BEFORE THE
Washington Utilities and Transportation Commission

In the Matter of PACIFIC POWER AND LIGHT COMPANY Petition For a Rate Increase Based on a Modified Commission Basis Report, Two-Year Rate Plan, and Decoupling Mechanism.	UE-152253

SIERRA CLUB'S INITIAL POST HEARING BRIEF

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Sierra Club recommends that the Washington Utilities and Transportation Commission ("Commission") rejects PacifiCorp's ("PacifiCorp" or the "Company") request to recover the full cost to install selective catalytic reduction ("SCR") controls on Jim Bridger Units 3 and 4.[1] The decision to install SCRs was imprudent based on the information that the Company knew, or should have known, at the time it committed to the projects.

I. INTRODUCTION

PacifiCorp made the wrong decision when it opted to spend hundreds of millions of dollars to extend its reliance on the old and dirty Jim Bridger coal plant. The fundamental transition in the electric sector, which continues to accelerate today, has shown time and again that ratepayers are better served by cleaner, safer, and less expensive sources of generation than coal. Today it is abundantly clear that lower cost and cleaner alternatives would have been a better choice for PacifiCorp. But even judging PacifiCorp's decision based on the information available to it in 2013, it should have been clear that spending massive amounts of capital on Jim Bridger was – at best – a high risk gamble, if not an outright mistake. What is worse is that PacifiCorp made the bet based on outdated information, poor management, and an almost dogged determination to ignore changing market fundamentals. PacifiCorp lost that bet, and it now wants ratepayers to pay for that loss. The Commission must now allow it.

[1] Sierra Club submits this post hearing brief in accordance with WAC 480-07-390 and Order 09 issued in the above captioned proceeding.

The Company's decision making process to install the SCRs was fundamentally flawed and failed to incorporate new information that should have alerted the Company to the rapidly eroding economics of the SCRs. Falling natural gas prices and an increase in coal costs in the fall of 2013 substantially changed the fundamental assumptions that the Company relied on to support its decision to install the SCRs. However, despite clear indications known to the Company that the value of its coal plant was falling, the Company never re-ran its net present value analysis once it had obtained approval from its regulators in Wyoming and Utah in May 2013.

Testimony from Sierra Club and Staff demonstrated that, had the Company more thoroughly updated its analysis based on information available to it at the time, it would have seen a dramatically different outcome for ratepayers related to the installation of SCRs than it had previously predicted. At a minimum, these changes should have prompted a thorough reexamination of the Company's decision. The testimony presented by Staff and Sierra Club thoroughly contradicted PacifiCorp's claims throughout this proceeding that there were no indications of changing conditions after May 2013 that should have caused it to reevaluate its decision to install the SCRs. The record shows that the Company either ignored or failed to understand critical changes that undermined its analysis, and therefore it chose not to re-run that analysis before issuing a full notice to proceed to its contractors on December 1, 2013. The failure of PacifiCorp's management to even consider the full impact of falling natural gas prices and rising coal costs prior to committing to the project was a clear error that has cost ratepayers enormously. The Company's rebuttal to this charge was a series of half-baked and shifting *post-hoc* analyses that attempted to distract from its demonstrable errors.

In addition to its failure to reconsider its analysis based on up-to-date information, the Company also failed to consider available alternatives to the SCRs that could have saved its ratepayers money. When the U.S. Environmental Protection Agency ("EPA") issued its final Regional Haze Rule for Wyoming on January 10, 2014, the Company should have recognized that the fundamental changes in gas and coal prices undermined the value of the entire Jim Bridger plant, and the requirement to install SCRs on all four Jim Bridger units was no longer a least-cost alternative. The Company should have responded by negotiating an alternative compliance strategy with EPA that would have avoided some or all of the SCRs at Jim Bridger Units 1-4. Instead, the Company insisted that its only available alternative was a similarly rushed

natural gas conversion by the same compliance deadline. The Company had more options; it should have pursued a "Better than BART"[2] alternative that could have allowed it to avoid installing the SCRs by committing to a plant wide plan that set retirement dates or natural gas conversion at some units in exchange for deferring the deadline to install pollution controls and/or installing less expensive controls. This type of "Better than BART" alternative is an outcome that EPA – and even PacifiCorp – has repeatedly utilized as a lower cost option for compliance for other coal plants in the country. However, PacifiCorp never even analyzed an alternative that considered the tradeoffs available for all four SCRs at Jim Bridger because it had prematurely committed itself to installing the SCRs at Jim Bridger long before the EPA issued its final rule.

