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August 26, 2021

Via Electronic Filing

Public Utility Commission of Oregon
Attn: Filing Center
201 High St. SE, Suite 100
Salem OR 97301

Re: In the Matter of PACIFICORP, dba PACIFIC POWER
2022 Transition Adjustment Mechanism.
Docket No. UE 390

Dear Filing Center:

Please find enclosed a redacted version of the Revised Rebuttal Testimony and Exhibits of Bradley G. Mullins (AWEC/200–205) on behalf of the Alliance of Western Energy Consumers ("AWEC") in the above-referenced docket.

AWEC's revised filing updates Exhibit AWEC/202, which inadvertently included Protected Information when it was originally filed on July 30, 2021. Mr. Mullins' Rebuttal Testimony and Exhibits are otherwise unchanged. A revised version of Confidential Exhibit AWEC/202 was filed with the Commission and served on parties on August 25, 2021.

Thank you for your assistance. If you have any questions, please do not hesitate to call.

Sincerely,

/s/ Jesse O. Gorsuch
Jesse O. Gorsuch

Enclosures

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 390

In the Matter of	)
	)
PacifiCorp d/b/a Pacific Power	)
	)
2022 Transition Adjustment Mechanism	)
	)

REBUTTAL AND CROSS-ANSWERING TESTIMONY OF

BRADLEY G. MULLINS

ON BEHALF OF

ALLIANCE OF WESTERN ENERGY CONSUMERS

(REDACTED)

July 30, 2021

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AWEC/204 – Revised Other Revenue Adjustment, Including Coal Ash Sales

AWEC/205 – Portland General Electric Company Negative Opt-Out Charges From 2008

I. INTRODUCTION AND SUMMARY

Q. ARE YOU THE SAME WITNESS WHO PREVIOUSLY FILED OPENING TESTIMONY ON BEHALF OF AWEC IN THIS DOCKET?

A. Yes. I previously filed Opening Testimony on behalf of the Alliance of Western Energy Consumers ("AWEC") regarding PacifiCorp's proposed Transition Adjustment Mechanism ("TAM") revenues, including Net Power Costs ("NPC"), for calendar year 2022.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I respond to the Reply Testimony of PacifiCorp witnesses Staples and Ralston regarding the NPC issues raised in my Opening Testimony. I also respond to PacifiCorp witness Meredith regarding the Consumer Opt-Out Charge.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY

A. My recommendations are summarized in Table 1, below, followed by brief descriptions of each issue.

Table 1-REB
AWEC Proposed TAM Adjustments
($000)

		Primary Recommendation	Alternative Market Cap Method
1	**Rebuttal Filing**	**1,712,670**	**1,712,670**
2	Adjustments		
5	Market Caps	(7,027,724)	(1,510,044)
6	Other Revenues	(929,973)	(929,973)
7	BCC Materials & Supplies	(1,175,112)	(1,175,112)
8	**Total Adjustments**	**(9,132,809)**	**(3,615,128)**
9	**Adjusted**	**(7,420,139)**	**(1,902,458)**

Production Tax Credit Rate: PacifiCorp accepted my recommendation to update the production tax credit rate for 2022 to 2.6¢/kWh in its Rebuttal Filing. I maintain this recommendation in the present testimony.

Market Caps: I continue to recommend maintaining the currently approved methodology for Market Caps. If the Commission does decide to change the methodology, I also offer an alternative recommendation that ties off-system sales directly to the historical average.

Bridger Coal Company Materials & Supplies: I continue to recommend an adjustment for the materials and supplies forecast at Bridger Coal Company. PacifiCorp has not offered any explanation as to why the historical over-forecasting, which PacifiCorp did not dispute, was reasonable and not recurring.

Other Revenues: I continue to recommend fly ash sales be considered in the other revenue forecast.

Consumer Opt-Out Charge: I recommend that Calpine's recommendation regarding the Consumer Opt-Out Charge be adopted.

II. PRODUCTION TAX CREDIT RATE

Q. DID PACIFICORP ACCEPT YOUR RECOMMENDATION TO INCREASE THE PRODUCTION TAX CREDIT RATE TO 2.6¢/KWH?

A. Yes. [1/] This recommendation reduces TAM revenues by $2,649,684.

III. AVERAGE MARKET CAPS

Q. PLEASE SUMMARIZE THE RECOMMENDATION YOU MADE REGARDING THE MODELING OF MARKET CAPS IN OPENING TESTIMONY?

A. In Opening Testimony, PacifiCorp proposed modifying its Market Cap methodology to be based on the methodology that the Commission rejected in the 2013 TAM, Docket No. UE 245. Rather than using the Market Cap methodology based on the highest monthly average of short-term firm market transactions, in the four-year base period, PacifiCorp proposed using the four-year average, consistent with its proposal in the 2012 TAM filing, Docket No. UE 227. PacifiCorp claimed that the Commission-approved method results in an over-estimation of sales. While PacifiCorp provided no evidence to support its change in Direct Testimony

1/ PAC/400, Staples/5:14-17.

other than a reference to the Commission's final order in Docket No. UE 374, PacifiCorp has provided new information and analysis in Reply Testimony. In Opening Testimony, I recommended the Commission reject PacifiCorp's proposal. In this testimony, I demonstrate that the Commission-approved methodology produces overall wholesale sales levels that are in line with historical data, and accordingly, continue to recommend the Commission reject PacifiCorp's proposal. Notwithstanding, if an adjustment is to be made, I recommend the adjustment be targeted to specific markets based on an alternative methodology that I discuss below.

Q. HOW DID PACIFICORP RESPOND TO YOUR OPENING TESTIMONY?

A. PacifiCorp continues to argue that a methodological change is warranted because it has under-recovered NPC in the past.[2/] PacifiCorp also claims that the wholesale market sales forecast in the GRID model exceeds historical actual wholesale market sales,[3/] although it uses an inconsistent analysis to support its claim. Finally, PacifiCorp argues that increased penetration of renewable resources in its portfolio increases the disparity between expected and actual off-system sales.[4/] PacifiCorp does not develop this final argument.

Q. DO YOU AGREE THAT PACIFICORP IS PERSISTENTLY UNDER-RECOVERING IN OREGON?

A. No. The power cost adjustment framework in Oregon, including both the TAM and the Power Cost Adjustment Mechanism ("PCAM"), was carefully designed with the objective of preventing PacifiCorp from under-recovering its overall costs. That is why the Commission imposed an earnings test in the PCAM.[5/] In 2019, for example, PacifiCorp earned a 9.34%

2/ PAC/400, Staples/20:9-10.
3/ PAC/400, Staples/18:8-9.
4/ PAC/400, Staples/20:13-15.
5/ Docket No. UE 246, Order No. 12-493 at 14-15 (Dec. 20, 2012).

