544,282	544,282	6,232,658
La Grange	575,416	575,416	575,416	575,416	575,416	575,416	575,416	575,416	575,416	575,416	575,416	575,416	6,232,658
Nashua	249,784	184,414	201,910	97,735	142,112	178,527	216,955	203,159	191,196	160,111	194,880	248,866	2,272,649
Nashua 1 & 2	122,093	70,464	114,482	96,517	98,685	118,136	109,807	133,216	117,577	123,089	97,648	68,146	1,270,750
Wyedak	2,621,548	2,383,053	2,635,413	2,160,526	2,521,297	2,812,172	3,054,148	3,078,657	2,888,119	2,673,823	2,331,859	2,429,642	31,590,257
Total Coal Generation	1,087,393	892,895	1,057,718	1,043,681	983,789	1,249,890	1,379,256	1,374,651	1,113,584	796,184	1,065,742	1,227,003	13,311,686
Gas Generation													
Chehalis	177,913	145,988	244,377	267,112	88,468	179,168	195,074	259,150	242,514	151,640	104,208	192,625	2,248,237
Current Creek	274,863	226,304	235,515	206,381	213,553	270,033	293,616	289,163	289,163	53,392	259,427	260,287	2,746,290
Gadsby	(352)	(307)	(307)	(480)	(636)	21,984	31,372	20,436	3,486	(297)	(284)	33	74,605
Gadsby CT	144,915	126,389	147,069	52,184	537	1,645	811	2,848	1,313	189	140	259	8,403
Hermiston	234,963	210,361	231,684	254,288	230,622	263,235	138,949	140,206	144,735	102,114	127,644	126,727	1,521,009
Lake Side 1	252,754	216,480	199,985	215,285	284,657	322,192	393,261	355,405	261,208	302,602	251,557	316,478	3,096,959
Lake Side 2	2,594	7,585	(1,046)	46,262	27,350	60,594	64,405	53,460	57,484	(863)	4,531	(957)	3,232,396
Nashua 3													323,797
Total Gas Generation	1,087,393	892,895	1,057,718	1,043,681	983,789	1,249,890	1,379,256	1,374,651	1,113,584	796,184	1,065,742	1,227,003	13,311,686
Hydro Generation													
West Hydro	414,039	254,628	211,698	212,360	216,735	170,409	124,148	96,269	88,912	125,248	392,387	284,132	2,580,965
East Hydro	11,023	11,468	15,466	16,232	27,720	36,685	35,872	23,434	9,029	5,730	8,266	7,433	208,357
Total Hydro Generation	425,062	266,096	227,164	228,592	244,455	207,094	160,020	119,703	97,941	130,978	390,653	291,565	2,789,322
Other Generation													
Black Cap Solar	139	175	270	340	319	414	444	324	347	200	154	76	3,232
Bundick	22,722	20,411	20,980	1,684	5,038	16,912	21,282	21,419	15,300	22,698	20,270	21,713	211,226
Chippewa	52,356	49,189	57,198	55,130	43,816	51,010	51,010	51,010	51,010	51,010	51,010	51,010	616,520
Duane Wind	52,356	50,189	57,198	31,630	28,904	18,059	14,281	22,100	23,339	37,528	55,654	63,582	435,043
Elba Flats Wind	78,796	95,545	64,680	55,634	47,905	29,209	22,296	37,389	39,153	56,221	95,431	114,555	738,904
Foote Creek Wind			5,232	16,659	14,107	10,770	9,772	16,285	17,591	19,359	21,456	23,281	154,512
Glenrock Wind	44,412	29,366	28,735	25,093	26,371	19,754	16,133	20,607	20,908	23,117	35,313	49,489	339,298
Glenrock II Wind	16,479	10,901	10,619	9,983	10,250	7,196	5,547	7,649	7,681	8,985	12,963	19,072	127,325
Goodnoe Wind	14,092	30,391	24,342	33,001	29,600	27,849	26,192	26,806	20,909	15,601	23,007	24,964	296,244
High Plains Wind	32,440	42,414	29,581	28,354	25,770	17,281	12,914	20,432	15,343	15,343	38,267	49,946	333,898
Leaning Jumper 1	9,495	32,691	19,989	30,194	30,437	28,051	36,150	26,879	20,140	22,660	16,430	20,525	293,641
Mariango I Wind	35,855	49,862	42,752	45,966	39,861	33,660	31,479	36,654	33,867	35,608	46,619	52,671	484,854
Mariango II Wind	18,092	25,509	20,366	23,692	19,368	17,062	17,594	18,489	16,950	18,401	24,667	27,340	247,430
McFadden Ridge Wind	9,421	13,202	9,153	8,838	7,667	5,386	4,117	6,993	6,828	4,732	11,659	15,127	102,523
Pony Mountain Wind	16,476	16,476	39,356	39,356	47,899	47,899	47,899	47,899	47,899	47,899	47,899	47,899	500,000
Reedley Wind	31,655	26,078	29,864	27,727	24,382	17,033	12,992	17,218	20,163	20,163	30,629	46,164	208,555
Seven Mile Wind	44,455	47,176	35,064	27,727	24,382	15,433	12,185	23,257	23,918	33,548	50,888	58,575	398,393
Seven Mile II Wind	8,853	9,625	7,960	5,750	5,216	3,332	2,566	5,073	5,349	7,174	10,463	11,475	82,266
TB Flats Wind I	56,075	87,009	74,494	57,363	51,017	39,695	30,301	45,928	42,944	41,645	96,403	125,260	748,134
TB Flats Wind II													302,406
Total Other Generation	580,413	647,243	598,170	544,963	490,159	389,339	378,018	484,594	460,560	551,570	829,838	985,087	6,900,284
Total Resources	6,836,667	5,298,775	5,393,693	4,963,120	5,227,421	6,032,987	6,461,472	5,874,133	5,230,534	4,902,262	5,234,637	5,477,817	66,023,519