II. RECOMMENDATION

Sierra Club recommends that the Commission finds that the decision to install SCRs was imprudent and disallow $35 million of the amount that PacifiCorp has requested to be put into Washington rate base for the SCRs at Bridger 3 and 4.[3]

Separate from the SCRs, Sierra Club supports the Company's request to accelerate depreciation of the existing plant balance for Jim Bridger to 2025 in recognition of the risks entailed in the continued operation of the Jim Bridger plant and the likelihood that it will not be economic to operate the plant to the currently scheduled depreciation date of 2037. Sierra Club takes no position on any of the other issues raised in this proceeding.

III. LEGAL STANDARD

The Commission applies a reasonableness standard for prudence review of expenditures such as the SCRs at Jim Bridger. The test the Commission applies considers what "a reasonable board of directors and company management [would] have decided given what they knew or reasonably should have known to be true at the time they made a decision."[4] In making this determination related to new capital expenditures, the Commission considers the following factors: (1) whether the new resources are necessary; (2) whether the Company evaluated and

[2] BART is "Best Available Retrofit Technology".
[3] *See*, Fisher, Ex. No. JIF-1CT at pp.41-42 for calculation of disallowance.
[4] *See*, JBT-1T at p.12 (citing *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy, Inc.*, Docket UE-031725, Order 12, ¶ 19 (Apr. 7, 2004)).

considered alternatives; (3) whether the acquisition decision involved the Board of Directors; and (4) whether the Company's analysis and decision-making process is adequately documented.[5]

It is PacifiCorp's burden of proof to show that its proposed rate increase for the SCR expenditures was prudent. RCW 80.04.130(4). In this case, the decision to install SCRs at Jim Bridger 3 and 4 is akin to a decision to acquire a new resource because compliance with the Regional Haze Rule is necessary to continue to operate the coal plant. In order to demonstrate prudence for such an acquisition, the Commission requires its utilities to document that it informed its board of directors about the decision with an analysis of the most up-to-date information available.

> [The company] in the future should **keep its Board of Directors better informed** about resource acquisitions of significant magnitude and their costs. The company should maintain all documents related to its decisions to enter into specific contracts. The company should also improve its model for estimating power costs. [The company] should specifically **analyze any resource alternative it is considering for acquisition, using up to date information** and adjusting for such factors as end effects, capital costs, dispatchability, transmission costs, and whatever other factors its planning process and common practice have disclosed need specific analysis at the time of a purchase decision. In addition to making an adequate study at the time, [the company] **must keep a record of its decision-making process** which will allow the Commission to evaluate its decisions.[6]

In failing to properly re-evaluate its decision to spend [redacted] of ratepayer money, PacifiCorp failed to identify the collapsing value of the SCR projects. Had the Company updated its analysis with current information, it would have realized that other lower-cost alternatives could have provided a better outcome for its ratepayers.

IV. ARGUMENT

A. PacifiCorp's Decision Making Process Was Fundamentally Flawed and Failed to Recognize the Rapidly Eroding Economics of the SCRs.

PacifiCorp failed to meet the reasonableness standard required by the Commission for the decision to install SCRs. The Company never reevaluated the economics of the SCRs versus a natural gas conversion option after it received preapproval from Wyoming and Utah in May

[5] *See*, JBT-1T at p.12 (citing *Wash. Utils. & Transp. Comm'n v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket UE-090205, Order 09, ¶ 64 (Dec. 16, 2009)).

[6] *Wash. Utils. & Transp. Comm 'n v. Puget Sound Power & Light Co.*, Docket UE-921262, Nineteenth Supplemental Order, Finding of Fact ¶ 11 (Sept. 27, 1994) (emphasis added).

