CONFIDENTIAL PER PROTECTIVE ORDER IN UTC DOCKET UE-152253

Exhibit No. DR-1CT
Docket UE-152253
Witness: Dana Ralston

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PACIFIC POWER & LIGHT COMPANY, Respondent.	DOCKET UE-152253

PACIFIC POWER & LIGHT COMPANY

REDACTED REBUTTAL TESTIMONY OF DANA RALSTON

April 2016

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ATTACHED EXHIBITS

Q. Please state your name, business address, and present position with PacifiCorp.

A. My name is Dana Ralston. My business address is 1407 West North Temple, Suite 210, Salt Lake City, Utah 84116. I am employed as the Vice President of Coal Generation and Mining. I am testifying on behalf of Pacific Power & Light Company (Pacific Power or the Company), a division of PacifiCorp.

QUALIFICATIONS

Q. Briefly describe your education and professional experience.

A. I have a Bachelor of Science Degree in Electrical Engineering from South Dakota State University. I have been the Vice President of Coal Generation and Mining for the Company since March 2015. I was the Vice President Before that, I held a number of positions of increasing responsibility within Berkshire Hathaway Energy's generation organization, including the plant manager position at the Neal Energy Center, a 1,600 megawatt generating complex. In my current role, I am responsible for operation and maintenance of PacifiCorp's coal-fueled generation fleet, coal fuel supply, and mining.

Q. Have you testified in previous regulatory proceedings?

A. Yes. I have filed testimony in proceedings before the public utility commissions in Washington, Oregon, Utah, and Wyoming.

PURPOSE OF TESTIMONY

Q. What is the purpose of your rebuttal testimony in this case?

A. My rebuttal testimony responds to the direct testimony filed by Staff of the Washington Utilities and Transportation Commission and the Sierra Club related to the prudence of the Company's decision to install selective catalytic reduction systems (SCRs) on Units 3 and 4 of the Jim Bridger plant. In particular, in my testimony, I do the following:

- Identify errors, omissions, and improper comparisons made by Staff witness Mr. Jeremy B. Twitchell and Sierra Club witness Dr. Jeremy I. Fisher in their direct testimonies;
- Rebut Sierra Club's contention that as a result of mine plan changes at Bridger Coal Company (BCC), coal costs in the SCR analysis increased substantially;
- Rebut Sierra Club's claim that capital expenditures would be the same in the SCR analysis and the 2015 Integrated Resource Plan (IRP) analysis; and
- Refute Sierra Club's contention that the Company willfully ignored changes at BCC that moved project economics beyond a cost-effective threshold.

SUMMARY OF TESTIMONY

Q. Please provide a summary of your testimony.

A. The SCR analysis that was used in the Certificate of Public Convenience and Necessity (CPCN) filings in Utah and Wyoming and that is the basis of the coal pricing in this filing is based on the January 2013 long-term fueling plan for the Jim Bridger plant. The Company's 2013 long-term fueling forecast for the Jim Bridger plant is not comparable to the BCC October 2013 mine plan. Unlike the October 2013 mine plan, the Jim Bridger plant's long-term fueling plan combines a BCC mine plan with third-party outside fuel sources to provide a comprehensive life-of-plant fueling forecast. In any event, the October 2013 mine plan did not suggest that coal costs were rapidly increasing, as Staff and Sierra Club assert. In fact, over the two-year period between the 2013 long-term fueling plan and the long-term fueling plan used in the 2015 IRP, the present value revenue requirement differential, or PVRR(d), for coal costs only increased by [redacted], instead of [redacted] as Sierra Club claims. This increase would not have materially impacted the SCR analysis even if it had been known in fall 2013. The conclusions and analyses contained in the direct testimony of Staff and the Sierra Club are invalid because they contain significant errors, omissions, and inappropriate comparisons.

MINE PLANS AND LONG-TERM FUELING FORECASTS

Q. Please describe the BCC October 2013 mine plan.

A. The October 2013 mine plan is the budget that BCC developed in 2013 for the PacifiCorp's 10-year business plan beginning in 2014. PacifiCorp prepares a 10-year plan each year, which is generally finalized and approved in December. The October 2013 mine plan was also used to develop coal costs in test periods for general rate cases. For example, the 2014 Utah general rate case and the initial filing in the 2014 Washington general rate case used the October 2013 mine plan as the basis to develop test-year coal costs.