Return on Equity, even though its actual NPC was approximately $200,000,000 higher than the TAM forecast. Thus, when arguing that it has under-recovered NPC, PacifiCorp is ignoring the fact that, when viewed on a holistic basis, it has been fully recovering all of its costs and earning a reasonable rate of return in every year of recent history.

Further, the GRID model is designed to produce a normalized forecast of NPC, which does not consider the extraordinary events that have taken place in recent years. In late 2018 and early 2019, for example, there was a pipeline rupture on the Enbridge West Coast pipeline that precipitated an energy crisis that would have been impossible to foresee in the context of a TAM forecast. Similarly, in 2020 the West experienced high market prices as a result of wildfires in Oregon and California.

Q. IS THE AURORA MODEL RELEVANT TO THE USE OF MARKET CAPS IN THIS PROCEEDING?

A. Yes. PacifiCorp has indicated that it will be transitioning to AURORA as its nodal pricing model pursuant to the terms of the 2020 Protocol.

PacifiCorp, however, did not to implement the AURORA model in this proceeding, despite using it just two months later in a filing in Washington.[6/] The AURORA model contains a more sophisticated commitment and dispatch logic than the GRID model, which better mimics the actual operation of PacifiCorp's gas plants. At a minimum, any changes made in this proceeding would be premised on the modeling logic used by the GRID model and would not set any expectations for use with, or precedent applicable to, the AURORA model. Thus, while PacifiCorp argues that a simple, straightforward fix is required in this proceeding, the purported effect of the change is transient, as it will later be supplanted with an

[6/] See Washington Utilities and Transportation Commission Docket No. UE-210402, PacifiCorp 2022 Power Cost Only Rate Case (June 1, 2021).

entirely new model. This is like spending money to put new tires on an old car, which one anticipates donating to charity.

Rather than performing a comprehensive rework of the GRID model in this docket today, it would be more fruitful, knowing that the GRID model will be imminently replaced, to maintain the status quo and wait until the AURORA model is implemented to resolve such controversial modeling issues.

It is possible that the AURORA model will have the same limitations as the GRID model, however it is also possible that it may not. Until the model is presented and the parties are given the opportunity to investigate the model, it is impossible to know whether any analysis adopted in this proceeding will be relevant going forward or otherwise resolved through the new model logic. Given that PacifiCorp did not implement the AURORA model in this docket, however, it is inappropriate to make controversial modeling changes to the GRID model that might otherwise be resolved in the AURORA model.

Q. DID PACIFICORP PRESENT ANY ANALYSIS DEMONSTRATING THAT INCREASED PENETRATION OF RENEWABLE RESOURCES IN PACIFICORP'S PORTFOLIO HAS INCREASED THE DISPARITY BETWEEN EXPECTED AND ACTUAL OFF SYSTEM SALES?

A. No. This was a concerning statement, however. PacifiCorp has justified large volumes of new renewable resources based on its ability to make off-system sales. If those expected off-system sales cannot be realized in actual operations, then it calls into question the efficacy of not just this TAM modeling but also the Integrated Resource Plan modeling supporting these new resource additions.

Q. DID PACIFICORP PERFORM ANY NEW ANALYSIS TO SUPPORT ITS PROPOSAL TO REVERT BACK TO AVERAGE MARKET CAPS?

A. Yes, however the new analyses are either irrelevant or inaccurate.

For example, in Exhibit PAC/400, Staples/23, Figure 3, PacifiCorp presents a numerical example that is intended to show that the use of a maximum average value for Market Caps results in over-forecasting wholesale market sales. That analysis, however, was based on made-up numbers that have no bearing on the actual sales that PacifiCorp has made in the past, nor are they used in the Market Cap calculation. Additionally, the analysis is based on six time periods, rather than the four time periods used in the Market Cap calculation.

Further, the mathematical conclusion PacifiCorp reaches from the numerical example is irrelevant to the issue at hand with respect to Market Caps. The only fact that may be ascertained from PacifiCorp's numerical example is that the maximum of a set of numbers exceeds the average of the same set of numbers. This mathematical conclusion, however, does not implicate the Market Cap methodology. Market Caps in the GRID model function as the maximum amount of sales that can be made in a particular time period at a particular market hub, not the average. The GRID model does not transact at the maximum amount assumed in the Market Cap calculation in every hour. While the GRID model can transact up to the level assumed in the Market Cap calculation, the GRID model transacts at less than the Market Cap value in many hours, and is making sales in some hours. Thus, the fact that a maximum value is being used for Market Caps does not necessarily demonstrate whether the GRID model will ultimately produce sales at, above, or below, the historical average.

Q. HAVE YOU PERFORMED A SIMILAR ANALYSIS USING ACTUAL DATA?

A. Yes. Table 2-REB, below, provides a concrete example, using actual data from the GRID model, showing that the use of a maximum value for Market Caps does not necessarily result in GRID model sales exceeding the historical average.

CONFIDENTIAL TABLE 2-REB
Mona Market Cap Calculation
Average of Average v. Max Average
February 2022 aMW

[redacted]

Table 2-REB details the actual Heavy-Load-Hour ("HLH") and Light-Load-Hour ("LLH") Market Cap calculation for the Mona market for May 2022 of the test period. The calculation is performed using actual wholesale sales in four periods: May 2017, May 2018, May 2019, and May 2020. Under the Commission-approved method, the Market Cap is calculated as the maximum of these four values, labeled "Max Average." In the row titled "GRID (Commission)", the actual GRID model sales using the Commission-approved Market Cap calculation are detailed. As can be seen, the GRID model does not transact up to the maximum value in every hour, and accordingly, the resulting sales value is ultimately less than (or approximately equal to) the average of the four values used to calculate the Market Cap.

Similarly, if using the average value as the Market Cap value, as PacifiCorp proposes, the GRID model will inherently transact less than the average amount. This is due to the fact that the GRID model sometimes transacts at lower levels than, but never exceeds, the historical average. Thus, demonstrating that the maximum always exceeds the average does not necessarily indicate that using a market cap value based on the maximum average value will result in GRID model sales that are more than the average value. By using the maximum value, however, it is possible that the GRID model could forecast a volume of transactions that exceeds the historical value depending on the distribution of sales levels at a particular market.

