Application No. 22-08-___
Exhibit No. PAC/100
Witness: Ramon J. Mitchell

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

PACIFICORP

REDACTED

Direct Testimony of Ramon J. Mitchell

ECAC Overview and Discussion of Net Power Cost Modeling

August 2022

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ATTACHED EXHIBITS

Exhibit PAC/101 – Net Power Cost Analysis—Projected 2023 NPC

Exhibit PAC/102 – Net Power Cost Analysis—Prior ECAC's Projected 2022 NPC

Confidential Exhibit PAC/103 – Net Power Cost Analysis—Projected NPC Comparison to Prior ECAC

Exhibit PAC/104 – 2023 California-allocated NPC

I. INTRODUCTION AND QUALIFICATIONS

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

A. My name is Ramon J. Mitchell and my business address is 825 NE Multnomah Street, Suite 600, Portland, Oregon 97232. My title is Manager, Net Power Costs.

Q. Briefly describe your education and business experience.

A. I received a Master of Business Administration degree from the University of Portland and a Bachelor of Arts degree in Economics from Reed College. I was first employed by the Company in 2015 and during my time at the Company I have held various positions in the regulation, merchant, and transmission departments. After a brief departure from the Company, in 2021 I returned to PacifiCorp as Manager, Net Power Costs. In my current role I am responsible for leading and overseeing all modeling efforts associated with the Company's regulatory net power costs and various other regulatory filings.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have filed testimony before the Public Utility Commission of Oregon.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding.

A. I present an overview of the Company's proposed Energy Cost Adjustment Clause (ECAC) for calendar year 2023 (2023 ECAC). Specifically, my testimony:

- Presents an overview of the ECAC and the time periods associated with the ECAC's Offset and Balancing rates.

- Describes the determination of 2023 Projected Net Power Costs (NPC) using the Company's production cost model, Aurora;
- Presents the 2023 Projected NPC, which are used to develop the 2023 Offset Rate;
- Presents a comparison of the 2023 Projected NPC to the 2022 Projected NPC from the 2022 ECAC; and
- Includes a discussion about the Company's participation in the energy imbalance market (EIM) with the California Independent System Operator (CAISO) and the benefits from the EIM that are passed through to customers.

III. ECAC RATES AND TIME PERIODS

Q. What are the main components of the ECAC?

A. The ECAC Offset Rate and the ECAC Balancing Rate.

Q. What time periods are relevant to the ECAC?

A. The Offset Period, the Balancing Period, and the Intermediate Period.

Q. In this filing, what time period does the Offset Period represent?

A. The Offset Period includes the 12-month period beginning January 1, 2023, and extending through December 31, 2023 (i.e., calendar year 2023). The Offset Period is the rate effective period.

Q. In this filing, what time period does the Balancing Period represent?

A. The Balancing Period includes the 24-month period beginning January 1, 2021, and extending through December 31, 2022 (i.e., calendar years 2021 and 2022).

Q. In this filing, what time period does the Intermediate Period represent?

A. The Intermediate Period includes the portion of the Balancing Period from June 1, 2022, through December 31, 2022.

A. ECAC Offset Rate

Q. What is the ECAC Offset Rate?

A. The ECAC Offset Rate is an unbundled rate established either during the most recent California general rate case or between general rate cases if the new ECAC Offset Rate changes by more than 5 percent and is equal to the Offset Period's California-allocated Projected NPC plus Other Costs for Recovery, all divided by California projected sales and adjusted for the ECAC billing factor (which is the adjustment rate for franchise fees and uncollectible accounts expenses from the most recent general rate case).

Q. What is Projected NPC.

A. Projected NPC is the total-company sum of forecasted NPC components that are calculated by the Company's power cost model. The Projected NPC spans the entirety of the Intermediate Period and the Offset Period.

Q. What are Other Costs for Recovery

A. Other Costs for Recovery include California-allocated fuel stock carrying charges, California Air Resources Board administrative costs, net metering surplus compensation, renewable energy credit purchases for renewables portfolio standard compliance, renewable energy production tax credits, start-up fuel costs, reasonable energy price qualifying facility costs, EIM body of state regulators costs and Western Power Pool western resource adequacy program costs.

B. ECAC Balancing Rate

Q. What is the ECAC Balancing Rate?

A. The ECAC Balancing Rate is the Balancing Period's California-allocated share of the difference between prior ECACs' Projected NPC and Adjusted Actual/Projected NPC, plus Other Costs for Recovery all adjusted by California actual sales, divided by California projected sales and adjusted for the ECAC billing factor.

Q. What is Adjusted Actual NPC?

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

Q. What is Adjusted Actual/Projected NPC?

A. Adjusted Actual/Projected NPC is the combination of Adjusted Actual NPC for the portion of the Balancing Period for which Adjusted Actual NPC has been recorded and the Projected NPC for the remainder of the Balancing Period (this remainder is the Intermediate Period).

C. ECAC Rate Vintage

Q. What time periods are relevant to the ECAC Balancing Rate?

A. The ECAC Balancing Rate is based on the Balancing Period, which includes two sub-periods: one from January 1, 2021, to May 31, 2022, and the other is the Intermediate Period that runs from June 1, 2022, to December 31, 2022.

Q. Which NPCs are compared in the first sub-period of the ECAC Balancing Rate (January 1, 2021, to May 31, 2022)?

A. The first sub-period (January 1 to May 31, 2021) includes (1) the 2021 Projected NPC from the 2021 ECAC which is compared to the 2021 Adjusted Actual NPC, and (2) the 2022 Projected NPC from the 2022 ECAC which is compared to the 2022 Adjusted Actual NPC.

Q. Which NPCs are compared in the second sub-period of the ECAC Balancing Rate (June 1, 2022, to December 31, 2022)?

A. The second sub-period (the Intermediate Period), includes the 2022 Projected NPC from the 2022 ECAC compared to the 2023 Projected NPC from this filing, for the time period June 1, 2022, to December 31, 2022.

Q. What are the benefits of a two-year Balancing Period

A. As opposed to other states which have separate filings for offset and balancing rates, where each filing examines either the Offset Period or the first year of the Balancing Period, rebalancing and truing up rates within the second year of the Balancing Period provides rate stability and avoids rate shock. For example, if there are significant changes in market prices that impact NPC during the second year of the Balancing period, PacifiCorp's combined re-balance and true-up of rates provides for

incremental rate recovery that smooths out the effects from this market volatility. This avoids deferring intra-period rate changes to subsequent years, and potentially avoids accumulation of the deferred balance.

Q. Please provide an illustration of which NPC from which applications are compared against each other in the rates.

A. Please refer to Table 1 below.

Table 1

	Calendar Year 2021	01/2022 – 05/2022	06/2022 – 12/2022	Calendar Year 2023
ECAC Rate:	Balancing Rate	Balancing Rate	Balancing Rate	Offset Rate
ECAC Period:	Balancing Period	Balancing Period	Intermediate Period	Offset Period
Prior ECAC Applications:	2021 Projected NPC (2021 ECAC)	2022 (Jan - May) Projected NPC (2022 ECAC)	2022 (Jun - Dec) Projected NPC (2022 ECAC)	
Current ECAC Application:	2021 Adjusted Actual NPC	2022 (Jan - May) Adjusted Actual NPC	2022 (Jun - Dec) Projected NPC	2023 Projected NPC

IV. ECAC RATE OVERVIEW

Q. Please provide an overview of the ECAC filing.

A. In this 2023 ECAC filing, the Company is requesting to return approximately $1.0 million through the Balancing Rate to true-up collection of actual NPC during 2021 and 2022. The change in the Balancing Rate results in a $1.8 million decrease compared to rates currently in effect that were approved in Decision (D.) 21-11-001, the Company's 2021 ECAC and Greenhouse Gas (GHG) Application, Application (A.) 20-08-002. The Company is also proposing to adjust the Offset Rate for 2023 resulting in a rate increase of approximately $5.6 million, as compared to rates currently in effect that were approved in D.21-11-001. Compared to total-company

NPC proposed in the 2022 ECAC,[1] Projected NPC in the 2023 ECAC are higher by 20.0 percent. As shown in further detail in the testimony of Mr. Jack Painter, the proposed 2023 Offset Rate is $31.33 per megawatt-hour (MWh), which is an increase of 24.6 percent from the rate of $25.15 per MWh, which the Company proposed in its 2022 ECAC and GHG Application, A.21-08-004 (2022 ECAC Application). The Company's proposed change to the Offset Rate for 2023 satisfies the Commission's requirement that only increases or decreases greater than five percent from prior rates are permitted.

Calculations of the Balancing Rate and Offset Rate are provided in the testimony of Mr. Painter (Exhibit PAC/200). If approved, the proposed rates would take effect January 1, 2023. Ms. Judith M. Ridenour provides testimony describing the impact on customers' rates (Exhibit PAC/700).

Q. Please explain the status of the Company's 2022 ECAC Application.

A. The Company's 2022 ECAC Application has been fully heard and briefed and is awaiting a final decision. In preparing the 2023 ECAC Offset and Balancing Rates, the Company has assumed that the Offset and Balancing rates proposed in A.21-08-004 will be approved by the Commission.[2] Consistent with previous PacifiCorp ECAC applications, if the Commission modifies the proposed rates in its final decision, the Company will update this Application with supplemental testimony or an amended application to reflect those changes.[3]

[1] A Commission decision regarding the Company's 2022 ECAC Application in A.21-08-004 is still pending.
[2] The present rates and rate impact calculation presented in Exhibit PAC/700 do not reflect the pending rates proposed in A.21-08-004, but rather rates that are currently in place.
[3] *See In re PacifiCorp 2022 ECAC,* Dkt. A.21-08-004, Amended Application (Jan. 7, 2022).

V. 2023 PROJECTED NET POWER COSTS

Q. How does the Company calculate its Projected NPC?

A. Projected NPC are calculated for the Intermediate Period and the Offset Period based on forecasted data using the Aurora model, which is a production cost model that simulates the operation of the Company's power system on an hourly basis.

Q. Is the Company's general approach to the calculation of NPC using the Aurora model the same in this case as in the previous ECAC filing?

A. Yes. The Company used the Aurora model in its prior ECAC filing.

Q. What Aurora inputs were updated for this filing?

A. Aurora model inputs were updated to include:

- Updates to the Company's forward price curves for electricity and natural gas prices, with a vintage of March 31, 2022;
- New wholesale electricity sales and purchase transactions, both physical and financial;
- New natural gas sales and purchase transactions, both physical and financial;
- New wheeling contracts and updates to transmission paths and capacities, including on Company-owned transmission;
- Updates to existing contracts for wholesale sales and purchases of electricity and natural gas and for wheeling;
- New and updated coal supply and transportation contracts and costs;
- Updates to the capabilities of the Company's owned generation resources along with the cost to integrate wind generation, solar generation and load on the Company's system; and

- Updates to forecast loads.