Q. Has the Company ever relied on the October 2013 mine plan as a long-term fueling forecast for the Jim Bridger plant?

A. No. The Company has never relied on the October 2013 mine plan as a long-term fueling forecast for the Jim Bridger plant.

Q. Is the October 2013 mine plan the same mine plan used in the SCR analysis?

A. No. To develop comprehensive analysis related to the SCR investment, the Company relied on the cost information that was finalized in January 2013, which included an updated mine plan for BCC and updated long-term forecasts of third-party coal costs.

To avoid confusion, I refer to the January 2013 BCC mine plan and accompanying long-term fueling forecast that was used in the SCR analysis as the "SCR analysis" in my testimony. This SCR analysis is also referred to as the "2012 Analysis" in Staff's testimony and the "January 2013" plan by the Sierra Club.

In addition, it is important to be clear that BCC developed two mine plans in 2013, one in January 2013, which the Company used in the SCR analysis and generally referred to as the "2013 mine plan," and a second mine plan in October 2013, described above. When referring to the October 2013 mine plan, Staff refers to it as the "2013 Mine Plan," which is a different naming convention than the Company used in its SCR analysis and in this case.[1]

Q. Did Staff attempt to compare prices used in the October 2013 BCC mine plan to projections used in the SCR analysis?

A. Yes. Staff states that it compared Jim Bridger plant cash costs in the SCR analysis to the Jim Bridger plant costs updated for BCC coal costs in October 2013. Staff claims that for the period from 2016 through 2030, coal costs increase by [redacted] percent and therefore PacifiCorp should have updated the SCR analysis to reflect these updated cost projections.[2]

Q. Is Staff's comparative analysis of Jim Bridger plant's cash cost analysis accurate?

A. No. Staff's analysis contains four significant errors relating to coal costs that undermine the integrity of its analysis and render its conclusions and analysis invalid.

[1] *See e.g.*, Twitchell, Exh. No. JBT-1CT 29:1-2.
[2] Twitchell, Exh. No. JBT-1CT 34:10-14.

Q. Please summarize the significant errors contained in Staff's analysis.

A. First, as shown in Exhibit No. JBT-5C, Staff did not recognize the differences in BCC capital between the SCR analysis and the October 2013 mine plan. In other words, Staff ignored the capital costs that were properly included in the SCR analysis.

Second, Staff attempted to compare the Jim Bridger *plant* costs from the SCR analysis to only the BCC *mine* costs which were included in the October 2013 mine plan, while excluding third-party mine costs.

Third, Staff attempted to compare the *operating* costs included in the BCC October 2013 mine plan to the *cash* costs included in the SCR analysis. Operating costs include non-cash costs and cash costs of coal delivered to the Jim Bridger plant.

Fourth, Staff performed its calculations of coal adjustments using the same vintage forecast as in the SCR analysis. Therefore, Staff actually compared the operating costs to the cash costs from within the same analysis.

Mr. Link's testimony further addresses Staff's erroneous comparison of cash and non-cash costs and Staff's computational errors.

Q. Staff alleges that the Company's response to WUTC Data Request 11 was "both inaccurate and misleading" because the Company confirmed that its SCR analysis incorporated the cost increases reported in BCC's 2013 mine plan.[3] Please respond.

A. The Company accurately responded that Exhibit No. RTL-1CT and Exhibit No. RTL-3C reflect the cost increases in BCC's 2013 mine plan. As explained above, the Company's SCR analysis relied on the January 2013 mine plan and long-term fueling forecast. Staff's allegation appears to be based on a misunderstanding that *two* mine

[3] Twitchell, Exh. No. JBT-1CT 33:14-34:6.

plans were prepared in 2013—the January 2013 mine plan that was included in the comprehensive fueling forecast for the Jim Bridger plant and the October 2013 mine plan.

Q. Did other intervenors in this proceeding use the BCC October 2013 mine plan as a proxy for information provided in the SCR analysis?

A. No. The Sierra Club recognized the October 2013 mine plan "does not provide an all-in cost of coal at Jim Bridger plant"[4] and therefore compared costs contained in the 2015 IRP to the SCR analysis. I will address the flaws in Sierra Club's analysis below, but this is an implicit repudiation of Staff's analytic framework.

Q. Is it reasonable for Staff to compare the coal prices in the October 2013 mine plan to the coal prices used in the Company's SCR analysis?

