

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**In the Matter of the Investigation of
AVISTA CORPORATION d/b/a AVISTA
UTILITIES, PUGET SOUND ENERGY,
and PACIFIC POWER & LIGHT
COMPANY
Regarding Prudency of Outage and
Replacement Power Costs**

DOCKET UE-190822

**SECOND EXHIBIT (NONCONFIDENTIAL) TO THE
PREFILED REBUTTAL TESTIMONY OF**

PAUL K. WETHERBEE

ON BEHALF OF PUGET SOUND ENERGY

JANUARY 23, 2020

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

**Docket UE-190324
Puget Sound Energy
Power Cost Adjustment Mechanism Annual Report**

WUTC STAFF INFORMAL DATA REQUEST NO. 001:

Background Section for Data Request No. 1, Subparts A through E:

In the prefiled direct testimony of Puget Sound Energy's ("PSE") witness, Mr. Paul K. Wetherbee, he states that, "[t]otal Colstrip generation for the year was higher than generation included in rates, but the plant experienced lower output during July and August. Lower generation during these months coincided with particularly high market energy prices, contributing to the estimated \$12 million power cost increase attributed to Colstrip during PCA Period 17. See Exh. PKW-3 for daily settlement market power and gas prices for July and August."¹

SUBPART A: Please provide all documents, email, correspondence, analyses, reports, work papers, and/or other information Mr. Wetherbee relied on to arrive at his \$12 million estimate of the impact of the outage and derate of Colstrip Units 3 and 4 in 2018 ("Unit 3 & 4 Outage and Derate"). As part of this response, explain how Mr. Wetherbee's prefiled Exhibit No. PKW-3 was used to arrive at this estimate.

SUBPART B: In his prefiled direct testimony, Mr. Roberts says that costs related to the investigation into the Unit 3 & 4 Outage and Derate totaled approximately \$3.0 million.²

- Explain how Mr. Roberts arrived at the estimate of \$3.0 million above.
- Provide an itemized list (including dollar amounts) for any capital additions and transfers to plant, O&M, and transmission expense attributable to the Unit 3 & 4 Outage and Derate.
- For O&M and transmission expense related to Unit 3 & 4 Outage and Derate, specify whether these amounts flowed through the PCA bands during the 2018 deferral period or whether the Company will seek recovery of these expenses in its 2019 general rate case.

SUBPART C: For any money spent on capital additions and transfers to plant related to the Unit 3 & 4 Outage and Derate, specify and itemize the amounts that PSE will seek recovery for in its 2019 general rate case.

¹ UE-190234, Exh. PKW-1CT, 15:3-9.

² UE-190324, Exh. RJR-1T, 6:12-13.

PSE's First Revised Response to WUTC Staff Informal Data Request No. 001

Date of Response: September 3, 2019

Person who Prepared the Response: Nancy Atwood, Janet Phelps, Brennan Mueller

Witness Knowledgeable About the Response: Ron J. Roberts, Paul K. Wetherbee

SUBPART D: List any and all insurance, manufacturer, warranty, legal, or any other claims (including dollar amounts claimed or asserted) either made or anticipated to be made by PSE to recover costs related to the Unit 3 & 4 Outage and Derate.

SUBPART E: Mr. Wetherbee says that in calendar year 2018 (PCA Period 17), Colstrip generation was higher than generation included in rates. Provide the amount of Colstrip generation for Units 1, 2, 3 and 4 (MWh by month and unit) included in rates versus actual generation for Units 1, 2, 3 and 4 (MWh by month and unit).