Application No. 22-08-____
Exhibit No. PAC/203
Witness: Jack Painter

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Direct Testimony of
Jack Painter
Adjusted Actual/Projected 2022 Net Power Costs

August 2022

Exhibit PAC/203

Exhibit PAC/203
 PacificCorp
 Adjusted Actual/Projected 2022 Net Power Cost

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total 2022
Special Sales For Resale													
Long Term Firm Sales	\$ 786,193	\$ 568,783	\$ 722,192	\$ 754,255	\$ 791,733	\$ 679,614	\$ 715,227	\$ 710,776	\$ 701,872	\$ 666,259	\$ 666,259	\$ 718,566	\$ 8,481,730
Black Hills	1,495	1,323	1,448	1,546	1,650	648	670	670	648	670	648	670	12,084
Hurricane Sale	52	9,858	19,170	26,452	67,048	16,343	31,789	45,155	27,573	17,893	13,289	17,635	292,386
Licensing Juniper Revenue	-	-	-	-	-	-	-	-	-	-	693,115	700,517	1,393,632
PSCO Sale	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Long Term Firm Sales	\$ 787,740	\$ 579,964	\$ 742,810	\$ 782,253	\$ 860,431	\$ 696,605	\$ 747,696	\$ 756,600	\$ 730,093	\$ 684,921	\$ 1,373,311	\$ 1,437,388	\$ 10,179,812
Total Short Term Firm Sales	\$ 18,494,568	\$ 17,356,420	\$ 18,243,431	\$ 24,822,321	\$ 12,982,719	\$ 42,988,204	\$ 47,176,235	\$ 69,467,227	\$ 82,076,809	\$ 43,261,877	\$ 40,939,773	\$ 42,072,398	\$ 459,887,003
Total Secondary Sales	\$ 19,282,328	\$ 17,935,383	\$ 18,986,242	\$ 25,604,574	\$ 13,843,150	\$ 43,684,809	\$ 47,923,931	\$ 70,223,827	\$ 82,808,902	\$ 43,946,798	\$ 42,313,084	\$ 43,509,786	\$ 470,066,815
Total Special Sales For Resale													
Purchased Power & Net Interchange													
Long Term Firm Purchases	\$ 1,544,100	\$ 1,335,052	\$ 1,334,156	\$ 1,247,861	\$ 1,039,126	\$ 743,881	\$ 742,782	\$ 585,990	\$ 827,498	\$ 1,090,534	\$ 1,068,343	\$ 1,341,083	\$ 12,900,414
Cedar Springs Wind	1,239,185	1,023,582	1,029,524	940,637	809,592	565,348	564,386	445,199	628,829	828,668	811,823	1,018,881	9,905,834
Cedar Springs III Wind	205,421	396,927	356,119	456,263	481,634	411,475	461,549	388,434	366,893	381,121	468,154	581,128	4,948,119
Combine Hills Wind	221,300	266,708	329,959	408,421	777,189	495,521	441,868	418,069	358,534	288,020	207,377	170,493	4,344,089
Cove Mountain Solar	918,375	1,119,103	1,144,116	1,989,620	2,463,720	927,946	878,000	878,000	752,940	606,117	433,060	350,037	12,534,681
Deseret Purchase	3,669,572	3,228,794	3,285,166	3,159,551	3,044,783	2,936,250	3,059,629	3,059,629	3,027,673	3,059,629	2,894,177	3,059,629	37,222,972
Elgin Mountain - UAMPS/LUMPA	160,059	-	-	-	-	150,100	150,100	150,100	150,100	150,100	150,100	150,100	1,800,985
Geoplate Solar	150,059	-	-	-	-	150,059	150,059	150,059	150,059	150,059	150,059	150,059	1,800,985