Q. What reports does the Aurora model produce?

A. The major output from the Aurora model is the NPC report. The 2023 NPC report is attached as Exhibit PAC/101.

Q. Does the Aurora model appropriately reflect the Company's Projected NPC?

A. Yes. The Aurora model reasonably simulates the operation of the Company's system load and resource portfolio, consistent with the Company's system operation constraints and requirements. Any variances from Projected NPC are handled through the ECAC balancing account, where Projected NPC are trued up to Adjusted Actual NPC on a monthly basis.

Q. What is the Projected NPC for 2023?

A. The Company's Projected NPC for calendar year 2023 is $1.752 billion, or approximately $26.7 million on a California-allocated basis. The Company's 2023 NPC study is provided as Exhibit PAC/101 and the California-allocated NPC is provided as Exhibit PAC/104.

Q. In the 2021 ECAC the Company used the Generation and Regulation Initiative Decision Tools (GRID) production cost model. How does the change from GRID to Aurora impact prior Commission directives?

A. Because of limitations in the GRID model, for previous ECAC filings the Company engaged in an iterative process to ensure that the optimal marginal costs used for the dispatch of its coal plants accurately reflected the provisions in the Company's coal supply agreements. In approving the Company's 2020 ECAC, the Commission required additional transparency in the process and directed the Company to produce

the following information for future ECAC applications:

1. information on the marginal fuel cost assumed for each coal plant, the specific coal plants where adjustments were made to align forecasted generation with minimum take provisions, and the magnitude of adjustments made;

2. a GRID model run that depicts the NPC when adjustments are made to the Dispatch Tier meet minimum take provisions;

3. a GRID model run that depicts the NPC when the Dispatch Tier is based purely on marginal costs; and

4. a GRID model run that depicts the NPC when average fuel costs are utilized to forecast unit dispatch.[4]

As a result of the switch from GRID to Aurora in the 2022 ECAC, the Commission subsequently granted the Company's request to waive the second and third requirements, though continued to require the Company to address the first and fourth requirements.[5] Consistent with the ALJ's decision, PacifiCorp updated its 2022 ECAC Application to respond to the remaining Commission requirements.[6] PacifiCorp again responds to these requirements below.

Q. Please provide the information requested in the first requirement.

A. The Aurora model used by the Company in this Application and the 2022 ECAC proceeding provides greater flexibility around the modeling of fuel consumption than the GRID model that the Company formerly used. Aurora can model multiple tiered pricing contracts and volumetric contract provisions, and has neither "dispatch tiers" nor "costing tiers" that the GRID model utilized. Consequently, and as the Company noted in its 2022 Compliance filing, adjustments to marginal fuel cost assumed for

[4] *Id.,* at 16-17.
[5] *In re PacifiCorp's 2022 ECAC,* A.21-08-004, ALJ E-Mail Ruling (Dec. 21, 2021).
[6] *In re PacifiCorp's 2022 ECAC,* A-21-08-004, PacifiCorp (U 901 E) Compliance Filing (Feb. 22, 2022).

each coal plant were not made in the preparation of this ECAC.[7] Information on the marginal fuel cost assumed for each coal plant is provided in supporting workpapers.[8]

Q. Please provide the information requested in the fourth requirement.

A. Regarding the fourth requirement, the Commission stated that "[r]egardless of the model used, PacifiCorp has the burden of demonstrating the prudency of its NPC and forecasted coal plant dispatch compared to alternative resources without predetermined constraints."[9] Because the Company no longer utilizes GRID to calculate NPC for regulatory purposes, the Company provides an Aurora run using average costs to respond to the Commission's fourth requirement. Details for this Aurora run are attached as supporting workpapers.[10]

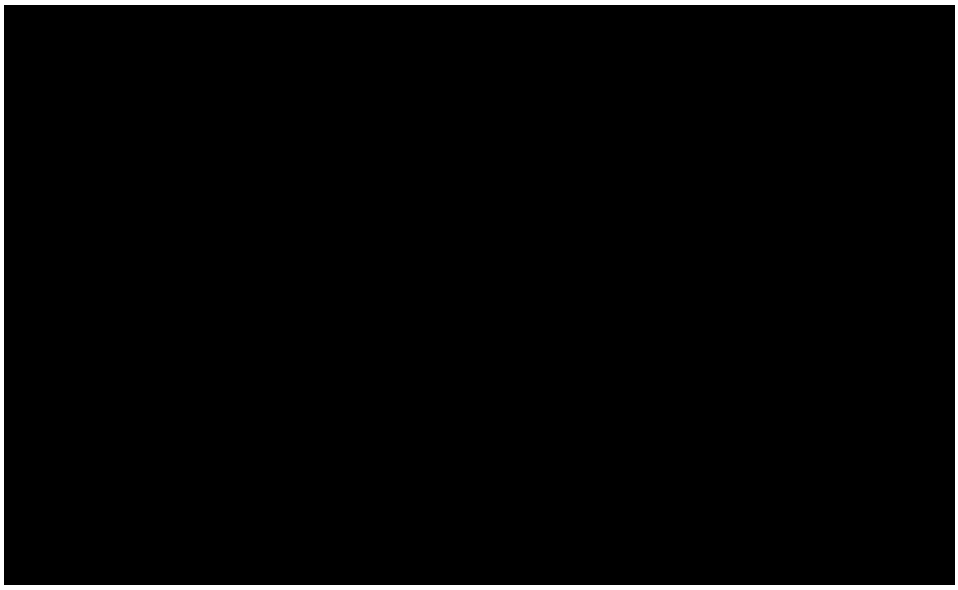
VI. ECAC PROJECTED NPC COMPARISON

Q. Please summarize the major changes in Projected NPC between the 2022 ECAC's projection of calendar year 2022, and this filing's projection of calendar year 2023.

A. Confidential Table 2 below details the differences between the calendar year 2022 Projected NPC from the prior filing, and the calendar year 2023 Projected NPC from this filing in dollars, whereas Confidential Table 3 details the differences in MWh.

[7] *Id.* at 2 ("Adjustments to marginal fuel cost assumed for each coal plant were not made in the preparation of the 2022 ECAC as in prior ECAC applications where GRID was used.").
[8] "Coal Expense Calculations HiCONF" Spreadsheet.
[9] ALJ E-Mail Ruling, at 3.
[10] "ECAC Avg Cost 2023 NPC CONF" Spreadsheet and "Coal Expense Calculations HiCONF" Spreadsheet.

[Begin Confidential]
Confidential Table 2



Confidential Table 3

[End Confidential]

Compared to the total-company Projected NPC in the 2022 ECAC,[11] Projected NPC in this 2023 ECAC are higher by 20.0 percent. There is an increase in

[11] A Commission decision regarding the Company's 2022 ECAC in A.21-08-004 is still pending

forecasted wholesale sales revenue of **[Begin Confidential]** [redacted] **[End Confidential]** (which decreases NPC), the totality of which are offset by an increase in purchased power expense of approximately **[Begin Confidential]** [redacted] **[End Confidential]**. Coal fuel expense and natural gas fuel expense have increased by **[Begin Confidential]** [redacted] and [redacted] **[End Confidential]**, respectively. Finally, wheeling and other expenses have increased by **[Begin Confidential]** [redacted] **[End Confidential]**. The primary drivers of these changes are increased natural gas fuel prices and associated electricity market prices; however, these increases are dampened by relatively unchanged coal fuel prices that result from the Company's coal supply agreements.

These dynamics are reflected in the MWh changes between 2022 and 2023, where natural gas generation decreases as a result of the increased natural gas fuel prices, and coal generation correspondingly increases to provide replacement energy. For the remaining balance, wholesale sales decrease and purchased power increase to accommodate the increase in total-company load and the slight decline in other generation.

These comparisons on a line-by-line basis at the monthly granularity are attached as Exhibit PAC/103 and the prior ECAC's 2022 forecast is attached as Exhibit PAC/102.

Q. What magnitude of price changes drive this increased Projected NPC?

A. In this filing, when compared to the 2022 ECAC, electricity market prices have increased by an annual average of **[Begin Confidential]** [redacted] **[End Confidential]**, Natural gas generation costs have increased by **[Begin Confidential]**

[redacted] **[End Confidential]** while coal generation costs have increased by **[Begin Confidential]** [redacted] **[End Confidential]**.

VII. ENERGY IMBALANCE MARKET

Q. Are the benefits from participating in the EIM with the CAISO included in this ECAC?

A. Yes. Participation in the EIM provides benefits to customers in the form of reduced NPC. At the total-company level, while the 2021 ECAC had forecasted EIM benefits of **[Begin Confidential]** [redacted] **[End Confidential]**, the actual benefits for customers were even greater at **[Begin Confidential]** [redacted] **[End Confidential]**. In this filing, the 2022 forecasted EIM benefits are **[Begin Confidential]** [redacted] **[End Confidential]** and the 2023 forecasted EIM benefits are **[Begin Confidential]** [redacted] **[Begin Confidential]**.

Q. How does the Company calculate its actual EIM benefits?

A. Using actual information from the EIM, including five- and 15-minute pricing, the Company identifies the incremental resource that could have facilitated the transfer to an adjacent EIM area or the CAISO in each five-minute interval. The benefit is then calculated as the difference between the revenue received less the expense of generation assumed to supply the transfer. In the event of an import, the benefit is equal to the cost of the import minus the avoided expense of the generation that would have otherwise been dispatched.