First Revised Response:

Background for Revised PSE response:

In the process of preparing and validating data for PSE's Response to WUTC Staff Informal Data Request No. 022, PSE discovered an error in the monthly net Colstrip generation values provided in the workpaper *PKW-WP C PCA 17 variance analysis (C)*. This workpaper was used to calculate values presented in the Prefiled Direct Testimony of Paul K. Wetherbee and relied upon for PSE's responses to SUBPART A and SUBPART E of WUTC Staff Informal Data Request No. 001. A revised version of *PKW-WP C PCA 17 variance analysis (C)* is being provided herewith in PSE's revised response to WUTC Staff Informal Data Request No. 005. Revisions to PSE's response to SUBPART A and SUBPART E of this request are incorporated below.

SUBPART A

Please see the workpaper entitled, *PKW-WP C PCA 17 REVISED variance analysis.xlsx*, tab *variance analysis (C)*, which is provided in PSE's Revised Response to WUTC Staff Data Request No. 005, for details regarding the \$17.9 million estimate of the impact of Colstrip cost and generation variances relative to the amount included in rates in 2018. The estimated \$17.9 million variance for calendar year 2018 for all Colstrip units is on lines 198 and 199, column P. The estimated power cost impact related to Colstrip Units 3 and 4 for the months of July and August, when prices were at their highest, was partially offset by benefits during other months of the year.

Two components make up the estimated power cost variance. The first is the change in fixed and variable costs between actuals and the level included in PSE's 2017 General Rate Case (2017 GRC). The second is the change in generation between actuals and the 2017 GRC forecast. We will refer to these as cost variance and generation variance in the following explanations:

The cost variance includes, but is not limited to, the difference in cost for coal and gas to produce electricity, fixed costs associated with running these assets, changes in fixed rates for purchase power agreements year over year, etc. The generation variance is

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an attempt to place a dollar value on the difference between the amount of power generated, delivered, or purchased and the volume forecasted in the 2017 GRC.

The cost variance is simply the difference between actual costs incurred and the costs included in the 2017 GRC. The Colstrip cost variance is found on lines 66 through 70 of the above-referenced workpaper and the results for the year are presented in Table 1 below.

Table 1: Cost Variance

Power Costs Higher / (Lower) than GRC (x1000)	
	Cost Variance
Colstrip 1&2	\$8,685
Colstrip 3&4	(\$2,108)
Total	\$6,578

The total cost variance is a positive number, which indicates that actual Colstrip fuel costs were higher than the amount included in rates. Higher Colstrip Units 1 and 2 fuel cost is due to higher actual generation, and therefore higher fuel consumption, relative to the 2017 GRC forecast. Colstrip generation variances relative to the 2017 GRC forecast are found on lines 32 and 33 of the above-referenced workpaper.

The generation variance is an estimate of the value of the difference in generation for each resource. This portion of the variance analysis assigns the dollar variance in market purchases and sales to the generating resources. The total variance in market purchases and sales was \$70.9 million, as shown on rows 101 and 137 of the above-referenced workpaper. A forecast cannot capture actual generation because generation will differ based on decisions made during actual operations. Dispatch logic may be different based on unexpected outages, power and gas prices, and the relation between them known as market heat rate. Hydro, wind, and load forecasts will be different based on economic and climate variables such as temperature, customer growth and energy usage, water conditions, and wind.

To estimate the effect on power costs, the change in generation of each resource is multiplied by the MidC flat power price for each month. The monthly prices used in the variance analysis include the average of the prices in Exh. PKW-3 for the months of July and August. This provides much of the explanation for the change in market purchases and sales, but since this is a monthly rate and prices change continually, the remaining variance in market purchases and sales is allocated across all energy sources.

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In the case of Colstrip, the generation variance based on MidC flat prices is found on lines 120 and 121 of the above-referenced workpaper, and the total generation variance – including the excess market purchase and sales value allocated to Colstrip – can be found on lines 132 and 133. The total variance is summarized in Table 2 below.

Table 2: Total Variance			
Power Costs Higher / (Lower) than GRC (x1000)			
	Cost Variance	Generation Variance	Total
Colstrip 1&2	\$8,685	(\$7,652)	\$1,034
Colstrip 3&4	(\$2,108)	\$18,967	\$16,859
Total	\$6,578	\$11,315	\$17,893

Note: Colstrip cost variances from Table 1 are summarized in Table 2.