2013. It never documented any reports to any board of directors or executive leaders - either within PacifiCorp or to its parent Berkshire Hathaway Energy - that addressed the falling gas prices and rising coal costs undermining the economics of the SCR decision. In fact, it never documented *any* analysis even within PacifiCorp's lower management subsequent to May 2013 that considered the decrease in natural gas prices combined with the increase in coal costs.

1. PacifiCorp's Own Data Showed a Precipitous Drop in Value that it Never Fully Analyzed

PacifiCorp first presented its analysis supporting the installation of the SCRs on Jim Bridger 3 and 4 in August 2012 to the Utah and Wyoming commissions.[7] The analysis then went through several iterations as the Company continued to update and change the assumptions related to gas prices and other factors. With each iteration, the relative value of the SCRs compared to the natural gas conversion scenario dropped. By September 2013, the Company's own analysis indicated that the value of the decision had dropped from [redacted] down to [redacted].[8] Had the Company reevaluated the decision based on its December 2013 official forward price curve for natural gas, it would have seen that value drop again to only [redacted].[9]

This loss in value of the SCRs was staggering. From August 2012 until the EPA issued its final Regional Haze Rule on January 10, 2014, a period of only 17 months, nearly the entire estimated [redacted] value of the project had been wiped out. Despite these substantial changes, the Company repeatedly reiterated that "there was nothing that would have triggered us to be contemplating a change of direction with respect to the SCR decision."[10] Rather the Company continued to rely on its system optimizer analysis that relied on the September 2012 gas price estimates and the January 2013 mine plan for Jim Bridger.[11]

In a series of memos from April,[12] May,[13] and December 2013,[14] related to the SCR projects, PacifiCorp never discussed the impact that falling natural gas prices or rising coal costs

[7] Fisher, Ex. No. JIF-1CT at p.8.
[8] Fisher, Ex. No. JIF-1CT, Figure 1, p.11; Twitchell, Ex. No. JBT-1T, Figure 1, p.9; Link, TR. 654:22-655:8.
[9] Link, TR. 655:12-15.
[10] Teply, TR. 456:1-3; *see, also,* Teply TR.457:12-15; Teply, TR. 460:9-13; Link, TR. 659:17-18; Crane, TR.609:13-23.
[11] Link, TR. 632:1-8.
[12] Teply, Ex. No. CAT-21C.
[13] Teply, Ex. No. CAT-22C.
[14] Teply, Ex. No. CAT-23C.

was having on its SCR decision. It never discussed any intention on the Company's part to reevaluate the economics of the SCR versus gas conversion before issuing the full notice to proceed.[15] This omission was not for lack of resources. Prior to December 2013, the Company apparently had time to update its PVRR analysis on the *timing* of the unit 4 installation based on up-to-date information using "the latest Company official forward price curve and updated replacement net power cost information..."[16] However, the memo does not explain why the Company chose not to use the same updated information to reassess the prudence of the project itself.

The Company built its analysis of the SCRs based on its September 2012 natural gas price forecast and the January 2013 mine plan. That information was horribly outdated by the time the Company issued the full notice to proceed in December 2013. Despite clear signals available to the Company that those fundamental prices had changed, the Company's decision makers were either unable or unwilling to reconsider the prudence of the SCRs. Instead, the Company rested on the inertia of having (1) planned for the installation of SCRs on Bridger 3 and 4 as early as January 2009 as part of its business plan[17] and (2) obtained preapproval from Wyoming and Utah to recover the costs in May 2013.[18] This refusal to consider new information was imprudent.

2. PacifiCorp Failed to Consider Up-to-Date Natural Gas Prices

From February 2013 when the Company completed its last analysis of the SCRs to December 1, 2013 when the Company issued the full notice to proceed, the only re-evaluation that occurred was a comparison of a proxy "break-even" gas price to the Company's levelized September 2013 official forward price curve.[19] In other words, the Company had established a gas price-point based on the February 2013 analysis and modelling that predicted when the PVRR(d) of that February analysis would flip to zero. It then looked at a levelized price calculation from its September 2013 official forward price curve and compared it to that number. This was not a re-analysis under the Company's system optimizer model, but rather a quick

[15] Teply, TR. 455:22-456:3, 457:9-15, 460:9-17.
[16] Teply, Ex. No. CAT-23C, p.10.
[17] Teply, Ex. No. CAT-27C
[18] Teply, Ex. No. CAT-14CT, Figure 1, p.7 (showing May 10 and May 30 orders from Utah and Wyoming, respectively).
[19] Link, Ex. No. RTL-1C, 20:14-21.