Horseshoe Solar	-	-	-	-	-	713,256	695,674	650,775	593,233	486,297	359,441	288,882	3,757,558
Hunter Solar	419,390	490,438	556,046	682,296	759,059	793,441	754,302	709,070	661,156	564,215	400,171	325,021	7,114,607
Hurricane Purchase	19,600	21,431	17,609	14,518	10,595	16,145	16,145	16,145	16,128	16,145	16,145	16,145	196,716
MagCorp Reserves	254,378	199,990	213,973	219,361	210,203	284,700	284,700	282,600	248,600	240,600	280,700	284,700	2,914,506
Millican Solar	116,522	163,441	165,451	232,295	299,715	342,866	386,117	341,184	274,582	179,792	115,156	79,022	2,696,141
Milford Solar - FaceBook Oregon	378,796	455,961	564,804	703,171	816,713	833,649	742,399	714,897	666,681	572,668	391,173	308,226	7,113,940
Monsanto Reserves	2,090,911	1,716,667	1,716,667	1,716,667	1,716,667	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	20,974,477
Nucor	609,450	609,450	690,000	690,000	690,000	594,150	594,150	594,150	594,150	594,150	594,150	594,150	7,417,950
Old Mill Solar	13,247	18,123	21,242	58,944	89,196	-	-	-	-	-	-	-	170,752
Old Mill Solar	13,247	18,123	21,242	58,944	89,196	-	-	-	-	-	-	-	170,752
PG&E Oregon	16,184	16,379	16,379	16,379	16,379	12,899	12,899	12,899	12,899	12,899	12,899	12,899	127,696
Prineville Solar	16,184	16,379	16,379	16,379	16,379	227,791	256,526	226,673	182,425	119,449	76,506	52,500	1,840,697
Rocket River Wind	80,011	111,715	137,888	170,393	198,819	227,791	256,526	226,673	182,425	119,449	76,506	52,500	1,840,697
Rocket Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Squid Solar	399,536	440,257	364,803	337,190	595,444	706,593	656,935	602,207	562,226	456,223	320,617	269,324	5,711,356
Small Purchases east	2,149	3,436	2,625	3,246	1,894	1,203	1,226	1,202	1,154	1,157	1,209	1,176	21,676
Small Purchases west	-	-	-	-	-	-	-	-	-	-	-	-	-
Amor IX - Univ of Utah	632,002	566,144	513,151	533,564	791,428	1,205,752	805,618	949,664	1,185,169	1,795,443	2,852,785	2,572,230	3,036,288
Three Buttes Wind	2,859,002	2,205,573	1,874,077	1,909,680	1,505,340	1,205,752	1,205,752	1,205,752	1,205,752	1,205,752	1,205,752	1,205,752	21,057,233
Top of the World	5,496,835	4,429,941	3,909,170	3,945,938	3,135,672	2,401,211	1,720,683	1,871,512	2,296,328	3,513,955	4,491,128	4,872,798	41,985,169
UT Solar Adjustment	-	-	-	-	-	(1,689,874)	(1,623,621)	(1,623,621)	(1,336,805)	(1,082,813)	(792,501)	(624,919)	(6,688,306)
Wolverine Creek Wind	438,945	564,321	901,419	1,195,383	1,058,043	855,566	677,710	644,619	761,332	638,061	974,305	976,277	9,688,963
Long Term Firm Purchases Total	\$ 22,107,481	\$ 19,868,125	\$ 19,616,851	\$ 20,821,505	\$ 21,000,087	\$ 14,895,224	\$ 14,026,693	\$ 13,700,972	\$ 14,539,058	\$ 16,325,227	\$ 17,443,600	\$ 18,384,693	\$ 212,729,427