Q. HAVE YOU PERFORMED A SIMILAR ANALYSIS FOR OTHER MARKETS?

A. Yes. In Exhibit AWEC/201, I have performed an analysis of the market cap calculation for each market and each time period to determine the extent that using the maximum average value produces a GRID model result that exceeds the average value. The result of that analysis is presented in Table 3-REB, below:

Table 3-REB
GRID Model Sales Variance from Four-Year Historical Average

	PacifiCorp Proposed				Commission Approved			
	COB	4C	Mona	Mead	COB	4C	Mona	Mead
Jan	-0%	-15%	-29%	-24%	84%	9%	-17%	-25%
Feb	-31%	-26%	-41%	-28%	21%	-6%	-32%	-23%
Mar	-34%	-35%	-51%	-24%	-4%	-7%	-8%	21%
Apr	-29%	-26%	-50%	-47%	-14%	1%	-27%	-15%
May	-25%	-51%	-60%	-77%	33%	-25%	-41%	-70%
Jun	-20%	-7%	-9%	-49%	20%	33%	51%	-46%
Jul	-31%	-4%	-4%	-20%	43%	62%	115%	-4%
Aug	-33%	-2%	-8%	-7%	27%	45%	50%	36%
Sep	-13%	-2%	-1%	-17%	69%	27%	30%	-12%
Oct	0%	-2%	-27%	-39%	38%	45%	-14%	-36%
Nov	-0%	-4%	-36%	-49%	44%	12%	-22%	-54%
Dec	-6%	-25%	-52%	-56%	64%	-11%	-41%	-61%
Average	-19%	-17%	-31%	-36%	36%	15%	4%	-24%

As can be seen from the table, PacifiCorp's methodology produces GRID model sales values that are always below the four-year historical average of actual sales and by a significant margin. In contrast, the Commission-approved method produces results that are sometimes below and other times above the four-year historical average. In the Commission-approved method, the sales from the California Oregon Border ("COB") market produce the largest positive variances, whereas the Mead Market produces the largest negative variances. I discuss some methods to address the variances associated with the Commission-approved method below. First however, it is necessary to discuss the errors in the analysis of historical sales that PacifiCorp performed.

Q. WHAT ANALYSIS DID PACIFICORP PERFORM WITH RESPECT TO HISTORICAL WHOLESALE SALES VOLUMES?

A. In the second Figure 3 in Exhibit PAC/400, Staples/23, PacifiCorp presents a comparison between the sales volumes reported in the Actual NPC Report with the amounts reported the GRID NPC report over the period 2012 through 2020.[7/] Further, in Figure 4 in Exhibit PAC/400, Staples/24, PacifiCorp performs a similar analysis based upon sales revenues.

Q. DO YOU AGREE WITH PACIFICORP'S ANALYSIS OF HISTORICAL SALES?

A. No. PacifiCorp's comparison between the sales volumes reported in the Actual NPC Report and the GRID NPC report is inaccurate and invalid. The sales reported in the Actual NPC report are in no way comparable to the sales reported in the GRID NPC report. This is critically important. The reason for this is, for accounting purposes, the sales included in the Actual NPC report are adjusted for transactions which have been booked-out.

Q. WHAT ARE BOOK-OUTS?

A. In its FERC Form 1 accounting, PacifiCorp makes an adjustment to reverse certain off-setting purchase and sale transactions, which are for the same delivery period and at the same location.

[7/] Note that at Exhibit PAC/400, Staples/23, the figures related to historical wholesale sales are misnumbered.

This netting adjustment is referred to as a book-out adjustment. PacifiCorp still earns revenues and benefits from the underlying offsetting transactions and the transactions are still reported in Sales for Resale in FERC Account 447. The revenues from the underlying offsetting transactions, however, are deducted from Account 447, as a separate adjustment, and netted against purchases. This book-out adjustment can be found on pages 310.8-311.8 of PacifiCorp's 2020 FERC Form 1, an excerpt from which is detailed in Figure 1 below.

Figure 1-REB
Book-out Adjustment to Wholesale Sales in 2020 FERC Form 1

Line No.	Name of Company or Public Authority (Footnote Affiliations) (a)	MegaWatt Hours Sold (g)	REVENUE Other Charges ($) (j)
8	Netting - Bookouts	-4,947,283	-134,256,359

Thus, while PacifiCorp made 9,833,194 MWh of wholesale sales, corresponding to wholesale sales revenues of $309,000,337,[8/] the total amount of sales reported in its Actual NPC was reduced for the book-out adjustment identified in Figure 1-REB. Accordingly, in the Actual NPC report, PacifiCorp only reported 4,885,911 MWh of sales, and corresponding sales revenues of $173,806,881.[9/] The book-out adjustment in Actual NPC represents over half of the sales that PacifiCorp made in 2020 and therefore cannot be ignored when forming comparisons between the GRID model results and Actual NPC.

Q. DOES THE GRID MODEL INCLUDE BOOKED-OUT TRANSACTIONS?

A. Yes. The GRID NPC report includes transaction volumes which would otherwise be booked-out in the adjustment identified in Figure 1-REB and not reported in the Actual NPC report.

8/ Excluding Long-term sales. See Exhibit AWEC/202 for the underlying data.
9/ Representing the 9,833,194 MWh of wholesale sales and $309,000,337 of wholesale revenues reported in Actual NPC, less the amounts detailed in Figure 1-REB.

These book-out transactions in the GRID model NPC report include both the imputed offsetting volumes associated with the DA/RT adjustment, as well as sales volumes associated with an exchange transaction with Public Service Company of Colorado ("PSCo"). Because the PacifiCorp analysis did not make an adjustment to consider these items in a consistent manner, the result is an invalid comparison.

Q. HOW DID PACIFICORP RESPOND TO THE HISTORICAL ANALYSIS OF SALES TRANSACTIONS YOU PRESENTED IN OPENING TESTIMONY?

A. In Opening Testimony, I presented an analysis comparing actual wholesale sales over the period 2016-2020 to the amounts forecast in GRID in this Docket using the Commission-approved Market Cap methodology. When performing the analysis, I made an adjustment to the sales reported in the Actual NPC report to account for book-out transactions in order to produce an analysis that is consistent with the GRID model NPC report. My analysis demonstrated that off-system sales being forecast in the GRID model are less than the historical average, suggesting that the current market cap methodology is too restrictive.[10/]

PacifiCorp did not dispute the results of my analysis. Instead, PacifiCorp argued, incorrectly, that "GRID does not simulate offsetting purchases and sales at a single location in any hour, so booked out volumes do not belong in a discussion of the comparison between GRID's forecasted market activities and actual purchases and sales."[11/] Given the magnitude of the book-out adjustment included in Actual NPC identified above, this statement represents a misunderstanding of the relationship between the GRID model NPC Report and the Actual NPC report.

10/ AWEC/100, Mullins/14.
11/ PAC/400, Staples/25:15-18.