"check" of how the earlier analysis would have changed under a different gas price assumption.[20]

That check was not a full reevaluation because it did not update the significant change in coal costs at the Bridger mine, CO2 estimates, or changes to dispatch that would have been revealed in a system optimizer run.[21] Instead, the Company isolated only one variable: the impact of falling gas prices. That variable alone showed a drop of [redacted] in the expected value of the SCRs by September.[22] By plugging in the Company's December official forward price curve, that single variable alone resulted in a drop of [redacted] from its February 2013 analysis.[23] These changes were the result of **one variable**, and they nearly wiped out the expected value of the SCRs.

PacifiCorp's failure to analyze its decision to install the SCRs with the most up-to-date information was clear error. The Commission has rejected this type of reliance on out of date planning information in past decisions: "If Puget had made an appropriate analysis of its resource options at the time of purchase, instead of relying on planning numbers, we would not face the need to find a usable proxy. Instead, it relied on a mere comparison to its least cost plan."[24] PacifiCorp committed the same error here. It relied only on comparison of a single gas price "check" to reevaluate its prior planning analysis and business plan assumptions. That shortcut was not a substitute for a more rigorous review. And even if it was a good substitute, the Company failed to heed the warning signs that metric had provided. The fact is that once PacifiCorp had obtained pre-approval from Wyoming and Utah in May 2013, the Company never seriously considered changing its plans, despite mounting evidence that the SCRs were losing value.

Even this inadequate reliance on a proxy gas price was flawed. Despite having developed a breakeven price to consider the impact that natural gas prices in isolation would have on the analysis, the Company stopped considering that breakeven price after September 2013. Mr. Link conceded that after December 1st, the official forward price curve was "no longer relevant" to the SCR decision, and even before December 1st, Mr. Link admitted that he did not undertake a

[20] Link, TR. 636:17-637:4.
[21] Link, TR. 637:14-638:7.
[22] Link, TR. 660:9-17.
[23] Fisher, JIF-1CT, 25:4-6.
[24] *Wash. Utils. & Transp. Comm 'n v. Puget Sound Power & Light Co.*, Docket UE-921262, Nineteenth Supplemental Order, at p. 14 (Sept. 27, 1994).

review of third-party gas price forecasts that were coming in to the Company between September and December.[25] Both Mr. Link and Mr. Teply continued to assert that nothing had materially changed,[26] but Sierra Club's testimony showed that as of December 2013, a reevaluation of only the gas prices would have revealed that the value of the SCRs had dropped to [redacted], after having started at [redacted]. Even if the Company did not have its December 2013 official forward price curve in hand by the time it executed the full notice to proceed, it should have at least recognized that gas prices continued to fall sharply and acted accordingly.

The Company knew that falling gas prices could result in a substantial negative outcome for ratepayers with respect to the SCR decision. Mr. Link testified in his direct testimony that at a levelized gas price of $3.70, the PVRR(d) analysis showed that the SCRs would be a [redacted] loss to ratepayers. That negative estimate is greater than the total capital cost of the SCRs. By December 2014, levelized natural gas prices had already dropped to [redacted],[27] below the breakeven price of $4.86, which equates to a loss to ratepayers of over [redacted].[28] Had PacifiCorp continued to monitor the impact of falling natural gas prices even after December 1, 2013, it very well could have identified a point where the economics of Jim Bridger had gotten so bad that it would have been better for ratepayers to cut their losses and terminate the contract; the cost options of such termination are discussed below. However, PacifiCorp never even attempted to calculate prices from its subsequent official forward price curves to compare to the SCR projects.[29] It never considered whether the estimated loss to ratepayers had surpassed the sunk costs in the contract. By Mr. Link's own analysis, if the levelized cost of gas had ever dropped below $3.70, it would have made economic sense to cancel any unspent funds for the project and save whatever money the Company could, even if nearly all the funds had already been spent. Yet PacifiCorp never considered the possibility of cancelling the project because, as Mr. Link confirmed, the Company concluded that natural gas prices were "no longer relevant" after December 1, 2013.[30] This abdication of ongoing project review is yet another sign that the overall management of this major capital decision was severely flawed. Rather than looking for every opportunity to save ratepayers money, the Company was only looking for the bare