Q. Does this conclude your direct testimony?

A. Yes.

Application No. 22-08-___
Exhibit No. PAC/101
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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Direct Testimony of

Ramon J. Mitchell

Net Power Cost Analysis—Projected 2023 NPC

August 2022

Projected 2023 NPC **Exhibit PAC/101**

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total 2023
						$							
Special Sales For Resale													
Long Term Firm Sales													
Black Hills	$ 554,036	$ 483,922	$ 557,374	$ 511,188	$ 534,560	$ 525,100	$ 570,729	$ 567,391	$ 526,213	$ 525,100	$ 515,084	$ 576,294	$ 6,446,989
Hurricane Sale	536	605	670	648	670	648	670	670	648	670	648	670	7,750
Leaning Juniper Revenue	15,478	14,746	16,009	8,357	9,773	13,111	35,803	35,734	25,487	14,851	12,004	14,235	215,587
PSCO Sale	894,040	824,640	910,380	653,600	677,440	881,920	1,839,220	2,216,455	2,092,288	719,881	700,412	702,586	13,112,861
Total Long Term Firm Sales	$ 1,464,089	$ 1,323,913	$ 1,484,433	$ 1,173,793	$ 1,222,443	$ 1,420,779	$ 2,446,422	$ 2,820,248	$ 2,644,635	$ 1,260,501	$ 1,228,147	$ 1,293,784	$ 19,783,187
Total Short Term Firm Sales	$ 43,407,574	$ 26,870,456	$ 20,808,000	$ 11,751,681	$ 14,220,232	$ 24,540,012	$ 40,430,587	$ 41,662,420	$ 51,233,247	$ 34,442,068	$ 32,199,240	$ 34,706,536	$ 376,272,054
Total Secondary Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Special Sales For Resale	$ 44,871,663	$ 28,194,369	$ 22,292,433	$ 12,925,474	$ 15,442,675	$ 25,960,790	$ 42,877,009	$ 44,482,668	$ 53,877,883	$ 35,702,569	$ 33,427,388	$ 36,000,320	$ 396,055,240
Purchased Power & Net Interchange													
Long Term Firm Purchases													
Cedar Springs Wind	1,348,848	1,095,201	1,032,244	1,016,035	830,825	743,881	742,782	585,990	827,498	1,090,534	1,068,343	1,341,093	11,723,272
Cedar Springs Wind III	1,025,293	832,068	784,236	772,111	631,272	565,348	564,366	445,199	628,829	828,668	811,823	1,018,881	8,908,094
Combine Hills Wind	391,576	474,473	576,362	572,609	490,602	421,752	473,077	398,136	376,057	390,640	479,846	432,646	5,477,775
Cove Mountain Solar	183,848	193,154	336,688	366,527	421,871	453,707	440,109	416,435	357,107	287,471	206,551	169,814	3,833,283
Cove Mountain Solar II	385,462	404,972	705,910	768,471	884,508	951,255	922,745	873,109	748,720	602,719	430,655	354,060	8,032,587
Deseret Purchase	3,117,513	2,988,099	2,988,099	2,765,067	2,789,849	2,627,393	3,142,294	3,142,294	3,109,252	3,142,294	3,074,834	3,114,759	36,001,746
Eagle Mountain - UAMPS/UMPA	-	-	-	-	-	-	-	-	-	-	-	-	-
Gemstate	150,100	150,100	150,100	150,100	150,100	150,100	150,100	150,100	-	-	-	-	1,200,800
Graphite Solar	313,766	355,437	561,331	616,028	690,923	708,977	691,500	646,870	579,734	483,379	357,284	267,268	6,272,497
Horseshoe Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Hunter Solar	371,168	420,781	641,039	669,033	762,896	789,454	750,512	705,507	657,834	561,379	398,161	323,388	7,051,153
Hurricane Purchase	15,936	15,994	16,145	16,128	16,145	16,128	16,145	16,145	16,128	16,145	16,128	16,145	193,311
MagCorp Reserves	320,800	312,800	316,800	324,800	316,800	324,800	328,800	312,800	308,800	296,700	344,900	328,800	3,837,600
Milican Solar	92,708	141,477	216,779	272,858	323,854	352,508	396,975	350,779	282,304	184,848	118,394	81,245	2,814,730
Milford Solar	353,274	406,820	600,085	667,481	784,725	827,371	736,808	709,314	661,660	533,619	388,227	305,919	6,975,304
Monsanto Reserves	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	1,716,700	20,600,400
Nucor	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	7,129,800
Old Mill Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavant III Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
PGE Cove	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	154,785
Prineville Solar	63,645	97,125	144,022	181,280	215,160	234,197	263,740	233,048	187,556	122,808	78,658	53,977	1,875,216
Rock River Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Rocket Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Sigurd Solar	309,554	345,619	509,742	556,548	639,667	703,042	653,634	599,181	559,401	453,931	319,006	267,971	5,917,296
Skysol Solar	-	-	698,731	756,489	964,767	1,278,104	1,603,572	1,541,676	1,061,102	626,170	344,706	317,083	9,192,400
Small Purchases east	1,173	1,213	1,172	1,172	1,233	1,203	1,226	1,202	1,154	1,157	1,209	1,176	14,288
Small Purchases west	-	-	-	-	-	-	-	-	-	-	-	-	-
Soda Lake Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-
Three Buttes Wind	2,790,662	1,806,920	2,135,792	1,616,110	1,427,656	1,205,752	805,618	949,664	1,185,169	1,735,343	2,352,785	2,572,230	20,583,701
Top of the World Wind	5,436,528	3,612,747	4,243,888	3,269,405	2,908,093	2,401,211	1,720,683	1,871,512	2,296,328	3,513,955	4,491,128	4,872,798	40,638,275
Tri-State Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
UT Solar Adjustment	(699,228)	(760,409)	(1,267,242)	(1,384,499)	(1,575,430)	(1,660,232)	(1,614,246)	(1,519,979)	(1,328,454)	(1,086,098)	(787,939)	(621,328)	(14,305,084)
Wolverine Creek Wind	779,175	910,409	1,160,283	1,067,617	806,161	866,062	686,022	652,525	770,670	848,339	986,255	990,276	10,523,795
Long Term Firm Purchases Total	$ 19,075,552	$ 16,128,750	$ 18,875,955	$ 17,365,119	$ 16,805,426	$ 16,285,762	$ 15,800,212	$ 15,405,254	$ 15,610,596	$ 16,957,749	$ 17,804,702	$ 18,531,949	$ 204,647,025

Projected 2023 NPC **Exhibit PAC/101**

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total 2023
						$							
Qualifying Facilities													
QF California	$ 167,498	$ 177,630	$ 211,597	$ 215,520	$ 201,586	$ 163,935	$ 139,039	$ 134,406	$ 127,305	$ 131,831	$ 130,101	$ 149,015	$ 1,949,463
QF Idaho	630,421	621,030	669,633	674,163	700,750	677,814	733,869	667,907	614,562	647,635	656,520	780,122	8,074,427
QF Oregon	2,249,395	2,672,810	3,668,128	4,722,574	5,040,568	5,343,553	5,183,600	4,928,306	4,109,928	3,012,556	2,004,720	1,937,595	44,873,732
QF Utah	852,212	891,894	1,078,846	1,105,629	1,216,055	1,236,570	1,149,183	1,147,019	1,075,785	1,012,884	890,675	808,880	12,465,631
QF Washington	-	-	-	5,120	18,598	51,806	58,266	53,533	25,617	1,742	-	-	214,683
QF Wyoming	8,180	8,841	12,131	6,897	4,745	2,535	9,505	9,015	4,847	6,879	8,471	14,805	96,851
Biomass One QF	1,579,705	1,323,820	1,494,894	1,505,786	1,599,616	799,407	1,524,929	1,573,783	1,537,958	1,563,610	1,583,204	861,970	16,948,683
DCFP QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise Solar I QF	1,336,798	1,266,359	1,350,863	1,377,933	1,641,196	1,694,455	2,033,197	1,983,633	1,536,718	1,294,393	1,319,792	1,189,423	18,024,761
Escalante 1 Solar QF	1,261,552	1,287,541	1,388,400	1,465,328	1,726,643	1,548,752	2,085,695	2,040,619	1,629,794	1,389,426	1,293,403	1,251,163	18,368,316
Escalante 2 Solar QF	1,201,508	1,230,801	1,318,673	1,393,956	1,641,710	1,613,560	1,979,775	1,940,204	1,547,938	1,321,311	1,234,022	1,191,251	17,614,709
Escalante 3 Solar QF	1,211,123	1,201,950	1,281,329	1,359,516	1,604,958	744,974	1,910,217	1,892,248	1,507,540	1,209,970	1,133,123	1,089,601	16,146,548
ExxonMobil QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Five Pine Wind QF	554,862	906,947	816,351	850,866	515,894	584,654	659,194	640,311	808,926	791,265	940,370	949,712	9,019,353
Granite Mountain East Solar QF	1,365,069	1,315,904	1,427,608	1,459,469	1,669,147	1,753,064	2,076,824	1,886,662	1,521,000	1,314,442	1,228,111	1,231,956	18,249,256
Granite Mountain West Solar QF	907,188	872,410	945,744	961,555	1,105,880	1,160,442	1,376,383	1,191,554	1,006,070	611,749	595,023	808,345	11,542,343
Iron Springs QF	1,395,725	1,340,095	1,465,891	1,498,478	1,716,029	1,798,792	2,122,668	2,055,158	1,556,628	1,339,896	947,737	1,229,598	18,466,694
Latigo Wind QF	1,008,380	918,313	1,126,808	899,197	858,863	750,011	679,576	565,615	621,442	804,293	711,357	771,505	9,715,362
Mountain Wind 1 QF	1,401,681	1,040,630	876,976	685,272	485,602	506,501	405,887	436,961	463,524	674,633	897,977	1,008,543	8,884,188
Mountain Wind 2 QF	2,044,719	1,560,214	1,355,844	1,069,021	760,815	916,414	746,259	724,942	768,629	1,011,319	1,395,548	1,493,772	13,847,496
North Point Wind QF	1,165,131	1,954,536	1,818,665	1,911,384	1,153,737	1,323,642	1,536,181	1,586,828	1,921,789	1,839,754	1,998,437	1,964,698	20,174,782
Oregon Wind Farm QF	715,838	958,244	1,111,489	1,297,182	1,260,298	1,223,667	1,244,796	1,111,614	929,186	738,978	795,816	1,000,463	12,387,571
Pavant II Solar QF	558,591	547,864	601,146	653,745	718,608	745,746	954,469	959,358	647,132	546,241	567,874	544,732	8,045,505
Pioneer Wind 1 QF	1,297,050	918,271	1,286,892	1,019,427	683,882	737,428	853,972	823,289	542,193	864,331	1,344,839	1,055,265	11,426,840
Power County North Wind QF	449,376	590,711	568,304	560,359	380,537	383,093	388,127	390,852	408,819	548,386	567,673	662,087	5,898,325
Power County South Wind QF	396,841	520,011	513,090	520,715	327,839	341,698	342,539	363,999	362,093	479,885	512,477	575,010	5,256,198
Roseburg Dillard QF	59,044	130,556	65,605	103,400	129,189	78,072	244,021	185,888	89,387	87,095	110,763	109,665	1,392,686
Sage I Solar QF	79,705	78,928	187,861	203,039	233,053	259,536	331,713	331,792	206,029	153,821	103,600	74,348	2,243,423
Sage II Solar QF	79,789	79,021	188,061	203,258	233,267	259,829	332,067	332,160	206,263	153,978	103,728	74,419	2,245,841
Sage III Solar QF	67,187	65,762	155,157	165,491	191,023	212,279	270,704	270,549	170,042	129,039	87,807	63,160	1,848,201
Spanish Fork Wind 2 QF	224,422	180,687	209,101	164,243	157,003	219,750	296,750	325,778	277,565	246,966	256,226	259,486	2,817,977
Sunnyside QF	2,591,440	2,364,563	2,689,304	2,292,206	2,818,676	3,056,161	3,087,299	3,039,881	-	-	-	-	21,939,530
Sweetwater Solar QF	255,091	368,749	557,947	676,497	804,030	969,793	1,098,050	1,027,809	802,870	618,001	295,309	198,224	7,672,369
Tesoro QF	78,413	58,137	46,539	26,695	37,564	7,070	8,464	30,441	9,687	7,805	18,112	69,929	398,855
Three Peaks Solar QF	1,062,105	1,035,787	1,157,428	1,198,060	1,321,812	1,166,846	1,462,357	1,434,276	1,145,504	1,004,651	987,254	823,708	13,799,788
Threemile Canyon Wind QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah Pavant Solar QF	890,466	757,840	904,296	946,457	1,168,480	1,185,014	1,467,464	1,452,949	1,147,430	1,003,746	906,896	848,120	12,679,158
Utah Red Hills Solar QF	1,247,931	1,346,584	1,535,451	1,595,103	1,897,065	1,812,377	2,396,290	2,340,239	2,241,127	1,445,427	1,463,082	1,205,154	20,525,829
Qualifying Facilities Total	$ 30,394,436	$ 30,593,441	$ 34,086,051	$ 34,793,541	$ 36,024,721	$ 35,329,237	$ 41,189,330	$ 39,879,580	$ 31,571,328	$ 28,007,938	$ 27,090,047	$ 26,295,723	$ 395,255,374
Mid-Columbia Contracts													
Grant - Priest Rapids	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Grant Reasonable	-	-	-	-	-	-	-	-	-	-	-	-	-
Grant Surplus	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	2,320,800
Mid-Columbia Contracts Total	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 193,400	$ 2,320,800
Total Long Term Firm Purchases	$ 49,663,388	$ 46,915,591	$ 53,155,407	$ 52,352,059	$ 53,023,547	$ 51,808,398	$ 57,182,942	$ 55,478,234	$ 47,375,325	$ 45,159,087	$ 45,088,149	$ 45,021,072	$ 602,223,199
Storage & Exchange													
APS Exchange	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Cowlitz Swift	-	-	-	-	-	-	-	-	-	-	-	-	-
PSCo Exchange	-	-	-	-	-	-	-	-	-	-	-	-	-
SCL State Line	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Storage & Exchange	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Short Term Firm Purchases	$ (3,071,048)	$ 2,473,330	$ (3,252)	$ (446,612)	$ 604,471	$ 893,985	$ 104,234,133	$ 110,462,086	$ 57,974,495	$ 18,874,950	$ 17,402,935	$ 36,345,101	$ 345,744,573
Total Secondary Purchases	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Purchased Power & Net Interchange	$ 46,592,341	$ 49,388,921	$ 53,152,155	$ 51,905,447	$ 53,628,018	$ 52,702,384	$ 161,417,075	$ 165,940,320	$ 105,349,819	$ 64,034,037	$ 62,491,083	$ 81,366,173	$ 947,967,772
Wheeling & U. of F. Expense													
Firm Wheeling	$ 13,849,200	$ 13,522,500	$ 15,687,900	$ 14,755,500	$ 13,754,300	$ 15,920,600	$ 18,680,200	$ 16,009,800	$ 16,351,500	$ 14,277,800	$ 12,997,000	$ 14,459,200	$ 180,265,500
Non-Firm Wheeling	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Wheeling & U. of F. Expense	$ 13,849,200	$ 13,522,500	$ 15,687,900	$ 14,755,500	$ 13,754,300	$ 15,920,600	$ 18,680,200	$ 16,009,800	$ 16,351,500	$ 14,277,800	$ 12,997,000	$ 14,459,200	$ 180,265,500