Actual and rate case prices used in this analysis are located at the top of the MS Excel spreadsheet in the above-referenced workpaper.

SUBPART B

Mr. Roberts reached the \$3 million estimated cost based on information provided to PSE by Talen MT, who operates the facility on behalf of the co-owners. As discussed in Mr. Roberts’s prefiled testimony, the 2018 MATS PM situation was unanticipated. The plant had consistently met the compliance obligation since the testing requirement went into effect and there was no trend to indicate elevated PM levels. Like with an unplanned mechanical failure, it can take time to troubleshoot the problem and determine a course of action to resolve it. Given the complexity of the interconnected systems at Colstrip, many factors had to be investigated, in turn, to find areas of potential cause and identify appropriate solutions. This was a cumulative process rather than a single-factor situation. It was not possible to anticipate how long the outage would extend until solutions were put into action and tested.

Below please find an updated table that includes total costs (across all owners) expended per category to address the MATS PM compliance issue in 2018. The increase from the initial estimate of approximately \$3 million to \$3.38 million is due to the inclusion of internal labor, which is provided in this calculation but was not in the previous estimate. PSE’s share of the costs is 25 percent. The costs for the resolution of the MATS PM issue was less than 2.9% of the total Colstrip Units 3 and 4 budget. Additionally, the facility completed 2018 below budget projections for both base O&M and capital.

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MATS PM costs	
Event Q3 2018	
Work Type	Amount
O&M	
Boiler Cleaning & Inspection	\$917,712.52
Boiler Tuning	\$63,430.83
Instrumentation Monitoring	\$13,559.21
Testing	\$551,812.12
Wallblower	\$78,270.42
Various Materials (Valves, screens, etc)	\$67,612.21
Total	\$1,692,397.31
Capital	
Distribution Plates	\$850,081.40
Installation of Distribution Plates	\$346,695.51
Design/Engineering Distribution Plates	\$113,236.00
Total	\$1,310,013.34
Internal Labor	\$380,000.00
Grand Total	\$3,382,410.65

All the above costs related to the outage are fixed costs, and as such, are not included in the PCA mechanism pursuant to the settlement agreement approved in Docket UE-130617. Because only variable cost differences flow through the PCA bands, these fixed costs did not impact the 2018 deferrals, which are the subject of this proceeding.

Regarding whether these costs will be incorporated into PSE's 2019 general rate case, since these costs were incurred during the GRC historical test year they would be included with the Colstrip production O&M figures that would be included in the case. Since the overall production O&M figures for Colstrip were in line with the budget and historical costs, the historical costs would be a reasonable representation of costs in the rate year. As such, PSE would not propose an adjustment in the 2019 GRC.

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SUBPART C

PSE's prorata share of the capital costs identified in subpart B will be incorporated into the 2019 rate base figures as these investments were placed in service during the historical test year and are used and useful in providing service to customers.

SUBPART D

PSE is not the plant operator so would not be the entity that would pursue insurance, manufacturer, warranty, legal, or any other claims related to the 2018 MATS PM issue. Talen MT, as the operator of the plant, would make those claims. However, in this case no claims are anticipated because preliminary investigation does not show a failure of equipment.

SUBPART E

Please see the workpaper entitled, *PKW-WP C PCA 17 REVISED variance analysis.xlsx*, tab *actuals vs rates (C)*, lines 44 and 45, for Colstrip actual generation, Colstrip generation in rates from PSE's 2017 GRC, and the difference between the two. This revised workpaper is provided in PSE's Revised Response to WUTC Staff Data Request No. 005. The accounting process combines energy output from Units 1 and 2 together and Units 3 and 4 together, so energy for the individual units is not available.

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Exh. PKW-7

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