Q. IS IT TRUE THAT "GRID DOES NOT SIMULATE OFFSETTING PURCHASES AND SALES"[12]?

A. No. PacifiCorp states that the GRID model does not simulate offsetting purchases and sales.[13] This statement, however, is far from truth. As noted, the GRID NPC report includes volumes associated with the DA/RT adjustment, as well as sales volumes associated with the PSCo exchange, both of which are booked-out in the Actual NPC report. Therefore, treating these items as a book-out in Actual NPC, but not in the GRID model NPC report, results in an inconsistent and invalid comparison.

Q. PLEASE DISCUSS WHY THE DA/RT ADJUSTMENT IS REPRESENTATIVE OF BOOK-OUT TRANSACTIONS?

A. PacifiCorp's Rebuttal NPC includes [redacted] MWh of additional sales volumes and $[redacted] of additional sales revenues associated with the DA/RT adjustment. The DA/RT adjustment was implemented in Docket No. UE 296 as a component of the GRID modeling specifically to address the impact of offsetting purchase and sales transactions, which are being booked-out in the Actual NPC report. PacifiCorp described the DA/RT volumes as follows:

> As designed, the GRID model perfectly balances each hour to the fraction of a megawatt and does not simulate transacting in the market for standard products. The result of the Company's [DA/RT] adjustment is to include additional monthly, daily, and hourly transactions, in the form of offsetting sales and purchases representing this balancing process.[14]

In PacifiCorp's Opening Brief in Docket No. UE 296, PacifiCorp, in no ambiguous terms, emphasized the need for consistent treatment of book-out transactions and the DA/RT volumes when forming comparisons between the Actual NPC report and the GRID NPC report:

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[12] PAC/400, Staples/25:15-16.
[13] Id.
[14] Docket No. UE 296, PAC/500, Dickman/15:5-9.

> Comparisons between transaction levels in actual and forecast NPC must include or exclude book-out transactions on both sides to avoid apples-to-oranges comparisons. Here, the Company demonstrated that its modeled volumes, including the additional [DA/RT] system balancing transactions that are proxies for bookouts, correspond to historical transaction volumes including bookouts.[15]

As PacifiCorp explained, the DA/RT volumes are proxies for book-outs, and therefore, need to be considered in a consistent manner as book-outs. I am not opposing the DA/RT adjustment in this proceeding, and therefore, have accepted PacifiCorp's representation that the DA/RT volumes are the same as book-out transactions. If they are not, however, then the simple solution to addressing the alleged over-forecasting of market sales would be to eliminate the DA/RT adjustment, and the associated incremental sales volumes, altogether.

When I performed the analysis of historical transactions in Opening Testimony, I used the same analysis that PacifiCorp performed in Docket No. UE 296 to support the DA/RT adjustment, including book-out transactions on both sides of the analysis. As I discuss below, however, one could perform an alternative analysis by excluding book-outs from both sides, which also yields similar results to the analysis that I presented in Opening Testimony. Either way, the analysis shows that the overall sales volumes forecast using the Commission approved method is in line with the historical volumes.

Q. PLEASE DISCUSS WHY THE PSCO EXCHANGE AGREEMENT RESULTS IN BOOK-OUT VOLUMES IN GRID.

A. The PSCo Exchange Agreement is a unique transaction that results in large volumes of booked-out transactions at the Palo Verde Market. Under the PSCo Exchange Agreement, PacifiCorp delivers [redacted] MW of energy to PSCo at the Craig power plant in Colorado. In exchange, PSCo returns [redacted] MW of power at the Palo Verde Market back to PacifiCorp. In

[15] Docket No. UE 296, PacifiCorp Opening Brief, at 17:14-18 (Sep. 14, 2015) (internal citations omitted).

GRID, the PSCo Exchange Agreement is modeled as a [redacted] MW sale at the Craig power plant and a corresponding [redacted] MW purchase at Palo Verde. PacifiCorp pays $5,400,000 per year to PSCo in connection with this exchange agreement, which is scheduled to expire at the end of October 2022 in the test period.

Notwithstanding the agreement to receive power at the Palo Verde market, PacifiCorp does not maintain any long-term transmission rights from the Palo Verde market to any other part of its system. Accordingly, all power delivered by PSCo to the Palo Verde market must be subsequently remarketed at the Palo Verde market in the same hours that it is received. The consequence of remarketing the power at the same location and same point in time is that a large volume of sales transactions at the Palo Verde market ends up being included in the book-out adjustment and removed from the wholesale sales reported in Actual NPC. Notwithstanding, the Palo Verde sales attributable to the PSCo exchange return are still included in GRID as a wholesale sale, and therefore, need to be removed when forming a comparison back to Actual NPC.

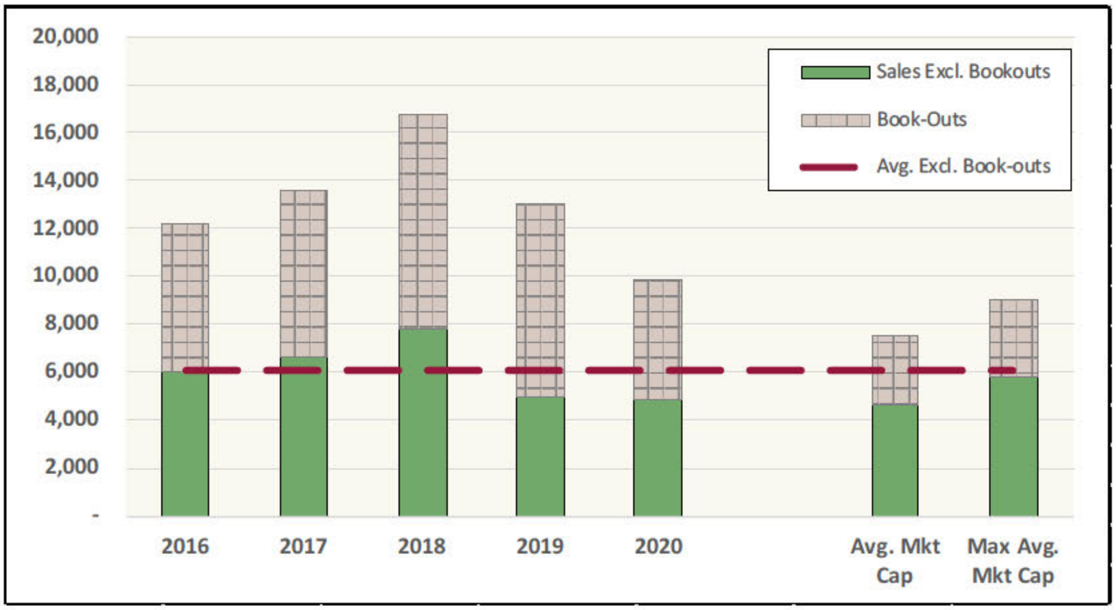
In fact, virtually all sales at the Palo Verde market in the test period are attributable to the resale of power returned under PSCo Exchange Agreement. PacifiCorp has historically held [redacted] MW of long-term transmission rights to the Palo Verde market. These transmission rights, however, expired at the end of 2020, corresponding to the retirement of Cholla 4. As a result of the Cholla 4 retirement, PacifiCorp no longer has any meaningful transmission rights to, or from, the Palo Verde market. Accordingly, the PSCo Exchange Agreement volumes are the only volumes capable of being sold Palo Verde, other than some immaterial short term firm transmission purchases. In the GRID model there are approximately [redacted] MWh in sales at the Palo Verde market in 2022 attributable to the PSCo Exchange Agreement return, which will be booked-out in the Actual NPC report.