Projected 2023 NPC **Exhibit PAC/101**

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total 2023
	$												
Coal Fuel Burn Expense													
Cholla	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Colstrip	2,174,245	1,975,275	2,182,557	2,094,039	2,139,242	2,122,854	1,499,440	1,744,758	1,507,117	952,391	1,618,458	1,370,987	21,381,364
Craig	2,198,880	1,762,353	1,721,552	1,229,274	2,204,251	2,056,726	1,867,839	2,266,654	2,002,239	1,901,018	1,794,543	1,971,912	22,977,240
Dave Johnston	7,330,301	6,473,077	6,491,171	6,293,945	7,242,468	7,014,623	4,460,424	5,289,664	4,616,880	5,470,458	3,937,004	4,498,033	69,118,049
Hayden	974,623	769,873	832,533	785,884	943,320	856,920	936,398	780,323	1,045,441	723,673	815,013	781,521	10,245,524
Hunter	14,036,511	12,470,441	10,389,517	12,177,205	13,450,947	13,766,915	10,500,347	10,941,232	10,137,195	11,322,124	11,171,034	9,321,892	139,685,359
Huntington	12,457,934	10,811,447	10,961,709	9,584,676	10,501,738	11,217,608	9,845,578	10,145,393	7,779,898	7,471,986	8,816,671	10,593,394	120,188,032
Jim Bridger	14,897,069	14,485,395	13,116,479	8,213,163	10,495,756	12,008,887	23,845,600	25,112,897	21,917,814	18,476,924	20,052,321	21,558,445	204,180,750
Naughton	2,348,994	2,708,260	2,402,087	2,325,465	2,093,803	2,865,732	3,355,263	3,324,569	2,931,311	2,876,373	2,366,896	2,658,442	32,257,195
Wyodak	3,087,006	2,969,574	3,210,712	3,020,770	3,247,307	3,187,568	2,430,085	2,319,353	2,025,733	2,136,222	1,583,973	1,074,764	30,293,067
Total Coal Fuel Burn Expense	$ 59,505,564	$ 54,425,695	$ 51,308,317	$ 45,724,422	$ 52,318,831	$ 55,097,834	$ 58,740,974	$ 61,924,843	$ 53,963,628	$ 51,331,168	$ 52,155,914	$ 53,829,389	$ 650,326,579
Gas Fuel Burn Expense													
Chehalis	$ 15,008,276	$ 5,853,237	$ 4,628,231	$ 925,900	$ 954,700	$ 2,932,550	$ 7,181,013	$ 6,736,006	$ 7,381,445	$ 9,801,770	$ 7,154,205	$ 7,937,506	$ 76,494,841
Currant Creek	6,340,125	3,345,479	6,027,127	6,667,631	4,314,248	6,753,804	7,953,785	6,159,850	5,413,349	6,622,383	8,184,247	6,613,061	74,395,091
Gadsby	1,383,872	913,861	795,770	490,329	620,530	894,587	1,770,489	2,120,023	1,802,051	1,135,862	1,464,253	1,866,262	15,257,890
Gadsby CT	1,038,646	976,256	863,692	314,140	-	582,503	1,211,343	1,325,007	1,073,761	1,120,336	1,161,760	1,234,734	10,902,178
Hermiston	6,363,920	4,833,331	4,148,021	2,868,477	3,305,894	1,951,342	1,533,344	1,392,667	1,581,567	477,967	2,632,903	4,043,147	35,132,580
Lake Side 1	5,121,014	4,028,903	6,137,784	6,309,680	7,239,151	7,141,878	7,551,521	7,662,446	6,537,643	6,446,921	6,630,095	6,187,793	76,994,829
Lake Side 2	5,046,811	3,187,137	4,193,129	1,657,660	716,580	3,846,842	6,557,820	6,683,152	5,649,445	5,435,076	5,615,017	6,823,548	55,412,217
Naughton - Gas	875,497	534,862	764,954	720,508	568,483	980,043	3,065,708	3,165,085	1,726,489	1,778,534	1,971,756	4,620,761	20,772,679
Total Gas Fuel Burn Expense	$ 41,178,162	$ 23,673,066	$ 27,558,708	$ 19,954,326	$ 17,719,586	$ 25,083,551	$ 36,825,023	$ 35,244,236	$ 31,165,749	$ 32,818,849	$ 34,814,236	$ 39,326,813	$ 365,362,304
Other Generation													
Black Cap Solar	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Blundell	461,755	417,069	461,755	387,279	432,185	418,243	381,550	390,298	406,476	346,843	229,062	176,392	4,508,907
Total Other Generation	$ 461,755	$ 417,069	$ 461,755	$ 387,279	$ 432,185	$ 418,243	$ 381,550	$ 390,298	$ 406,476	$ 346,843	$ 229,062	$ 176,392	$ 4,508,907
Net Power Cost	$ 116,715,359	$ 113,232,882	$ 125,876,401	$ 119,801,499	$ 122,410,245	$ 123,261,822	$ 233,167,813	$ 235,026,830	$ 153,359,289	$ 127,106,128	$ 129,259,908	$ 153,157,648	$ 1,752,375,823