A. No. The Company's current filing relies on the long-term fueling forecast for the Jim Bridger plant that was developed in January 2013. The Company used this January 2013 fueling forecast to update its PVRR(d) analysis in its CPCN cases in Utah and Wyoming, and this forecast represented the most up-to-date long-term fuel forecast available for the Jim Bridger plant when the Company provided its full notice to proceed to the contractor in December 2013.

Unlike the January 2013 fueling forecast, the October 2013 BCC mine plan (or budget) is not a long-term fueling forecast for the Jim Bridger plant. Forecasting and budgeting terms are often used interchangeably but are dissimilar. Forecasts attempt to predict what will happen in the future. Budgeting or planning is directly linked to implementation and execution of a plan to achieve desired results. To

[4] Fisher, Exh. No. JIF-1CT 17:18-19.

combine the two is inappropriate. Staff's comparison of the January 2013 long-term fueling forecast to the October 2013 budget is not an appropriate or valid comparison.

Q. Why is the October 2013 mine plan not a long-term fueling forecast for the Jim Bridger plant?

A. The October 2013 mine plan only reflects the cost of coal produced by BCC, which is one of two mining operations that currently provide fuel to the Jim Bridger plant. To develop a long-term fueling forecast for Jim Bridger plant, the Company would need to develop third-party fuel pricing and sourcing assumptions, coal transportation costs, and plant operating and capital costs for the plant's life. These costs are combined with BCC operating costs to finalize a long-term fueling forecast. The absence of long-term capital costs and third-party coal costs should have been clear indicators that the October 2013 mine plan was not intended to be a long-term fueling forecast for the plant.

Q. Was there evidence of a major increase in coal costs in fall 2013 as alleged by Staff?

A. No. Exhibit No. DR-4C demonstrates that there was only a [redacted] percent increase in coal costs in the two-year period between the long-term fueling plans used in the SCR analysis in January 2013 and used in the 2015 IRP. There was no evidence in fall 2013 of the [redacted] percent long-term price spike that Staff alleges. A one or two percent fluctuation in long-term coal costs during the relevant periods is not material enough to have caused the Company to modify its decision to move forward with the SCR system installations.

Q. Do you agree with Sierra Club's contention that the BCC October 2013 mine plan represented a change in fueling strategy for the Jim Bridger plant due to the changing relationship between the surface and underground operations at BCC?[5]

A. Yes. There is no doubt that the October 2013 mine plan reflects changes in the relationship between the surface and underground mining operations at BCC. Both the October 2013 mine plan and the mine plan that was used to develop the long-term fueling forecast for the 2015 IRP assume surface operations continue through the plant's life and that the underground mine is projected to shutter upon depletion of existing permitted reserves. But, as noted, that change did not translate into materially different long-term coal costs for the Jim Bridger plant.

Q. Does the change in the BCC mine plan between the SCR analysis and the 2015 IRP significantly impact Jim Bridger plant costs?

A. No. Contrary to the Sierra Club's assertion that Jim Bridger plant fueling costs increased by [redacted],[6] plant fueling costs only increased by [redacted] as shown in Exhibit No. DR-2C. Sierra Club omits the capital savings associated with shuttering the underground mine earlier in the 2015 IRP than assumed in the SCR analysis. The net present value reduction associated with BCC reduced capital expenditures is [redacted]. Confidential Figure 1 compares Jim Bridger plant cash costs for the SCR analysis to the 2015 IRP, expressed on a cost-per-mmBtu basis including BCC future capital expenditures.

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[5] Fisher, Exh. No. JIF-1CT 16:10-22.
[6] Fisher, Exh. No. JIF-1CT 24:19.

Confidential Figure 1 – Jim Bridger Plant Cash Cost

[redacted]

By excluding future capital cash costs from its analysis, Sierra Club distorts the analysis to significantly overstate the impact of the mine plan change at BCC.

Q. How frequently does the Company prepare long-term fueling plans for the Jim Bridger plant?

A. Generally, the Company prepares long-term fueling plans approximately every two years as part of its IRP process. Preparing a long-term fueling plan typically takes several months and involves many models and iterations. Between January 2013 and November 2014, the Company did not prepare a new long-term fueling forecast for the Jim Bridger plant because no significant cost events occurred that would lead it to believe a material change would result.