Adjusted Actual/Projected 2022 Net Power Cost

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Total 2022
Coal Fuel Burn Expense													
Cholla	\$ 1,834,186	\$ 1,783,709	\$ 1,901,841	\$ 1,029,683	\$ 1,195,514	\$ 2,089,100	\$ 1,498,150	\$ 1,702,811	\$ 1,473,835	\$ 991,072	\$ 1,581,417	\$ 1,342,747	\$ 18,384,065
Coalstrip	2,683,121	765,612	1,772,124	2,674,311	1,565,300	1,308,784	1,580,835	1,659,385	1,397,883	1,240,167	1,437,655	1,639,566	19,744,742
Craig	3,473,429	3,525,792	4,301,619	2,094,151	2,841,582	6,615,116	4,419,952	5,123,982	4,239,130	5,129,063	3,563,649	4,434,663	49,760,728
Dave-Johnston	1,715,645	902,999	987,760	953,285	778,701	981,062	1,050,021	878,953	1,255,763	883,170	1,084,644	1,027,088	12,468,321
Hunter	11,311,713	8,618,972	5,979,201	7,308,809	10,224,004	9,456,610	10,610,009	11,275,243	10,394,725	11,845,769	11,229,463	11,215,765	119,667,204
Intermountain	19,894,657	12,570,372	14,969,930	13,932,390	12,637,587	15,516,170	20,290,876	20,972,890	18,863,689	17,459,415	18,117,025	14,599,628	191,824,549
Johnston	6,240,360	2,465,250	2,654,518	2,901,244	3,623,147	4,592,053	3,219,263	3,346,310	2,836,220	3,224,918	2,504,233	2,814,335	39,821,837
Naughton 1 & 2	1,427,286	1,881,387	2,063,908	1,199,821	56,658	2,857,920	2,437,167	2,281,738	1,912,279	1,922,570	1,274,742	966,600	20,201,974
Wyodak													
Total Coal Fuel Burn Expense	\$ 54,002,478	\$ 41,862,325	\$ 44,694,584	\$ 41,229,337	\$ 43,218,878	\$ 57,048,182	\$ 55,704,447	\$ 58,325,852	\$ 52,509,944	\$ 47,302,758	\$ 47,670,008	\$ 49,145,727	\$ 592,714,518
Gas Fuel Burn Expense													
Chehalis	\$ 14,684,917	\$ 6,653,258	\$ 3,750,208	\$ 10,652,327	\$ 766,625	\$ 6,925,167	\$ 7,154,548	\$ 6,282,529	\$ 6,747,122	\$ 10,548,800	\$ 9,411,095	\$ 8,355,130	\$ 91,891,724
Current Creek	8,246,975	7,565,226	6,298,628	8,922,213	8,631,237	3,422,061	6,256,013	4,377,875	3,283,639	5,837,512	8,463,789	6,799,230	78,204,396
Gadsby	115,610	76,027	(5,523)	258,324	918,113	1,126,349	1,825,187	2,145,922	1,620,630	1,590,335	1,622,765	2,314,587	13,898,326
Gadsby CT	90,555	67,088	131,206	53,508	38,346	176,178	867,488	947,339	710,333	1,957,888	1,044,114	1,088,165	6,762,267
Hermiston	4,355,521	4,059,630	4,294,234	6,174,137	6,670,366	19,570	6,396,861	5,091,742	2,236,152	4,069,867	2,204,491	5,651,370	40,031,471
Lake Side 1	9,352,525	7,230,333	7,277,500	7,889,624	11,025,289	4,839,588	5,390,588	5,220,795	3,884,667	5,377,007	4,368,629	5,891,917	80,447,471
Lake Side 2	10,000,285	9,230,333	7,277,500	7,889,624	10,025,289	4,839,588	5,390,588	5,220,795	3,884,667	5,377,007	4,368,629	5,891,917	80,447,471
Naughton 3	188,481	185,557	184,574	2,817,179	5,144,382	912,161	2,448,377	3,006,480	943,702	1,706,952	1,633,957	4,455,964	22,747,855
Total Gas Fuel Burn Expense	\$ 47,454,385	\$ 35,659,375	\$ 27,170,890	\$ 45,848,291	\$ 44,035,428	\$ 23,269,286	\$ 32,050,790	\$ 29,697,697	\$ 23,927,918	\$ 32,889,030	\$ 35,166,188	\$ 39,163,714	\$ 416,132,983
Other Generation													
Black Cap Solar	\$ 4,725	\$ 9,905	\$ 11,750	\$ 32,048	\$ 22,948	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,376
Blundell Bottoming Cycle													
Blundell	382,140	405,021	413,835	375,227	368,142	603,311	550,381	583,000	566,337	500,317	330,420	254,444	5,312,574
Total Other Generation	\$ 386,865	\$ 414,926	\$ 425,585	\$ 407,275	\$ 391,090	\$ 603,311	\$ 550,381	\$ 583,000	\$ 566,337	\$ 500,317	\$ 330,420	\$ 254,444	\$ 5,393,950
Net Power Cost	\$ 149,778,529	\$ 128,113,230	\$ 123,313,257	\$ 134,350,434	\$ 142,097,557	\$ 121,481,938	\$ 217,851,807	\$ 192,163,662	\$ 147,337,882	\$ 110,906,653	\$ 104,383,579	\$ 107,453,980	\$ 1,678,932,309
Net Power Cost/Net System Load	\$ 27.45	\$ 26.25	\$ 25.29	\$ 29.27	\$ 30.05	\$ 23.87	\$ 37.19	\$ 34.24	\$ 30.07	\$ 23.22	\$ 21.37	\$ 19.90	