Application No. 22-08-___
Exhibit No. PAC/102
Witness: Ramon J. Mitchell

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Direct Testimony of

Ramon J. Mitchell

Net Power Cost Analysis—Prior ECAC's Projected 2022 NPC

August 2022

Prior ECAC's Projected 2022 NPC **Exhibit PAC/102**

	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													
Black Hills	$ 684,840	$ 651,124	$ 715,551	$ 463,545	$ 406,679	$ 605,206	$ 733,040	$ 701,878	$ 674,345	$ 684,072	$ 695,621	$ 734,640	$ 7,750,540
Hurricane Sale	540	540	540	540	540	540	540	540	540	540	540	540	6,475
Leaning Juniper Revenue	8,068	7,601	9,462	4,912	3,927	6,910	17,829	20,473	14,692	8,897	6,870	7,937	117,580
Total Long Term Firm Sales	$ 693,448	$ 659,264	$ 725,552	$ 468,997	$ 411,145	$ 612,656	$ 751,409	$ 722,891	$ 689,576	$ 693,508	$ 703,030	$ 743,117	$ 7,874,595
Total Short Term Firm Sales	$ 34,565,384	$ 21,049,559	$ 25,445,540	$ 14,920,294	$ 14,509,669	$ 20,741,744	$ 31,185,816	$ 36,713,145	$ 33,215,983	$ 25,401,937	$ 20,735,335	$ 17,930,656	$ 296,415,062
Total Secondary Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Special Sales For Resale	$ 35,258,832	$ 21,708,823	$ 26,171,092	$ 15,389,292	$ 14,920,814	$ 21,354,399	$ 31,937,225	$ 37,436,037	$ 33,905,559	$ 26,095,446	$ 21,438,365	$ 18,673,773	$ 304,289,657
Purchased Power & Net Interchange													
Long Term Firm Purchases													
Cedar Springs Wind	692,182	561,346	1,060,660	1,026,445	1,060,660	1,026,445	1,060,660	1,060,660	1,026,445	1,060,660	1,026,445	1,060,660	11,723,272
Cedar Springs Wind III	525,964	426,547	805,958	779,959	805,958	779,959	805,958	805,958	779,959	805,958	779,959	805,958	8,908,094
Combine Hills Wind	382,040	462,911	563,228	559,423	477,324	411,902	459,242	391,371	365,453	382,799	466,477	581,128	5,503,297
Cove Mountain Solar	184,583	193,926	338,034	367,992	423,558	455,521	441,868	418,099	358,534	288,620	207,377	170,493	3,848,605
Cove Mountain Solar II	458,099	481,286	838,933	913,283	1,051,186	1,130,512	1,096,629	1,037,639	889,810	716,297	511,782	420,758	9,546,214
Deseret Purchase	2,840,098	2,915,128	2,727,553	2,521,220	2,533,278	2,590,890	3,059,829	3,059,829	3,027,673	3,012,935	2,698,076	2,901,730	33,888,237
Eagle Mountain - UAMPS/UMPA	176,341	157,638	141,030	-	-	-	-	-	-	-	-	-	475,008
Gemstate	143,152	143,152	143,152	143,152	143,152	143,152	143,152	143,152	143,152	143,152	143,152	143,152	1,717,824
Graphite Solar	315,660	357,582	564,720	619,746	695,093	713,256	695,674	650,775	583,233	486,297	359,441	268,882	6,310,359
Horseshoe Solar	-	-	-	-	-	-	649,761	615,683	512,127	411,472	254,320	201,944	2,645,307
Hunter Solar	373,043	422,907	644,277	672,412	766,749	793,441	754,302	709,070	661,156	564,215	400,171	325,021	7,086,765
Hurricane Purchase	14,960	14,960	14,960	14,960	14,960	14,960	14,960	14,960	14,960	14,960	14,960	14,960	179,516
MagCorp Reserves	372,930	368,920	372,930	376,940	376,940	376,940	372,930	372,930	344,860	364,910	372,930	364,910	4,439,070
Milican Solar	90,121	137,530	210,849	265,395	314,995	342,866	386,117	341,184	274,582	179,792	115,156	79,022	2,737,608
Milford Solar	355,955	409,907	604,638	672,546	790,680	833,649	742,399	714,697	666,681	537,668	391,173	308,226	7,028,220
Monsanto Reserves	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	1,666,667	20,000,000
Nucor	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	594,150	7,129,800
Old Mill Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavant III Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
PGE Cove	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	12,899	154,785
Prineville Solar	61,904	94,469	140,083	176,321	209,274	227,791	256,526	226,673	182,425	119,449	76,506	52,500	1,823,922
Rock River Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Rocket Solar	-	-	-	-	-	-	-	-	-	13,491	255,513	211,145	480,149
Sigurd Solar	311,118	347,365	512,316	559,359	642,898	706,593	656,935	602,207	562,226	456,223	320,617	269,324	5,947,182
Small Purchases east	1,173	1,213	1,172	1,172	1,233	1,203	1,226	1,202	1,153	1,157	1,209	1,176	14,288
Small Purchases west	-	-	-	-	-	-	-	-	-	-	-	-	-
Soda Lake Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-
Three Buttes Wind	2,790,662	1,806,920	2,141,628	1,609,251	1,428,678	1,205,304	804,843	950,802	1,185,464	1,741,196	2,346,698	2,701,069	20,712,516
Top of the World Wind	5,436,528	3,612,747	4,245,733	3,266,227	2,910,525	2,398,843	1,719,857	1,873,298	2,296,246	3,519,349	4,486,125	4,898,057	40,663,534
Tri-State Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
UT Solar Adjustment	(541,029)	(605,122)	(1,169,630)	(1,299,093)	(1,513,549)	(1,550,024)	(2,149,849)	(2,011,881)	(1,693,248)	(1,394,180)	(1,147,788)	(869,353)	(15,944,747)
Wolverine Creek Wind	769,735	899,379	1,146,015	1,054,117	799,585	851,108	677,648	647,369	760,687	840,892	971,473	970,371	10,388,378
Long Term Firm Purchases Total	$ 18,028,933	$ 15,484,424	$ 18,321,953	$ 16,574,542	$ 16,206,893	$ 15,728,025	$ 14,924,382	$ 14,899,393	$ 15,217,295	$ 16,541,026	$ 17,325,488	$ 18,154,849	$ 197,407,203

Prior ECAC's Projected 2022 NPC **Exhibit PAC/102**

	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
						$							
Qualifying Facilities													
QF California	$ 162,633	$ 172,651	$ 205,751	$ 212,594	$ 193,211	$ 159,233	$ 134,854	$ 130,374	$ 123,448	$ 127,844	$ 126,171	$ 146,640	$ 1,895,406
QF Idaho	522,317	485,716	524,279	455,588	489,276	616,519	646,699	575,846	527,267	553,523	526,156	613,053	6,536,240
QF Oregon	2,767,508	2,985,364	3,999,426	5,027,644	5,387,968	5,691,881	5,580,713	5,334,306	4,531,951	3,459,567	2,367,692	2,265,849	49,399,870
QF Utah	848,618	885,366	1,056,273	1,100,403	1,208,104	1,228,948	1,145,332	1,137,818	1,069,438	1,017,171	896,403	815,062	12,408,936
QF Washington	-	-	-	5,769	20,936	50,654	56,972	52,342	25,045	2,284	-	-	214,001
QF Wyoming	10,075	8,452	10,106	6,275	5,030	3,054	8,330	7,517	4,210	5,954	6,819	10,449	86,270
Biomass One QF	1,267,643	1,228,418	1,357,354	1,474,648	963,426	476,188	1,470,267	1,457,176	1,399,895	1,498,754	1,431,020	829,096	14,853,885
DCFP QF	4,070	4,892	3,892	2,838	2,994	5,684	21,446	30,755	28,479	10,800	5,245	5,055	126,149
Enterprise Solar I QF	614,859	748,994	974,310	1,107,272	1,245,638	1,373,505	1,524,913	1,501,220	1,172,076	949,208	700,536	541,066	12,453,598
Escalante 1 Solar QF	562,807	675,596	877,224	1,006,684	1,179,056	1,296,956	1,406,566	1,385,489	1,086,234	867,742	639,811	504,107	11,488,271
Escalante 2 Solar QF	528,800	634,303	826,459	946,736	1,115,939	1,226,322	1,329,310	1,299,965	1,023,737	813,742	598,232	469,523	10,813,068
Escalante 3 Solar QF	515,134	620,061	802,066	921,520	1,088,676	1,197,100	1,293,956	1,264,776	995,093	744,863	548,273	431,094	10,422,610
ExxonMobil QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Five Pine Wind QF	533,030	876,180	791,676	830,464	507,541	559,614	664,263	614,829	777,853	769,372	905,957	907,876	8,738,655
Granite Mountain East Solar QF	546,621	611,857	890,164	982,955	1,148,321	1,250,346	1,322,763	1,258,482	971,017	804,688	577,589	463,868	10,828,670
Granite Mountain West Solar QF	361,832	405,541	590,326	651,030	760,411	827,011	874,938	831,680	642,114	531,914	381,550	306,628	7,164,975
Iron Springs QF	632,002	658,831	891,849	1,009,544	1,120,621	1,275,729	1,327,770	1,315,306	997,925	810,834	574,379	495,857	11,110,648
Latigo Wind QF	1,001,227	919,869	1,128,019	887,991	857,816	756,256	653,785	563,309	626,185	797,001	715,569	745,340	9,652,364
Mountain Wind 1 QF	1,397,906	1,038,926	881,867	687,035	478,109	504,295	417,864	425,509	469,765	681,945	912,095	1,078,321	8,973,637
Mountain Wind 2 QF	2,038,828	1,557,980	1,360,788	1,070,765	748,092	910,931	781,932	700,590	777,806	1,020,860	1,413,964	1,602,980	13,985,518
North Point Wind QF	1,119,374	1,887,863	1,762,544	1,863,861	1,131,008	1,268,824	1,538,820	1,523,257	1,848,717	1,787,346	1,924,728	1,878,455	19,534,795
Oregon Wind Farm QF	721,493	964,976	1,121,079	1,303,960	1,245,235	1,245,980	1,240,389	1,116,721	925,235	731,668	795,437	1,020,460	12,432,632
Pavant II Solar QF	201,314	255,660	379,339	434,447	514,699	570,761	649,719	654,766	487,627	364,198	240,997	196,180	4,949,705
Pioneer Wind 1 QF	1,307,719	925,080	1,302,648	1,021,708	676,800	737,081	856,229	825,193	541,890	866,588	1,349,151	1,085,602	11,495,689
Power County North Wind QF	431,502	570,443	549,212	536,482	373,560	365,543	386,891	379,427	392,483	533,545	543,645	627,035	5,689,769
Power County South Wind QF	381,111	502,335	496,004	498,085	323,108	325,843	342,613	353,598	347,429	467,178	490,511	543,731	5,071,546
Roseburg Dillard QF	44,544	51,457	27,164	104,964	107,166	90,090	245,085	171,264	73,254	75,375	76,026	64,172	1,130,561
Sage I Solar QF	80,192	79,413	189,005	204,759	233,577	261,123	333,738	333,817	207,287	154,769	104,237	74,940	2,256,858
Sage II Solar QF	80,277	79,507	189,206	204,979	233,789	261,418	334,094	334,188	207,523	154,927	104,366	75,010	2,259,284
Sage III Solar QF	67,598	66,161	156,107	166,890	191,458	213,576	272,357	272,200	171,079	129,834	88,345	63,665	1,859,270
Spanish Fork Wind 2 QF	222,450	179,011	207,228	163,645	154,892	217,017	287,456	318,786	275,436	245,056	255,132	261,068	2,787,179
Sunnyside QF	2,381,788	2,222,745	2,546,914	2,217,306	2,795,181	2,803,574	3,015,993	3,003,249	2,782,074	2,472,647	2,766,511	2,567,891	31,575,874
Sweetwater Solar QF	257,166	371,747	562,484	683,975	807,848	977,679	1,106,980	1,036,167	809,399	623,027	297,691	200,503	7,734,666
Tesoro QF	55,044	40,823	32,699	22,874	32,507	8,826	12,237	21,352	10,912	9,331	12,344	56,885	315,834
Three Peaks Solar QF	412,887	472,797	625,440	830,253	853,852	908,370	1,029,086	1,000,023	790,900	669,141	442,886	370,096	8,405,732
Threemile Canyon Wind QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah Pavant Solar QF	241,761	277,105	474,572	555,307	656,455	732,080	849,723	809,453	675,540	507,862	322,448	266,427	6,368,732
Utah Red Hills Solar QF	484,702	615,593	784,787	1,023,184	1,185,775	1,224,261	1,478,356	1,442,811	1,301,276	803,875	586,211	461,634	11,392,463
Qualifying Facilities Total	$ 22,806,832	$ 24,081,715	$ 28,578,260	$ 30,224,434	$ 30,038,075	$ 31,622,272	$ 34,642,439	$ 33,483,558	$ 29,097,599	$ 26,064,433	$ 23,728,127	$ 22,045,618	$ 336,413,361
Mid-Columbia Contracts													
Grant - Priest Rapids	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 184,760	$ 2,217,125
Grant Reasonable	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(79,720)	(956,639)
Grant Surplus	-	-	-	-	-	-	-	-	-	-	-	-	-
Mid-Columbia Contracts Total	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 105,040	$ 1,260,486
Total Long Term Firm Purchases	$ 40,940,806	$ 39,671,179	$ 47,005,253	$ 46,904,016	$ 46,350,008	$ 47,455,337	$ 49,671,861	$ 48,487,991	$ 44,419,934	$ 42,710,499	$ 41,158,656	$ 40,305,508	$ 535,081,050
Storage & Exchange													
APS Exchange	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Cowlitz Swift	-	-	-	-	-	-	-	-	-	-	-	-	-
PSCo Exchange	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	-	-	4,500,000
SCL State Line	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Storage & Exchange	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ 450,000	$ -	$ -	$ 4,500,000
Total Short Term Firm Purchases	$ 14,207,168	$ 11,297,536	$ 15,244,811	$ 1,475,235	$ 11,367,923	$ 18,258,063	$ 40,294,181	$ 40,527,382	$ 20,075,416	$ 11,110,339	$ 10,435,965	$ 17,472,291	$ 211,766,311
Total Secondary Purchases													-
Total Purchased Power & Net Interchange	$ 55,597,974	$ 51,418,716	$ 62,700,064	$ 48,829,251	$ 58,167,932	$ 66,163,400	$ 90,416,042	$ 89,465,374	$ 64,945,351	$ 54,270,839	$ 51,594,620	$ 57,777,799	$ 751,347,361
Wheeling & U. of F. Expense													
Firm Wheeling	$ 13,473,441	$ 13,255,570	$ 13,526,678	$ 13,310,416	$ 12,006,585	$ 12,843,394	$ 13,470,943	$ 13,547,418	$ 12,562,964	$ 13,005,692	$ 12,789,218	$ 13,456,061	$ 157,248,382
Non-Firm Wheeling	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Wheeling & U. of F. Expense	$ 13,473,441	$ 13,255,570	$ 13,526,678	$ 13,310,416	$ 12,006,585	$ 12,843,394	$ 13,470,943	$ 13,547,418	$ 12,562,964	$ 13,005,692	$ 12,789,218	$ 13,456,061	$ 157,248,382