[25] Link, TR. 667:9-15, 691:14-25.
[26] Link, TR. 692:18-21; Teply, TR. 465:2-7.
[27] Fisher, Ex. No. JIF-1CT, Figure 4, p.26; *Id.* at Figure 5, p.30.
[28] Mr. Link confirmed that every one cent that natural gas prices decrease equates to approximately $2.6 million. Link, TR. 637:6-12.
[29] Link, TR. 663:16-24, 673:9-13, 674:9-675:9.
[30] Link, TR. 667:9-15.

minimum of evidence that it could later use to support a prudence determination for a capital decision that had been made many years in advance.

3. PacifiCorp Failed to Consider Up-to-Date Coal Costs

On top of the inadequate review of gas price changes, the Company never attempted to consider the impact that increased coal costs would have on the SCR analysis after it substantially changed its mine plan in October 2013. Ms. Crane admitted that the revised plan to [redacted] resulted in higher coal costs.[31] This change from the underground mine to the surface mine had multiple effects related to capital costs, cash costs, reclamation requirements, and the costs of operating the mine in a scenario where two Jim Bridger units converted to natural gas. Yet the Company's application and direct witness testimony completely omitted the changes that resulted from the October 2013 mine plan; instead, witnesses only addressed the issue in response to testimony from Sierra Club and Staff.

In its previous analysis presented to Wyoming and Utah, one of the driving factors in favor of the SCR was the Company's conclusion that reducing the plant to only two units would force closure of the surface mine, which in turn would require accelerated remediation of the surface mine.[32] Accelerating those costs was a substantial factor in the PVRR(d) difference between the gas case and the SCR case in the Utah and Wyoming dockets.[33] However, that issue was eliminated with the changes in the October 2013 mine plan because the Company swapped its assumptions and concluded that the underground mine, not the surface mine, would close early.[34] This change completely eliminated the cost driver in the earlier analysis that was tied to accelerated remediation.

Despite this clear change to a major factor in the SCR analysis, plus the admission that the October 2013 mine plan increased coal costs,[35] Mr. Ralston and Ms. Crane both claimed in two different analyses in their rebuttal and surrebuttal testimonies that any changes in the October 2013 mine plan were not material to the SCR decisions.[36] These conclusions, however,

[31] Ralston, Ex. No. DR-1CT, 8:1-11; Crane, TR. 590:21-591:4, 609:5-8.
[32] Crane, TR.615:6-616:-15; Link, Ex. No. RTL-1CT 6:16-7:7.
[33] Crane, TR. 616:4-11; *see, also,* Ex. No. DR-5CX, p.12 of 15, line 1.
[34] Crane, TR. 590:2-14.
[35] Crane, TR. 590:21-591:4, 604:25-605:4.
[36] Ralston, Ex. No. DR-1CT, 8:11; Crane, Ex. No. CAC-1CT, 5:1-4.

were after-the-fact because the Company conceded that it never actually ran an updated two-unit analysis that considered the change from the underground mine to the surface mine operations.[37]

When it did respond with its *post-hoc* analyses, the Company's testimony continued to change from rebuttal, to surrebuttal, and even through the evidentiary hearings. Mr. Ralston claimed the change in the four unit mine plan resulted in a net present value increase of [redacted],[38] while Ms. Crane's testimony claimed an increase of [redacted].[39] Ms. Crane then asserted that those increases must be offset by increases in the two-unit scenario, but the conclusion of how much that offset should be depended on whether the two-unit scenario increased by [redacted], or something else.[40] In sum, the Company's analysis of the change that resulted from the October 2013 mine plan was all over the map. These *post-hoc* rationalizations are largely irrelevant in any case because it is clear that the Company never ran the analysis in October 2013. Ms. Crane conceded that PacifiCorp did not update its two-unit analysis based on the October 2013 plan,[41] even though its thinking on operating the mine under a two-unit scenario had completely swapped from complete reliance on the underground mine to complete reliance on the surface mine.