Application No. 22-08-____
Exhibit No. PAC/204
Witness: Jack Painter

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

REDACTED

Exhibit Accompanying Direct Testimony of

Jack Painter

ARB Administrative Costs

August 2022

**CONFIDENTIAL Exhibit PAC/204
 California Air Resources Board
 Administrative Costs⁽¹⁾**

CONFIDENTIAL INFORMATION IS SHADED

	<u>2021</u> <u>Forecast</u>	<u>2021</u> <u>Actual</u>	<u>2022</u> <u>Forecast</u>	<u>2022</u> <u>Forecast/Actual</u>	<u>2023</u> <u>Forecast</u>
CARB Implementation Fees	██████████	██████████	██████████	██████████	██████████
Mandatory Reporting Verification Costs	██████████	██████████	██████████	██████████	██████████
Total Administrative Costs ⁽¹⁾	\$ <u>82,419</u>	\$ <u>84,980</u>	\$ <u>46,189</u>	\$ <u>46,189</u>	\$ <u>86,625</u>

⁽¹⁾ Excludes estimated emission obligation cost from the purchase of allowances and forecast revenue from the sale of directly allocated allowances. On August 1, 2013 PacifiCorp filed a separate application forecasting the costs from the purchase of allowances and revenue from the sale of allowances.