Prior ECAC's Projected 2022 NPC **Exhibit PAC/102**

	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	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Colstrip	1,924,390	1,737,016	1,898,331	1,745,153	1,256,369	1,270,072	1,450,999	1,585,851	1,418,210	909,088	1,000,147	1,325,256	17,520,880
Craig	1,972,429	1,681,651	1,791,507	1,426,816	787,302	946,517	1,211,393	1,708,632	1,680,151	1,510,473	951,764	954,090	16,622,724
Dave Johnston	6,244,227	5,800,913	5,313,272	5,925,294	4,957,026	3,445,268	3,543,208	4,341,367	3,973,537	4,115,342	3,516,487	4,177,866	55,353,808
Hayden	1,146,680	982,155	1,018,610	891,926	1,186,879	1,216,940	1,197,792	1,014,662	734,955	1,054,744	897,664	840,460	12,183,468
Hunter	14,242,390	11,604,768	10,818,857	4,956,263	7,651,749	7,783,418	9,900,506	10,134,903	10,053,593	9,874,554	10,775,437	10,916,671	118,713,109
Huntington	12,464,096	9,832,927	9,396,515	6,169,200	5,006,439	7,028,722	9,928,233	9,608,512	8,201,702	7,531,738	8,617,774	10,718,723	104,504,580
Jim Bridger	12,782,905	13,790,009	12,829,590	11,034,165	11,481,792	15,665,919	21,327,116	21,244,615	18,003,961	18,310,193	17,985,605	18,160,501	192,616,372
Naughton	3,045,518	2,284,803	2,237,301	1,604,055	1,426,768	1,716,995	2,977,599	2,909,323	2,624,272	2,490,899	2,278,064	2,698,147	28,293,745
Wyodak	2,397,595	2,386,654	2,559,800	2,536,406	2,674,092	1,971,847	2,525,610	2,445,262	2,230,813	2,196,131	1,532,725	1,245,325	26,702,259
Total Coal Fuel Burn Expense	$ 56,220,230	$ 50,100,897	$ 47,863,782	$ 36,289,277	$ 36,428,416	$ 41,045,699	$ 54,062,455	$ 54,993,127	$ 48,921,193	$ 47,993,161	$ 47,555,668	$ 51,037,040	$ 572,510,944
Gas Fuel Burn Expense													
Chehalis	$ 7,359,642	$ 3,071,017	$ 1,101,710	$ 5,194,097	$ 3,104,944	$ 2,546,232	$ 4,771,113	$ 4,410,756	$ 4,690,778	$ 5,910,531	$ 4,939,573	$ 5,511,283	$ 52,611,675
Currant Creek	6,157,677	6,566,264	1,015,992	4,113,328	3,734,811	5,150,549	6,328,128	4,466,604	4,254,643	5,107,662	6,643,809	4,823,419	58,362,884
Gadsby	585,035	428,919	289,139	226,962	267,842	580,086	1,031,781	1,205,189	972,013	651,814	639,440	1,127,529	8,005,750
Gadsby CT	356,442	154,349	56,442	61,267	57,145	392,515	767,272	784,064	656,618	627,937	521,091	931,665	5,366,805
Hermiston	4,113,470	3,166,919	3,216,589	2,022,663	1,170,034	636,465	2,368,690	2,097,008	2,269,290	1,621,185	1,959,535	2,411,073	27,052,921
Lake Side 1	6,211,054	4,970,208	6,815,801	5,913,363	3,909,059	4,159,110	6,929,215	7,004,352	6,013,533	6,260,860	6,186,220	5,295,775	69,668,552
Lake Side 2	4,388,985	2,678,923	1,460,995	1,114,459	2,053,428	3,444,266	4,179,974	4,333,825	3,930,813	4,326,560	4,289,185	5,419,826	41,621,239
Naughton - Gas	886,268	780,359	243,996	282,817	590,074	916,175	2,192,451	2,140,542	1,325,374	1,556,842	1,104,889	2,744,006	14,763,793
Total Gas Fuel Burn Expense	$ 30,058,572	$ 21,816,958	$ 14,200,664	$ 18,928,956	$ 14,887,337	$ 17,825,397	$ 28,568,623	$ 26,442,340	$ 24,113,062	$ 26,063,392	$ 26,283,742	$ 28,264,575	$ 277,453,618
Other Generation													
Black Cap Solar	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Blundell	666,076	601,617	601,617	603,311	614,861	579,403	554,672	576,700	589,628	585,218	338,058	374,256	6,685,418
Total Other Generation	$ 666,076	$ 601,617	$ 601,617	$ 603,311	$ 614,861	$ 579,403	$ 554,672	$ 576,700	$ 589,628	$ 585,218	$ 338,058	$ 374,256	$ 6,685,418
Net Power Cost	$ 120,757,460	$ 115,484,935	$ 112,721,712	$ 102,571,919	$ 107,184,318	$ 117,102,895	$ 155,135,510	$ 147,588,923	$ 117,226,638	$ 115,822,856	$ 117,122,942	$ 132,235,958	$ 1,460,956,065