The Company's analyses related to the impact – or purported lack of impact – that coal cost increases from the October 2013 mine plan had on the SCR decision were entirely *post-hoc* and only developed in response to testimony from Staff and Sierra Club. PacifiCorp therefore never even considered in 2013 what the impact of lower natural gas prices combined with higher coal costs would have been for the SCR decision. The Company's entire analysis remained premised on a mine plan that, by October 2013, was completely out of date. This omission again shows that PacifiCorp never really considered changing course on its decision to install SCRs, despite the mounting evidence against continued operation of the Jim Bridger plant.

4. PacifiCorp Missed or Ignored Critical Information by Failing to Update its Analysis with Falling Gas Prices and Rising Coal Costs

Staff and Sierra Club both submitted testimony attempting to show what PacifiCorp's analysis likely would have shown had the Company actually conducted an analysis with up-to-

[37] Crane, 608:15-23.
[38] *See* Crane, TR.605:20-651:5.
[39] Crane, TR. 606:6-607:7.
[40] Crane, TR. 613:8-614:13.
[41] Crane, TR.608:15-18.

date information. The analyses by Staff and Sierra Club are admittedly imperfect because they relied on assumptions and proxies to fill in the gaps of information that only the Company would have had at the time. Despite these imperfections, both Staff and Sierra Club came to remarkably similar independent conclusions regarding the deteriorated value of the SCRs.[42] While there is no "magic number" in this type of analysis where the PVRR(d) analysis reaches a threshold that conclusively determines that the decision to install SCRs was either prudent or imprudent, the analyses conducted by Staff and Sierra Club show that, based on information available to the Company at the time the decision was made, the value of the SCRs had fallen substantially. Whatever the final PVRR(d) estimate is in either Staff or Sierra Club's analyses, both analyses showed that the changes in gas prices and coal costs were significant and should have triggered a re-evaluation of the SCR versus natural gas alternative.

Had the Company conducted its own real time, updated analysis and seen the drop in value, it then would have been compelled to at least document a reasoned explanation for moving ahead with the SCRs despite the increased risks. But it did no such thing. Nevertheless, such informed and documented decision making is generally expected by this Commission, even if the ultimate PVRR(d) results were less favorable. However, because none of that occurred, the Company essentially stuck its head in the sand once it had received pre-approval from Utah and Wyoming and never seriously considered alternatives that could have saved its ratepayers significant sums of money. The Company never even considered the change in coal costs until it was forced to respond to those issues on rebuttal in this proceeding. Based on this aspect alone, the decision to install SCRs was therefore imprudent, and the Commission should disallow a portion of those costs.

If nothing else, such a disallowance would provide an incentive to the Company to be more diligent in future capital decisions and not reward studied inattention. It would also not be the first time that the Company faced a disallowance for sloppy decision making related to capital expenditures at its coal plants. In 2012, the Oregon Commission issued a $17 million disallowance, "[b]ased on [the commission's] findings that Pacific Power failed to reasonably examine alternative courses of action and perform adequate analysis to support its

[42] Compare Twitchell, Ex. No. JBT-1CT, Figure 1, p.9 and Fisher, Ex. No. JIF-1CT, Figure 1, p.11; s*ee, also,* Fisher, Ex. No. JIF-24CT, 18:12-19.

investments…"[43] Notably, the Oregon commission issued its admonishment in December 2012, right before the planning period at issue in this proceeding. And yet PacifiCorp did not heed that Commission's warnings but instead committed to yet another imprudent capital expenditure on its coal plants.

B. PacifiCorp Failed to Consider Lower Cost Alternatives to Comply with the Regional Haze Rule.

PacifiCorp was required to consider alternatives to the SCRs in its decision making process.[44] As discussed above, the Company did conduct an alternatives analysis – albeit highly flawed – of installing the SCRs on Jim Bridger units 3 and 4 by 2015/2016 compared to a conversion of the units to natural gas by 2015/2016. However, the alternative to convert only units 3 and 4 to natural gas on the same timeline as the SCRs was not the only alternative available to the Company.