These PSCo Exchange Agreement resales can be noted plainly in the GRID NPC Report. At PAC/402, Staples/1, PacifiCorp reports $71,631,443 of sales at Palo Verde even though it has no long-term transmission to access the Palo Verde market. After the PSCo Exchange Agreement expires in November 2022, however, the Palo Verde sales decline to nearly zero, corresponding to some minor amounts of non-firm transmission modeled in GRID.

Q. HAVE YOU PREPARED AN UPDATED VERSION OF THE COMPARISON TO ACTUAL NPC WITH BOOK OUTS EXCLUDED FROM BOTH SIDES?

A. Yes. In Exhibit AWEC/202, I perform an analysis of historical sales included in the actual NPC report, with an adjustment removing booked-out transactions, to the level of sales forecast by GRID in this docket, with a similar adjustment removing booked-out transactions. I performed this comparison based on the GRID model output using both the Commission-approved Market Cap methodology and PacifiCorp's proposed Market Cap methodology. It shows that, if book-outs are considered in a consistent manner, the Commission-approved methodology, using the maximum average value, produces a level of sales volumes that are consistent with the historical average, and that PacifiCorp's proposed method under-forecasts sales relative to the historical average. This analysis has been summarized in Figure 2-REB, below.

Figure 2-REB
Comparison to Historical Sales Volumes Excluding Book-outs



The above figure is identical to the one presented in my Opening Testimony, with the exception that I have deducted book-outs from both the historical Actual NPC report data and the GRID model forecast data. The book-out transaction amounts, which have been deduced, have been shaded with a cross hatch. As can be seen from the table, if booked-outs transactions are excluded from both the GRID model NPC and Actual NPC, the use of the Commission approved methodology produces a level of sales that is consistent with the historical average, suggesting that the Commission approved method continues to be a viable way to forecast NPC.

Q. WHY THEN DOES TABLE 3-REB ON PAGE 8 OF THIS TESTIMONY SHOW SALES HIGHER THAN THE HISTORICAL AVERAGE AT CERTAIN MARKETS?

A. Market caps are only applied to the four markets identified in Table 3-REB. Markets such as Mid-C and Palo Verde do not have market caps applied. Even though there are no market caps applied to these markets, they tend to generate fewer sales in GRID than were made in the historical average period, thus offsetting the higher sales identified in Table 3-REB. Further, some markets result in a volume of sales less than the historical average and other markets result in a volume of sales more than the historical average, producing an offsetting effect.

It can be seen from the analysis in Table 3-REB, however, that GRID does produce more sales at COB than PacifiCorp was capable of making in the historical period. Given the economics of the COB market, the GRID model forecasts sales up to the market cap level in many hours of the year.

Similarly, GRID tended to produce higher sales at the Four Corners market than the historical average. The higher sales at Four Corners, however, can largely be explained by the loss of transmission to the Palo Verde market discussed above. Economic sales that were previously being made at Palo Verde must now be made at Four Corners.

Finally, the analysis shows that GRID consistently under-forecasts sales at Mead, even in the absence of Market Caps. The under-forecasting of sales at Mead is likely a byproduct of overly restrictive transmission limitations being applied to that market.

Q. IS THERE A WAY TO ADDRESS THE OVER FORECASTING OF SALES AT THE SPECIFIC MARKETS, SUCH AS COB AND FOUR CORNERS, IN TABLE 3-REB?

A. One alternative is to simply cap the overall modeled sales at the markets identified in Table 3-REB at a level that produces sales not exceeding the historical averages. That is, rather than using a market cap equal to the historical average, this approach sets the market cap through a few iterative GRID model runs so that the GRID model produces results that equal, but do not exceed, the historical average at any market or any time period. This can be accomplished through a simple approach that eliminates any controversy about whether the GRID model over or under forecasts sales relative to the historical levels for these markets. One problem with this approach is that it would not necessarily reflect the changes in PacifiCorp's portfolio that occurred within or subsequent to the historical period. It also does not address the under forecasting of sales at certain markets, such as Mona or Mead.

Q. HAVE YOU PREPARED SUCH AN ANALYSIS?

A. Yes. To perform the analysis, I performed three GRID runs. In the first run, I removed Market Caps altogether to evaluate the level of sales that would be generated in each market and each hour in the absence of Markets Caps. In the second run, I applied a cap to the sales generated in the first run at a level that would limit sales to no more than the historical average. Since this second run resulted in redispatch and modified sales levels at the different markets, I performed a third run where I reapplied the cap based on the output of the second run to address the redispatch resulting from the market caps applied in the second run. The monthly diurnal results of the analysis are detailed in Exhibit AWEC/201, summarized in Table 4-REB, below.

Table 4-REB
GRID Model Sales Variance from Historical Average

	AWEC Alternate			
	COB	4C	Mona	Mead
Jan	*0%*	*0%*	*-25%*	*-24%*
Feb	*-0%*	*0%*	*-36%*	*-23%*
Mar	*-4%*	*-20%*	*-43%*	*-0%*
Apr	*-9%*	*-0%*	*-19%*	*-31%*
May	*0%*	*-0%*	*-64%*	*-71%*
Jun	*0%*	*0%*	*-0%*	*-46%*
Jul	*-0%*	*-0%*	*0%*	*-12%*
Aug	*2%*	*0%*	*1%*	*1%*
Sep	*-0%*	*-0%*	*0%*	*-11%*
Oct	*0%*	*-0%*	*-21%*	*-34%*
Nov	*0%*	*0%*	*-33%*	*-50%*
Dec	*-0%*	*-0%*	*-47%*	*-60%*
Average	*-1%*	*-2%*	*-24%*	*-30%*

As can be seen, with the exception of a few megawatts of variance in August, this methodology produces sales up to, but never exceeding, the four-year historical average. The positives in August could have been eliminated with an additional iteration, although the effect would be negligible.