Application No. 22-08-___
Exhibit No. PAC/103
Witness: Ramon J. Mitchell

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

PACIFICORP

REDACTED

Exhibit Accompanying Direct Testimony of

Ramon J. Mitchell

Net Power Cost Analysis—Projected NPC Comparison to Prior ECAC

August 2022

Confidential Exhibit PAC/103
PacifiCorp
Projected NPC Comparison to Prior ECAC

Coinfidential Exhibit PAC/103

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							
Special Sales For Resale													
Long Term Firm Sales													
Black Hills	$ (130,804)	$ (167,202)	$ (158,177)	$ 47,643	$ 127,881	$ (80,106)	$ (162,311)	$ (134,488)	$ (148,132)	$ (158,972)	$ (180,537)	$ (158,346)	$ (1,303,551)
Hurricane Sale	(4)	65	130	108	130	108	130	130	108	130	108	130	1,275
Leaning Juniper Revenue	7,410	7,145	6,547	3,444	5,846	6,200	17,974	15,260	10,794	5,954	5,134	6,298	98,006
PSCo Sale	894,040	824,640	910,380	653,600	677,440	881,920	1,839,220	2,216,455	2,092,288	719,881	700,412	702,586	13,112,861
Total Long Term Firm Sales	$ 770,641	$ 664,649	$ 758,881	$ 704,795	$ 811,297	$ 808,123	$ 1,695,013	$ 2,097,357	$ 1,955,059	$ 566,993	$ 525,117	$ 550,667	$ 11,908,592
Total Short Term Firm Sales	$ 8,842,189	$ 5,820,897	$ (4,637,540)	$ (3,168,613)	$ (289,437)	$ 3,798,268	$ 9,244,772	$ 4,949,274	$ 18,017,265	$ 9,040,130	$ 11,463,906	$ 16,775,879	$ 79,856,992
Total Secondary Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Special Sales For Resale	$ 9,612,831	$ 6,485,546	$ (3,878,659)	$ (2,463,817)	$ 521,861	$ 4,606,391	$ 10,939,785	$ 7,046,631	$ 19,972,324	$ 9,607,124	$ 11,989,023	$ 17,326,547	$ 91,765,583
Purchased Power & Net Interchange													
Long Term Firm Purchases													
Cedar Springs Wind	$ 656,666	$ 533,855	$ (28,417)	$ (10,411)	$ (229,835)	$ (282,565)	$ (317,878)	$ (474,671)	$ (198,948)	$ 29,874	$ 41,897	$ 280,432	$ (0)
Cedar Springs Wind III	499,329	405,521	(21,722)	(7,848)	(174,686)	(214,612)	(241,592)	(360,758)	(151,130)	22,711	31,864	212,923	(0)
Combine Hills Wind	9,536	11,561	13,134	13,187	13,278	9,850	13,835	6,764	10,603	7,841	13,370	(148,482)	(25,522)
Cove Mountain Solar	(735)	(772)	(1,346)	(1,465)	(1,686)	(1,814)	(1,759)	(1,665)	(1,427)	(1,149)	(826)	(679)	(15,322)
Cove Mountain Solar II	(72,637)	(76,314)	(133,023)	(144,812)	(166,678)	(179,256)	(173,884)	(164,530)	(141,090)	(113,577)	(81,127)	(66,698)	(1,513,627)
Deseret Purchase	277,415	72,971	260,547	243,848	256,571	36,503	82,465	82,465	81,579	129,359	376,757	213,030	2,113,509
Eagle Mountain - UAMPS/UMPA	(176,341)	(157,638)	(141,030)	-	-	-	-	-	-	-	-	-	(475,008)
Gemstate	6,948	6,948	6,948	6,948	6,948	6,948	6,948	6,948	(143,152)	(143,152)	(143,152)	(143,152)	(517,024)
Graphite Solar	(1,894)	(2,145)	(3,388)	(3,718)	(4,171)	(4,280)	(4,174)	(3,905)	(3,499)	(2,918)	(2,157)	(1,613)	(37,862)
Horseshoe Solar	-	-	-	-	-	-	(649,761)	(615,683)	(512,127)	(411,472)	(254,320)	(201,944)	(2,645,307)
Hunter Solar	(1,875)	(2,125)	(3,238)	(3,379)	(3,853)	(3,987)	(3,790)	(3,563)	(3,322)	(2,835)	(2,011)	(1,633)	(35,612)
Hurricane Purchase	977	1,034	1,185	1,168	1,185	1,168	1,185	1,185	1,168	1,185	1,168	1,185	13,794
MagCorp Reserves	(52,130)	(56,120)	(56,130)	(52,140)	(60,140)	(52,140)	(44,130)	(60,130)	(36,060)	(68,210)	(28,030)	(36,110)	(601,470)
Milican Solar	2,587	3,948	5,930	7,464	8,859	9,642	10,859	9,595	7,722	5,056	3,239	2,222	77,122
Milford Solar	(2,681)	(3,087)	(4,554)	(5,065)	(5,955)	(6,278)	(5,591)	(5,382)	(5,021)	(4,049)	(2,946)	(2,307)	(52,916)
Monsanto Reserves	50,033	50,033	50,033	50,033	50,033	50,033	50,033	50,033	50,033	50,033	50,033	50,033	600,400
Nucor	-	-	-	-	-	-	-	-	-	-	-	-	-
Old Mill Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavant III Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
PGE Cove	-	-	-	-	-	-	-	-	-	-	-	-	-
Prineville Solar	1,741	2,657	3,940	4,959	5,885	6,406	7,214	6,375	5,130	3,359	2,152	1,476	51,294
Rock River Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Rocket Solar	-	-	-	-	-	-	-	-	-	(13,491)	(255,513)	(211,145)	(480,149)
Sigurd Solar	(1,563)	(1,746)	(2,574)	(2,811)	(3,231)	(3,551)	(3,301)	(3,026)	(2,825)	(2,293)	(1,611)	(1,353)	(29,885)
Skysol Solar	-	-	698,731	756,489	964,767	1,278,104	1,603,572	1,541,676	1,061,102	626,170	344,706	317,083	9,192,400
Small Purchases east	(0)	0	(0)	0	0	0	(0)	0	0	(0)	0	(0)	0
Small Purchases west	-	-	-	-	-	-	-	-	-	-	-	-	-
Soda Lake Geothermal	-	-	-	-	-	-	-	-	-	-	-	-	-
Three Buttes Wind	-	-	(5,836)	6,858	(1,022)	448	775	(1,138)	(294)	(5,854)	6,087	(128,839)	(128,815)
Top of the World Wind	-	-	(1,845)	3,178	(2,432)	2,368	826	(1,787)	82	(5,394)	5,003	(25,258)	(25,259)
Tri-State Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
UT Solar Adjustment	(158,199)	(155,286)	(97,611)	(85,406)	(61,881)	(110,208)	535,603	491,902	364,795	308,082	359,848	248,024	1,639,663
Wolverine Creek Wind	9,441	11,031	14,269	13,500	6,576	14,954	8,374	5,156	9,983	7,447	14,782	19,905	135,417
Long Term Firm Purchases Total	$ 1,046,619	$ 644,326	$ 554,003	$ 790,577	$ 598,533	$ 557,737	$ 875,830	$ 505,862	$ 393,301	$ 416,723	$ 479,214	$ 377,100	$ 7,239,823

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Witness: Ramon J. Mitchell

Projected NPC Comparison to Prior ECAC **Coinfidential Exhibit PAC/103**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							
Qualifying Facilities													
QF California	$ 4,865	$ 4,979	$ 5,845	$ 2,926	$ 8,375	$ 4,702	$ 4,184	$ 4,032	$ 3,857	$ 3,987	$ 3,930	$ 2,375	$ 54,057
QF Idaho	108,104	135,314	145,354	218,575	211,474	61,294	87,170	92,062	87,295	94,112	130,364	167,069	1,538,187
QF Oregon	(518,113)	(312,554)	(331,298)	(305,070)	(347,400)	(348,328)	(397,114)	(406,000)	(422,023)	(447,011)	(362,972)	(328,255)	(4,526,138)
QF Utah	3,595	6,528	22,573	5,226	7,950	7,622	3,851	9,201	6,347	(4,287)	(5,728)	(6,182)	56,695
QF Washington	-	-	-	(649)	(2,338)	1,153	1,294	1,191	572	(541)	-	-	682
QF Wyoming	(1,894)	389	2,025	622	(285)	(519)	1,175	1,497	636	925	1,652	4,356	10,580
Biomass One QF	312,061	95,402	137,541	31,138	636,191	323,218	54,662	116,607	138,064	64,856	152,183	32,874	2,094,798
DCFP QF	(4,070)	(4,892)	(3,892)	(2,838)	(2,994)	(5,684)	(21,446)	(30,755)	(28,479)	(10,800)	(5,245)	(5,055)	(126,149)
Enterprise Solar I QF	721,939	517,365	376,553	270,661	395,558	320,950	508,284	482,412	364,642	345,185	619,256	648,358	5,571,163
Escalante 1 Solar QF	698,745	611,945	511,176	458,643	547,587	251,797	679,129	655,130	543,561	521,684	653,593	747,056	6,880,046
Escalante 2 Solar QF	672,707	596,498	492,214	447,220	525,771	387,238	650,465	640,239	524,200	507,569	635,790	721,728	6,801,641
Escalante 3 Solar QF	695,989	581,889	479,263	437,996	516,282	(452,126)	616,261	627,473	512,446	465,107	584,850	658,507	5,723,938
ExxonMobil QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Five Pine Wind QF	21,832	30,767	24,675	20,403	8,353	25,040	(5,069)	25,483	31,073	21,894	34,413	41,835	280,697
Granite Mountain East Solar QF	818,448	704,047	537,444	476,514	520,826	502,718	754,061	628,181	549,984	509,754	650,523	768,088	7,420,586
Granite Mountain West Solar QF	545,356	466,869	355,417	310,525	345,470	333,431	501,445	359,874	363,956	79,835	213,473	501,717	4,377,368
Iron Springs QF	763,723	681,264	574,041	488,933	595,408	523,063	794,899	739,851	558,703	529,061	373,358	733,741	7,356,046
Latigo Wind QF	7,154	(1,556)	(1,210)	11,206	1,048	(6,245)	25,791	2,307	(4,742)	7,291	(4,212)	26,165	62,998
Mountain Wind 1 QF	3,775	1,703	(4,890)	(1,763)	7,494	2,206	(11,977)	11,453	(6,241)	(7,312)	(14,118)	(69,778)	(89,449)
Mountain Wind 2 QF	5,890	2,234	(4,944)	(1,743)	12,723	5,483	(35,673)	24,351	(9,177)	(9,542)	(18,416)	(109,208)	(138,021)
North Point Wind QF	45,757	66,673	56,121	47,523	22,729	54,818	(2,639)	63,571	73,072	52,408	73,709	86,243	639,986
Oregon Wind Farm QF	(5,654)	(6,732)	(9,590)	(6,778)	15,063	(22,314)	4,406	(5,107)	3,951	7,310	379	(19,996)	(45,062)
Pavant II Solar QF	357,277	292,204	221,807	219,298	203,909	174,985	304,750	304,593	159,505	182,043	326,877	348,552	3,095,800
Pioneer Wind 1 QF	(10,669)	(6,808)	(15,756)	(2,281)	7,081	347	(2,257)	(1,904)	303	(2,257)	(4,312)	(30,337)	(68,849)
Power County North Wind QF	17,874	20,268	19,092	23,877	6,977	17,550	1,236	11,425	16,336	14,840	24,028	35,052	208,556
Power County South Wind QF	15,730	17,676	17,086	22,630	4,731	15,854	(74)	10,402	14,664	12,707	21,966	31,279	184,651
Roseburg Dillard QF	14,500	79,099	38,441	(1,564)	22,023	(12,018)	(1,063)	14,623	16,133	11,720	34,737	45,493	262,126
Sage I Solar QF	(488)	(485)	(1,143)	(1,721)	(524)	(1,587)	(2,025)	(2,025)	(1,258)	(948)	(637)	(592)	(13,435)
Sage II Solar QF	(488)	(486)	(1,145)	(1,720)	(522)	(1,589)	(2,027)	(2,027)	(1,260)	(949)	(638)	(592)	(13,443)
Sage III Solar QF	(411)	(400)	(950)	(1,399)	(435)	(1,297)	(1,653)	(1,651)	(1,037)	(794)	(538)	(505)	(11,069)
Spanish Fork Wind 2 QF	1,971	1,676	1,873	599	2,111	2,732	9,293	6,992	2,130	1,910	1,094	(1,582)	30,799
Sunnyside QF	209,653	141,818	142,390	74,900	23,495	252,587	71,306	36,632	(2,782,074)	(2,472,647)	(2,766,511)	(2,567,891)	(9,636,343)
Sweetwater Solar QF	(2,074)	(2,999)	(4,537)	(7,477)	(3,818)	(7,887)	(8,930)	(8,358)	(6,529)	(5,026)	(2,382)	(2,280)	(62,297)
Tesoro QF	23,369	17,314	13,840	3,821	5,057	(1,756)	(3,773)	9,089	(1,225)	(1,526)	5,767	13,044	83,021
Three Peaks Solar QF	649,219	562,990	531,988	367,807	467,960	258,476	433,270	434,253	354,604	335,510	544,368	453,612	5,394,056
Threemile Canyon Wind QF	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah Pavant Solar QF	648,705	480,736	429,724	391,150	512,025	452,934	617,741	643,496	471,890	495,884	584,447	581,692	6,310,425
Utah Red Hills Solar QF	763,229	730,991	750,664	571,919	711,290	588,116	917,934	897,428	939,851	641,552	876,871	743,519	9,133,366
Qualifying Facilities Total	$ 7,587,604	$ 6,511,727	$ 5,507,791	$ 4,569,107	$ 5,986,646	$ 3,706,965	$ 6,546,891	$ 6,396,022	$ 2,473,730	$ 1,943,505	$ 3,361,920	$ 4,250,104	$ 58,842,012
Mid-Columbia Contracts													
Grant - Priest Rapids	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (184,760)	$ (2,217,125)
Grant Reasonable	79,720	79,720	79,720	79,720	79,720	79,720	79,720	79,720	79,720	79,720	79,720	79,720	956,639
Grant Surplus	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	193,400	2,320,800
Mid-Columbia Contracts Total	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 88,360	$ 1,060,314
Total Long Term Firm Purchases	$ 8,722,582	$ 7,244,412	$ 6,150,154	$ 5,448,043	$ 6,673,539	$ 4,353,061	$ 7,511,080	$ 6,990,243	$ 2,955,390	$ 2,448,588	$ 3,929,493	$ 4,715,564	$ 67,142,149
Storage & Exchange													
APS Exchange	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Cowlitz Swift	-	-	-	-	-	-	-	-	-	-	-	-	-
PSCo Exchange	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)	-	-	(4,500,000)
SCL State Line	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Storage & Exchange	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ (450,000)	$ -	$ -	$ (4,500,000)
Total Short Term Firm Purchases	$ (17,278,215)	$ (8,824,207)	$ (15,248,063)	$ (1,921,848)	$ (10,763,452)	$ (17,364,078)	$ 63,939,953	$ 69,934,704	$ 37,899,079	$ 7,764,610	$ 6,966,970	$ 18,872,810	$ 133,978,262
Total Secondary Purchases	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Purchased Power & Net Interchange	$ (9,005,633)	$ (2,029,795)	$ (9,547,909)	$ 3,076,196	$ (4,539,914)	$ (13,461,017)	$ 71,001,033	$ 76,474,947	$ 40,404,469	$ 9,763,198	$ 10,896,463	$ 23,588,374	$ 196,620,411
Wheeling & U. of F. Expense													
Firm Wheeling	$ 375,759	$ 266,930	$ 2,161,222	$ 1,445,084	$ 1,747,715	$ 3,077,206	$ 5,209,257	$ 2,462,382	$ 3,788,536	$ 1,272,108	$ 207,782	$ 1,003,139	$ 23,017,118
Non-Firm Wheeling	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Wheeling & U. of F. Expense	$ 375,759	$ 266,930	$ 2,161,222	$ 1,445,084	$ 1,747,715	$ 3,077,206	$ 5,209,257	$ 2,462,382	$ 3,788,536	$ 1,272,108	$ 207,782	$ 1,003,139	$ 23,017,118