Q. Is it appropriate for Sierra Club to compare the 2015 IRP to the SCR analysis developed in 2013?

A. No. First and foremost, Sierra Club's reliance on the 2015 IRP constitutes hindsight review, which I understand is not permissible as part of a prudence determination.[7] The Jim Bridger fueling forecast included in the 2015 IRP was finalized in November 2014 and used the July 2014 BCC mine plan. Contrary to Sierra Club's assumption, the Company could not have developed the 2015 IRP forecast in fall 2013. Information contained in the 2015 IRP was not available to the Company before December 1, 2013, when the full notice to proceed was issued to the SCR contractor.

Q. Please review Sierra Club's calculations comparing the 2015 IRP to the SCR analysis.

A. Sierra Club compared Jim Bridger plant cash costs (excluding the mine capital costs) contained in the SCR analysis to cash costs (excluding mine capital costs) in the 2015 IRP. The plant-consumed mmBtu volumes were not changed between the plans. Sierra Club concluded that fuel costs would have increased by [redacted] on a net present basis for the period 2014 through 2030.[8] Sierra Club's comparison is unreasonable because it fails to recognize the capital cost changes between the SCR analysis and the 2015 IRP. If capital costs are included, the differential is substantially smaller.

Q. Did Sierra Club make adjustments to the two-unit option contained in the SCR differential analysis?

A. Yes. The Company did not prepare an updated two-unit operation option in October 2013 because the Company did not develop an updated long-term fueling forecast. Sierra Club instead substituted the plant cash cost (excluding mine capital costs) in the four-unit SCR analysis with the two-unit cash cost in the two-unit option. Sierra

[7] *See e.g., Wash. Utils & Transp. Comm'n v. Puget Sound Power & Light Co.*, Cause No. U-83-54, Fourth Suppl. Order (Sept. 1984) ("It is generally conceded that one cannot use the advantage of hindsight.").
[8] Fisher, Exh. No. JIF-1CT 20:14-21.

Club concluded that fuel costs would have increased by [redacted] on a net present basis for the period 2014 through 2030 in the two-unit option.[9] This is not a valid assumption, however, because the two-unit operation and four-unit operation are not comparable plans.

Q. Does the Company agree with Sierra Club's suggestion that the Company should have been able to update the long-term forecast in late 2013 because third-party coal costs from the Powder River Basis (PRB) are easily forecast?[10]

A. No. Although the Company agrees with Sierra Club that PRB coal is a liquid commodity, the October 2013 budget did not assume any coal sourced from the PRB. Because third-party coal was not sourced from the PRB, the ability to forecast PRB prices was not relevant to the October 2013 business plan.

Q. Please summarize Sierra Club's proposed net adjustment relative to Jim Bridger plant coal fueling costs.

A. Sierra Club asserts that coal costs would have increased by [redacted] relative to the SCR analysis if the Company had the same knowledge in 2013 as in November 2014 when it finalized the fueling portion figures contained in the 2015 IRP.[11] This conclusion is incorrect because the basis for the 2015 IRP costs was not known or capable of being known in fall 2013. Even if the 2015 IRP analysis is substituted for the SCR analysis, however, the result does not change—installation of the Bridger SCRs remains economic.

[9] Fisher, Exh. No. JIF-1CT 20:22-21:19.
[10] Fisher, Exh. No. JIF-1CT 20:3-13.
[11] Fisher, Exh. No. JIF-1CT 24:13-23.

Q. In addition to pursuing this incorrect approach, is Sierra Club also relying on inaccurate calculations?

A. Yes. Sierra Club made two significant errors that dramatically overstated the perceived net present value increase between the plans.

Q. Please describe the significant errors made in Sierra Club's analysis.

A. First, Sierra Club simply ignores the mine capital expenditures that were included in the Company's analysis.[12] By ignoring the capital cost differential in Jim Bridger plant fueling forecasts between the SCR analysis and 2015 IRP analysis, Sierra Club vastly over-estimates the long-term changes in coal costs for the Jim Bridger plant.

Second, relative to the two-unit adjustment, the Company submits that it is more reasonable to use a comparative ratio between the SCR and the 2015 IRP analyses, which are both four-unit scenarios, than to replace costs in a two-unit scenario with a four-unit scenario. This would increase costs in the two-unit scenario from the [redacted] calculated by Sierra Club to [redacted].