Q. WHAT IS THE IMPACT OF THIS ALTERNATIVE METHOD

A. Relative to PacifiCorp's Rebuttal filing, the impact of this alternative method is a $5,802,809 reduction to system NPC, with $1,510,044 of the reduction allocated to Oregon. In contrast, using the Commission approved method is a $26,538,162 reduction to system NPC, with $7,027,723 allocated to Oregon based on PacifiCorp's Rebuttal Filing.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATION.

A. I disagree that the "current methodology for forecasting sales activity is broken."[16/] Such claims are based on a faulty analysis and incorrect understanding of the way that booked-out transactions impact Actual NPC. Accordingly, I continue to recommend that the currently approved market cap methodology be used to forecast net power costs. Maintaining the status quo is particularly important as Oregon transitions to the AURORA model for forecasting NPC.

Notwithstanding, if the Commission does decide to make any changes to the Market Cap methodology in this case, I recommend adopting the alternative methodology discussed above, where the Market Cap sales levels from the GRID model are set directly at, or below, the four-year average.

IV. BRIDGER COAL COMPANY MATERIALS AND SUPPLIES

Q. WHAT ANALYSIS DID YOU PERFORM WITH RESPECT TO BRIDGER COAL COMPANY MATERIALS AND SUPPLIES EXPENSES IN OPENING TESTIMONY?

A. In Confidential Exhibit AWEC/105, I performed an analysis evaluating the accuracy of PacifiCorp's forecast of materials and supplies expenses at Bridger Coal Company ("BCC"). The analysis reviews the BCC forecast prepared in the final TAM update filings in Docket Nos. UE 232 (2018 TAM), UE 339 (2019 TAM) and UE 356 (2020 TAM). The analysis showed that PacifiCorp's prior forecasts for materials and supplies expenses at BCC were grossly overstated in every year analyzed. In 2020, for example, the forecast was overstated by 32%. Accordingly, I recommended an adjustment based the historical variances.

[16/] PAC/400, Staples/24:17-18.

Q. HOW DID PACIFICORP RESPOND?

A. PacifiCorp did not dispute that the BCC material and supplies expenses had been grossly overstated. PacifiCorp also acknowledged that it has historically overstated the cost per ton of coal from the BCC. Notwithstanding, PacifiCorp accuses me of "cherry-picking."[17/] PacifiCorp also has concerns with my calculations, including the use of a single royalty rate and the inclusion of reclamation volumes in my adjustment calculation.

Q. WAS YOUR ANALYSIS "CHERRY PICKING"?

A. As a threshold matter, it is unclear to me what meaning PacifiCorp intended by using the term "cherry-picking" when referring to my testimony. PacifiCorp seems to be objecting to the idea that an adjustment to a single cost item should be allowed. If that were the case, however, then no party could ever propose an adjustment to the utility's rates. Indeed, PacifiCorp's proposal to change the market caps method is just as much "cherry-picking" as my adjustment to BCC materials and supplies. The development of an accurate power cost forecast demands that each element of that forecast be independently predicted with as much precision as possible.

Q. DID YOU IGNORE RELEVANT EVIDENCE THAT CONTRADICTS YOUR PROPOSAL?

A. No. To the extent that PacifiCorp is arguing that I ignored offsetting factors, I also disagree with that characterization. PacifiCorp acknowledges it has materially overstated its budget for BCC in past proceedings. PacifiCorp acknowledges that "During 2018 through 2020, Jim Bridger plant coal received costs from BCC expressed on a cost per one million British thermal units (MMBtu) basis are [redacted] less than rates estimated in the referenced TAM filings."[18/] In conducting my review, I also noted this large discrepancy between the forecast costs

17/ PAC/400, Staples/94:8-9.
18/ PAC/600, Ralston/31:20-32:1 (internal citations omitted).

included in the TAM and the actual costs at BCC. I also noticed that some costs were higher and others cost were lower on a year-to-year basis and did not ignore those cost items when performing my analysis.

Q. WHY DID YOU FOCUS ON MATERIALS AND SUPPLIES EXPENSE?

A. While some costs were overstated and others understanded, consistent across all years was the fact that the materials and supplies expense budget was grossly higher than the amount that was actually incurred. While PacifiCorp is correct that there were many factors leading it to budget significantly more than it actually spent at BCC, I attributed the materials and supplies expense to be the primary driver of PacifiCorp' budget variance. Further, materials and supplies expenses are controllable costs. Therefore, there is no viable reason for a budget of these types of costs to be misstated by the magnitude identified in my Opening Testimony. It is important to point out that PacifiCorp did not attempt to explain why its materials and supplies expenses were so misstated relative to its forecast.

Q. DO YOU CONTINUE TO RECOMMEND AN ADJUSTMENT ASSOCIATED WITH BCC'S POOR BUDGETING PRACTICES?

A. Yes. I continue to recommend adjusting BCC's budgeted materials and supplies expense to reflect historical budget variances. In my updated adjustment detailed in Confidential Exhibit AWEC/203, I have accepted PacifiCorp's recommendation to adjust the royalties calculation to account for the slightly lower underground royalty rate on coal delivered from the underground mine, although the effects of this were negligible.

I also adjusted the calculation to reflect the fact that I had applied the per-ton amount to PacifiCorp's share of the coal volumes delivered to BCC, and then reapplied a second adjustment to reduce the volume for PacifiCorp's share again. This correction results in a larger adjustment value.

Finally, I did not make any adjustment to account for increased reclamation activities in 2018 through 2020. Reducing the expenses incurred in those years for reclamation activities would result in an increase to the budget variances, which I found to be unnecessary when performing the adjustment.

Q. WHAT IS THE IMPACT OF YOUR UPDATED RECOMMENDATION?

A. The updated recommendation in Confidential Exhibit AWEC/203 produces a $4,632,013 reduction to PacifiCorp allocated coal costs. On an Oregon-allocated basis, this adjustment amounts to a $1,175,112 reduction to NPC.

Alternatively, if the Commission agrees with the Company that my recommendation is too narrowly focused, I recommend that the Commission simply apply the overall BCC forecast error of [redacted] to coal from BCC in the test period. This alternative recommendation produces a $10,079,517 reduction to PacifiCorp allocated coal costs on a system basis, and a $2,557,109 reduction to NPC on an Oregon-allocated basis.

V. OTHER REVENUES

Q. WHAT WAS YOUR RECOMMENDATION RELATED TO OTHER REVENUES?

A. I recommended including an Other Revenues forecast in TAM revenues, consistent with past TAM filings. Second, I recommended that Fly Ash Sales also be considered in the Other Revenues calculation.