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Projected NPC Comparison to Prior ECAC **Coinfidential Exhibit PAC/103**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							
Coal Fuel Burn Expense													
Cholla	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Colstrip	249,855	238,259	284,226	348,887	882,873	852,782	48,442	158,907	88,908	43,303	618,312	45,731	3,860,484
Craig	226,451	80,702	(69,955)	(197,542)	1,416,949	1,110,209	656,446	558,022	322,088	390,545	842,779	1,017,822	6,354,516
Dave Johnston	1,086,075	672,164	1,177,899	368,651	2,285,442	3,569,355	917,216	948,297	643,343	1,355,115	420,516	320,166	13,764,240
Hayden	(172,057)	(212,282)	(186,077)	(106,042)	(243,559)	(360,020)	(261,393)	(234,338)	310,486	(331,071)	(82,651)	(58,939)	(1,937,944)
Hunter	(205,880)	865,673	(429,340)	7,220,942	5,799,198	5,983,497	599,841	806,329	83,602	1,447,570	395,597	(1,594,779)	20,972,251
Huntington	(6,162)	978,520	1,565,195	3,415,476	5,495,299	4,188,886	(82,655)	536,881	(421,804)	(59,752)	198,898	(125,329)	15,683,452
Jim Bridger	2,114,164	695,386	286,890	(2,821,002)	(986,037)	(3,657,032)	2,518,484	3,868,281	3,913,854	166,731	2,066,716	3,397,944	11,564,378
Naughton	(696,523)	423,456	164,785	721,410	667,034	1,148,736	377,665	415,246	307,039	385,474	88,831	(39,705)	3,963,450
Wyodak	689,411	582,920	650,913	484,365	573,214	1,215,721	(95,525)	(125,909)	(205,080)	(59,909)	51,248	(170,561)	3,590,807
Total Coal Fuel Burn Expense	$ 3,285,334	$ 4,324,798	$ 3,444,535	$ 9,435,146	$ 15,890,414	$ 14,052,136	$ 4,678,520	$ 6,931,716	$ 5,042,435	$ 3,338,007	$ 4,600,245	$ 2,792,350	$ 77,815,635
Gas Fuel Burn Expense													
Chehalis	$ 7,648,634	$ 2,782,220	$ 3,526,521	$ (4,268,197)	$ (2,150,244)	$ 386,319	$ 2,409,900	$ 2,325,250	$ 2,690,666	$ 3,891,240	$ 2,214,633	$ 2,426,224	$ 23,883,166
Currant Creek	182,449	(3,220,784)	5,011,135	2,554,303	579,437	1,603,255	1,625,658	1,693,247	1,158,707	1,514,721	1,540,439	1,789,643	16,032,207
Gadsby	798,837	484,942	506,631	263,367	352,687	314,501	738,709	914,834	830,038	484,048	824,813	738,734	7,252,140
Gadsby CT	682,205	821,908	807,250	252,873	(57,145)	189,989	444,071	540,943	417,142	492,399	640,669	303,069	5,535,373
Hermiston	2,250,450	1,666,412	931,432	845,815	2,135,860	1,314,878	(835,346)	(704,341)	(687,723)	(1,143,219)	673,368	1,632,074	8,079,659
Lake Side 1	(1,090,039)	(941,306)	(678,017)	396,317	3,330,092	2,982,768	622,306	658,094	524,110	186,061	443,875	892,017	7,326,278
Lake Side 2	657,826	508,213	2,732,135	543,200	(1,336,847)	402,576	2,377,846	2,349,326	1,718,633	1,108,516	1,325,832	1,403,722	13,790,978
Naughton - Gas	(10,770)	(245,497)	520,958	437,691	(21,592)	63,869	873,256	1,024,542	401,115	221,692	866,866	1,876,755	6,008,886
Total Gas Fuel Burn Expense	$ 11,119,591	$ 1,856,108	$ 13,358,044	$ 1,025,370	$ 2,832,249	$ 7,258,153	$ 8,256,400	$ 8,801,896	$ 7,052,687	$ 6,755,458	$ 8,530,494	$ 11,062,238	$ 87,908,686
Other Generation													
Black Cap Solar	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Blundell	(204,321)	(184,548)	(139,862)	(216,032)	(182,676)	(161,160)	(173,122)	(186,402)	(183,152)	(238,375)	(108,996)	(197,864)	(2,176,510)
Total Other Generation	$ (204,321)	$ (184,548)	$ (139,862)	$ (216,032)	$ (182,676)	$ (161,160)	$ (173,122)	$ (186,402)	$ (183,152)	$ (238,375)	$ (108,996)	$ (197,864)	$ (2,176,510)
Net Power Cost	$ (4,042,101)	$ (2,252,053)	$ 13,154,689	$ 17,229,580	$ 15,225,927	$ 6,158,927	$ 78,032,303	$ 87,437,907	$ 36,132,651	$ 11,283,271	$ 12,136,966	$ 20,921,690	$ 291,419,758

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Confidential Document Subject to
PU Code Section 583 and General Order 66-D
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Witness: Ramon J. Mitchell

Projected NPC Comparison to Prior ECAC

Coinfidential Exhibit PAC/103

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
$													

Projected NPC Comparison to Prior ECAC

Coinfidential Exhibit PAC/103

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							

Projected NPC Comparison to Prior ECAC

Coinfidential Exhibit PAC/103

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							

Coinfidential Exhibit PAC/103

Projected NPC Comparison to Prior ECAC

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							

Projected NPC Comparison to Prior ECAC

Coinfidential Exhibit PAC/103

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
						$							

Application No. 22-08-___
Exhibit No. PAC/104
Witness: Ramon J. Mitchell

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Direct Testimony of

Ramon J. Mitchell

2023 California-allocated NPC

August 2022

Exhibit PAC/104
PacifiCorp
2023 California-allocated NPC

Description	CY 2023 Total Company	Per Docket A.18-04-002 2017 Protocol Factor	California Factor %	CY 2023 California Allocated
Sales for Resale (Account 447)				
Existing Firm Sales PPL	6,446,989	SG	1.580%	101,890
Existing Firm Sales UPL	-	SG	1.580%	-
Post-merger Firm Sales	389,608,251	SG	1.580%	6,157,503
Total Revenue	396,055,240			**6,259,393**
	-			
Purchased Power (Account 555)				
Existing Firm Demand PPL	11,628,369	SG	1.580%	183,779
Existing Firm Demand UPL	-	SG	1.580%	-
Existing Firm Energy	28,648,381	SE	1.490%	426,940
Post-merger Firm	907,691,022	SG	1.580%	14,345,461
Other Generation	-	SG	1.580%	-
Seasonal Contracts	-	SG	1.580%	-
Total Purchased Power	947,967,772			**14,956,180**
	395,255,374			
Wheeling (Account 565)				
Existing Firm PPL	22,565,269	SG	1.580%	356,629
Existing Firm UPL	-	SG	1.580%	-
Post-merger Firm	137,727,474	SG	1.580%	2,176,692
Non-firm	19,972,531	SE	1.490%	297,646
Total Wheeling Expense	180,265,273			**2,830,968**
	-			
Fuel Expense (Accounts 501, 503 and 547)				
Fuel Consumed - Coal	650,326,579	SE	1.490%	9,691,663
Fuel Consumed - Gas	15,789,765	SE	1.490%	235,311
Steam From Other Sources	4,508,907	SE	1.490%	67,195
Natural Gas Consumed	337,810,529	SE	1.490%	5,034,310
Simple Cycle Combustion Turbines	11,762,010	SE	1.490%	175,286
Cholla/APS Exchange	-	SE	1.490%	-
Total Fuel Expense	1,020,197,791			**15,203,767**
	-			
CY 2023 Net Power Cost	**1,752,375,596**			**26,731,521**