Q. Please quantify the impact of the errors made by Sierra Club.

A. Sierra Club claims the cost of installing SCRs from the period of 2014 through 2030 would increase by [redacted] due to coal cost changes.[13] This is the differential between Sierra Club's SCR four-unit ([redacted]) and two-unit revised estimates ([redacted]). The Company has properly adjusted Sierra Club's costs to include the capital differential between the SCR analysis and 2015 IRP analysis by increasing coal costs in the two-unit plan by the same percentage change calculated between the SCR analysis and 2015 IRP analysis. This results in an overall increase of only

[12] Fisher, Exh. No. JIF-1CT 23:1-11.
[13] Fisher, Exh. No. JIF-1CT 24:13-23.

[redacted] associated with a Jim Bridger plant fueling PVRR of [redacted]. Please see Exhibit No. DR-2C and Exhibit No. DR-3C for details.

Q. Does the Company's 2015 IRP analysis capture the return on and return of future capital expenditures associated with the various alternative compliance options assessed?

A. Yes. The Company's 2015 IRP analysis is forward looking and captures the return on and of future capital expenditures required to support the various alternatives assessed.

Q. Does the Company agree with Sierra Club's assertion that capital would be the same in the SCR analysis and the 2015 IRP analysis?[14]

A. No. The difference in capital expenditures between the SCR analysis and the 2015 IRP analysis is [redacted] expressed on a PVRR(d) as shown in Exhibit DR-2C. This is a reduction of [redacted] percent relative to the SCR analysis.

Q. Sierra Club claims that if the Company had used the 2015 IRP costs in its PVRR(d) analysis, instead of the costs from the January 2013 long-term fueling forecast, then the Bridger SCRs would have been non-economic.[15] Is this correct?

A. No. Although I disagree that it is reasonable to use the 2015 IRP as the basis for calculating coal costs in fall 2013, even if the Company had relied on the 2015 IRP forecast, there is no material change in coal costs for the Jim Bridger plant. In fact, the all-in or all-sources coal cost from the 2015 IRP is only [redacted] higher than the coal cost from the January 2013 long-term fueling forecast. This modest increase

[14] Fisher, Exh. No. JIF-1CT 23:4-6.
[15] Fisher, Exh. No. JIF-1CT 24:14-23.

associated with a net present value total of [redacted] in cash costs would not have changed the substantial customer benefit of the Bridger SCRs. Exhibit No. DR-2C demonstrates that there was no dramatic spike in coal costs in fall 2013 that would have caused the Company to modify its decision to move forward with the Bridger SCRs.

OTHER ISSUES

Q. Sierra Club claims that BCC mine and Jim Bridger plant are inextricably tied to each other but operate independently.[16] Is this correct?

A. The Company agrees the mine and plant are inextricably tied to each other. The Company strongly disagrees the entities operate independently of each other. The mine is captive to the Jim Bridger plant, has daily communication with plant personnel to discuss fueling requirements, and the plant and the mine personnel report to me. BCC mine plans are developed after the Company develops annual Btu consumptions requirements. As discussed earlier in my testimony, BCC is currently one of two coal suppliers to the plant. BCC has been in operation since 1974 and is an important component of the overall fuel plan for the Jim Bridger plant.

Q. Sierra Club alleges that BCC costs are viewed as a fixed cost to the Jim Bridger plant and are not subject to economic reviews.[17] Is this correct?

A. Absolutely not. As evidenced by this filing, the Company clearly evaluates least-cost, risk-adjusted fueling forecasts for the Jim Bridger plant. Sierra Club's assertion that long-term fueling evaluations are not considered by the Company is inaccurate and misleading.

[16] Fisher, Exh. No. JIF-1CT 39:19-27.
[17] Fisher, Exh. No. JIF-1CT 41:1-12.

Q. Sierra Club claims that capital expenses at BCC are "simply incurred" and that a mechanism does not exist to determine if the combination of mine and plant fueling options are economically viable.[18] Is this correct?

A. Absolutely not. Long-term fueling forecasts provide an "all-in" present value revenue requirement evaluation that quantifies total costs projected to be paid by customers for each option if prudently incurred. The PVRR(d) quantifies the differential between each evaluation. Sierra Club's suggestion that a mechanism does not exist to evaluate fueling options or that costs are simply incurred without review is simply untrue.

CONCLUSION

Q. What is your recommendation to the Commission?

A. The Commission should disregard the adjustments by Staff and Sierra Club because both analyses are incorrect and, when corrected, result in a minimal change that does not affect the prudency evaluation of the Bridger SCRs. The information the Company used at the time of the full notice to proceed was the best and most current available.

Q. Does this conclude your rebuttal testimony?

A. Yes.

[18] Fisher, Exh. No. JIF-1CT 40:14-22.