Q. HOW DID PACIFICORP RESPOND?

A. Prior to Opening Testimony, AWEC requested copies of a contract with Seattle City Light ("SCL") for a portion of the output from the Stateline wind project. PacifiCorp, however, withheld the contract. AWEC also requested PacifiCorp perform an update to other revenues. PacifiCorp, however, refused to perform the analysis. Nevertheless, in its Reply Testimony, PacifiCorp stated that the Stateline contract has been terminated and that it should have reflected this in its Opening Testimony.[19/] This change increased Oregon-allocated NPC by $2,986,282.[20/]

Q. WHAT DO YOU RECOMMEND REGARDING THE STATELINE CONTRACT?

A. Since PacifiCorp did not include expiration of the Stateline contract in its initial application and was not forthcoming in providing that information in discovery prior to Opening Testimony, it would be reasonable for the Commission to exclude the costs associated with the expiration of the SCL Stateline contract from NPC in this proceeding. My recommendation, however, includes the costs associated with the expiration in the Other Revenue adjustment, despite these discovery shortcomings. My hope is that PacifiCorp will be more forthcoming on issues such as this in future proceedings.

Q. DO YOU CONTINUE TO RECOMMEND INCLUDING FLY-ASH SALES IN THE FORECAST OF OTHER REVENUES?

A. Yes. Fly ash sales are directly tied to the production at PacifiCorp's coal plants. Accordingly, I recommend that they also be considered in the Other Revenue forecast. From the revenue included in PacifiCorp's recent FERC Form 1, it appears the demand and prices for fly ash have increased since base rates were set in Docket No. UE 374. In the first quarter of 2021, for example, PacifiCorp made fly ash sales of $3,445,036, or $13,780,144 on an annualized basis. This amount is significantly higher than the $4,256,000 included in base rates in Docket No. UE 374. AWEC's recommendation is to use fly ash sales from the prior calendar year in the

19/ PAC/400, Staples/93:4-5
20/ Id. at 93:8-9.

TAM forecast. In this filing, AWEC is only proposing to include $6,504,276 in fly ash revenues based on the sales made in 2020. The higher sales recognized in 2021, however, will roll into the forecast in the 2023 TAM filing, if AWEC's recommendation is adopted.

Q. DO YOU AGREE WITH PACIFICORP THAT INCLUSION OF FLY ASH REVENUES IN THE TAM SHOULD BE MADE IN A GENERAL RATE CASE?

A. No. As PacifiCorp notes, the Commission has already included a provision for other revenues in the TAM, including items that are directly related to net power costs. Fly ash is a direct byproduct of burning coal and therefore directly related to fuel costs at coal fired power plants. The cost of coal is a net power cost. Therefore, fly ash is directly related to net power costs.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. The effect of this recommendations is a $929,973 reduction to Oregon-allocated TAM revenues.

VI. CONSUMER OPT-OUT CHARGE

Q. WHAT ISSUE DID CALPINE IDENTIFY WITH RESPECT TO THE CONSUMER OPT-OUT CHARGE?

A. The Consumer Opt-Out Charge is a component of the costs a long-term direct access customer must pay to depart PacifiCorp's system. In addition to the Opt-Out Charge, long-term direct access customers must also pay a transition adjustment. The two charges function in tandem. In basic terms, the Opt-Out Charge is meant to recover stranded capital costs, whereas the transition adjustment charge is meant to recover stranded energy costs. The transition adjustment is calculated over the initial five-year period and the Opt-Out Charge is calculated from years six through 10, though it is recovered in the initial five-year period.

In this Docket, Calpine witness Higgins identified that PacifiCorp has imposed an artificial constraint when calculating the Opt-Out Charge, restricting the charge from being a negative value. Calpine recommends that the Opt-Out Charge be calculated as it was intended, including the possibility of negative values.

Q. HOW DID PACIFICORP RESPOND TO CALPINE'S RECOMMENDATION?

A. PacifiCorp opposes allowing the Consumer Opt-Out Charge to go negative. PacifiCorp claims that a negative opt-out charge will result in cost-shifting to other customers; however, the utility offers no evidence to support this claim.[21/]

Q. WHAT DOES IT MEAN THAT THE OPT-OUT CHARGE IS NEGATIVE?

A. The Opt-Out Charge represents the stranded capital costs associated with a departing customer. Accordingly, a negative Opt-Out Charge means that there are capital cost *benefits* associated with a customer permanently opting out of cost-of-service rates. That is, PacifiCorp avoids acquiring new resources, the cost of which exceed the embedded cost of resources that are stranded as a result of a customer departing, meaning that cost-of-service customers pay lower rates if a customer transitions to direct access. Given the pending closure of several major power plants, a negative opt-out charge is not a surprising result.

Q. DOES A NEGATIVE OPT-OUT CHARGE MEAN THAT PACIFICORP MUST PAY CUSTOMERS TO LEAVE?

A. No. A negative opt-out charge only means that there is a capital cost benefit associated with departing customers. A departing customer is still required to pay the stranded energy costs through the transition adjustment when departing. In this case, the negative opt-out charges are still much less than the transition adjustment, meaning customers must still pay a significant charge to depart PacifiCorp's system.

[21/] PAC/900, Meredith/4:14-5:20.

Q. IS A NEGATIVE OPT-OUT CHARGE CONSISTENT WITH THE COMMISSION'S DIRECT ACCESS RULES?

A. Yes. In fact, the possibility of a negative opt-out charge appears to be required by these rules, which state that "each Oregon retail electricity consumer of an electric company *will receive a transition credit* or pay a transition charge equal to 100 percent of the net value of the Oregon share of all economic utility investments and all uneconomic utility investments of the electric company …."[22/]

Q. ARE THERE INSTANCES WHERE CUSTOMERS HAVE BEEN PAID TO DEPART A UTILITY'S SYSTEM?

A. Yes. As shown in Exhibit AWEC/205, in 2008 Portland General Electric had a transition adjustment credit, and thus, paid customers to depart cost of service rates.

Q. SHOULD THE COMMISSION DEFER THE QUESTION OF WHETHER THE CONSUMER OPT-OUT CHARGE SHOULD BE ALLOWED TO GO NEGATIVE TO DOCKET NO. UM 2024, ITS DIRECT ACCESS INVESTIGATION?

A. No. Unlike the issues in Docket No. UM 2024, the question of whether the Consumer Opt-Out Charge should be negative is not a policy issue, it is simply a matter of applying the math and the Commission's rules to a PacifiCorp-specific charge that has existed since 2015. Certainly the question of whether the Consumer Opt-Out Charge should exist at all is one squarely within the scope of Docket No. UM 2024, but until that docket is resolved, the Consumer Opt-Out Charge is a component of the construct that exists today, and it should be implemented in a fair and consistent manner.

Q. WHAT DO YOU RECOMMEND?

A. I join Calpine in recommending the Commission reject PacifiCorp's proposal to modify the Consumer Opt-Out charge by restricting negative values.

[22/] OAR 860-038-0160(1) (emphasis added).

Q. DOES THIS CONCLUDE YOUR OPENING TESTIMONY?

A. Yes.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 390

In the Matter of	)
	)
PacifiCorp, dba Pacific Power,	)
	)
2022 Transition Adjustment Mechanism.	)
	)

EXHIBIT AWEC/201

AWEC ALTERNATE ANALYSIS

(REDACTED VERSION)

Exhibit AWEC/201 contains Protected Information Subject to the General Protective Order in this proceeding and has been redacted in its entirety.

REVISED 8/26/2021

BEFORE THE

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In the Matter of	)
	)
PacifiCorp, dba Pacific Power,	)
	)
2022 Transition Adjustment Mechanism.	)
	)

EXHIBIT AWEC/202

COMPARISON OF GRID MODEL SALES TO HISTORICAL ACTUAL SALES, INCLUDING DETAIL OF BOOKED-OUT TRANSACTIONS

(REDACTED VERSION)

REVISED 8/26/2021

Historical Market Cap Analysis

	Actaual NPC Sales Adj. For Book-Outs					Average	PacifiCorp Proposed Mkt Caps			Commission Approved Mkt Caps		
	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2016-2020	GRID	Δ to Avg.	%	GRID	Δ to Avg.	%
MWh Excl. Bookouts	6,018,797	6,651,663	7,765,501	4,947,298	4,885,911	6,053,834	4,612,503	(1,441,331)	-24%	5,700,017	(353,818)	-6%
Bookout MWh*	6,130,887	6,967,136	8,968,222	8,044,824	4,947,283	7,011,670	2,920,048	(4,091,622)	-58%	3,238,049	(3,773,621)	-54%
MWh Incl. Bookouts	12,149,684	13,618,799	16,733,723	12,992,122	9,833,194	13,065,505	7,532,551	(5,532,954)	-42%	8,938,066	(4,127,439)	-32%
Rev $ Excl. Bookouts	148,084,741	189,651,228	224,869,978	168,712,218	173,806,881	181,025,009	194,549,233	13,524,224	7%	248,354,153	67,329,144	37%
Bookout Rev. $*	141,563,258	176,562,582	239,685,688	215,933,990	135,193,456	181,787,795	120,035,515	(61,752,280)	-34%	132,558,404	(49,229,390)	-27%
Rev. $ Incl. Bookouts	289,647,999	366,213,810	464,555,666	384,646,208	309,000,337	362,812,804	314,584,748	(48,228,056)	-13%	380,912,558	18,099,754	5%

	Avg. Mkt Caps	Max Avg. Mkt Caps
GRID MWH	4,612,503	5,700,017
DART MWH	1,825,648	2,143,649
PSCo Exchange MWh	[redacted]	[redacted]
Total MWH		

GRID $	194,549,233	248,354,153
DART$	61,986,990	74,509,880
PSCO Exchange	[redacted]	[redacted]
Total $		

* From FERC Form 1

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 390

In the Matter of	)
	)
PacifiCorp, dba Pacific Power,	)
	)
2022 Transition Adjustment Mechanism.	)
	)

EXHIBIT AWEC/203

REVISED BCC MATERIALS AND SUPPLIES EXPENSE ANALYSIS

(REDACTED VERSION)

Exhibit AWEC/203 contains Protected Information Subject to the General Protective Order in this proceeding and has been redacted in its entirety.

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

UE 390

In the Matter of	)
	)
PacifiCorp, dba Pacific Power,	)
	)
2022 Transition Adjustment Mechanism.	)
	)

EXHIBIT AWEC/204

REVISED OTHER REVENUE ADJUSTMENT, INCLUDING COAL ASH SALES

Other Revenues - Stand Alone TAM Adjustment

Line no		Total Company UE-374 Final	Total Company CY 2022 Initial	Factor	Factors UE-374	Factors CY 2022	Oregon Allocated UE-307 Final	Oregon Allocated CY 2022 Initial
1	OTHER REVENUES	(10,024,343)	-	SG	26.023%	26.482%	(2,608,598)	-
2	FLY ASH SALES	(4,256,000)	(6,504,276)	SG	26.023%	26.482%	(1,127,056)	(1,722,435)
3							-	
4	Total Other Revenue	(14,280,343)	(6,504,276)				(3,735,654)	(1,722,435)
5								
6			Decrease (Increase) in Other Revenues Absent Load Change					2,013,219
7								
8			Baseline Other Revenues in Rates				(3,735,654)	
9			$ Change due to load variance from UE 374 forecast				(43,090)	
10			Other Revenues in Rates using updated load forecast				(3,778,744)	
11								
12			**Decrease (Increase) in Other Revenues Including Load Change**					**2,056,309**
			Pac Proposed					2,986,282
			Adjustment					(929,973)

BEFORE THE

PUBLIC UTILITY COMMISSION OF OREGON

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In the Matter of	)
	)
PacifiCorp, dba Pacific Power,	)
	)
2022 Transition Adjustment Mechanism	)
	)

EXHIBIT AWEC/205

PORTLAND GENERAL ELECTRIC COMPANY NEGATIVE OPT-OUT CHARGES FROM 2008

SCHEDULE 129 (Continued)

TRANSITION COST ADJUSTMENT (Continued)
Three Year Opt-Out

This option was not available during Enrollment Periods A and B.

For Enrollment Period C (2004): No longer applicable

For Enrollment Period D (2005), No Longer Applicable **(C)**
(D)

For Enrollment Period E (2006); No Longer Applicable **(C)**

For Enrollment Period F (2007); No Longer Applicable **(C)**

For Enrollment Period G (2008), the Transition Cost Adjustment will be:

(1.043) ¢ per kWh	January 1, 2009 through December 31, 2009
(0.994) ¢ per kWh	January 1, 2010 through December 31, 2010
(0.720) ¢ per kWh	January 1, 2011 through December 31, 2011

For Enrollment Period H (2009), the Transition Cost Adjustment will be:

0.673 ¢ per kWh	January 1, 2010 through December 31, 2010
0.415 ¢ per kWh	January 1, 2011 through December 31, 2011
0.473 ¢ per kWh	January 1, 2012 through December 31, 2012