1. PacifiCorp Failed to Pursue a "Better than BART" Alternative

PacifiCorp's insistence that it had no option other than a compliance deadline of December 31, 2015 to install SCR on Jim Bridger 3 is largely what compelled the Company to rush forward with a full notice to proceed on December 1, 2013.[45] Sierra Club acknowledges that EPA's final Regional Haze Rule for Wyoming adopted this deadline. Nevertheless, PacifiCorp had options available to it that it failed to exercise, which easily could have altered those deadlines or avoided the SCRs altogether.

As discussed above, by fall of 2013 it should have been apparent to the Company that the value of the Jim Bridger coal plant had deteriorated substantially. The shifting economic fundamentals hitting coal generation should have prompted PacifiCorp to pursue a "Better than BART" alternative. That is, a compliance alternative that avoids the requirement to install SCRs by a date-certain in exchange for committing to a plan that reduces haze forming pollution even more than the required controls at a reduced cost.

The Regional Haze Rule imposes requirements on states to develop a plan that reduces haze forming polluting such that Class-1 areas can reach natural visibility conditions by 2064. In

[43] Oregon PUC Order No. 12-493, Docket UE 246 at p.31.
[44] *Wash. Utils. & Transp. Comm'n v. PacifiCorp d/b/a Pacific Power & Light Co.*, Docket UE-090205, Order 09, ¶ 64 (Dec. 16, 2009).
[45] *See*, Teply, CAT-21C, p.6.

achieving this goal, eligible sources must install the best available retrofit technology ("BART"), which is based on a consideration of several factors. A BART determination cannot directly require a source to retire a coal unit. However, EPA has repeatedly demonstrated a willingness to consider alternative compliance scenarios that are "Better than BART."[46] If a source proposes a firm date to retire or convert a coal unit to natural gas, then EPA typically allows the unit to operate uncontrolled or with less costly controls for a period of time, as long as the overall benefits to visibility meet or exceed that which would have been required under a BART determination. The source may then choose its preferred compliance path by either installing the controls and meeting the emission limits required under the BART determination, or by committing to a "Better than BART" alternative.

PacifiCorp itself acknowledged that a "Better than BART" alternative was a possibility for Jim Bridger 3 and 4. In an April 24, 2013 memo discussing the SCRs, PacifiCorp alluded to further IRP planning to look at precisely this scenario:

Despite acknowledging that alternatives were readily available, there is no evidence that the Company ever followed up on evaluating this scenario in the fall of 2013 or by January 2014 when the EPA's final rule came out. The Company's failure to consider this option in the face of falling natural gas prices and increasing coal costs is inexplicable.

As discussed above, the Company should have realized before December 1, 2013 that the economic case for the SCRs had essentially been wiped out. Furthermore, by the time EPA issued its final rule on January 10, 2014, PacifiCorp would have had its December 2013 official forward price curve in hand, which strongly reinforced the conclusion that, at best, the decision

[46] Teply, TR. 522:18-524:14.
[47] Teply, Ex. No. CAT-21C, p.3 (emphasis added).

to install SCRs at units 3 and 4 was a wash, if not an outright loss. Rather than issuing the full notice to proceed and subjecting itself to an increasing scale of contract termination penalties, the Company should have negotiated with EPA to establish a plan to avoid SCRs on all four Jim Bridger units in exchange for either firm retirement dates, natural gas conversion or a combination therein. This type of tradeoff is exactly what PacifiCorp had done for other plants that faced SCR requirements,[48] and it is an alternative that other utilities like Basin Electric in Wyoming are actively pursuing.[49]

2. PacifiCorp's Contract Allowed it Time to Consider Alternatives

Prior to issuing the full notice to proceed, the Company had the option under the contract [redacted][50] In fact, the Company had already determined that a two-month delay would have increased costs by approximately [redacted].[51] Waiting those two months would have been enough time for EPA to issue its final BART determination for Wyoming and still meet the expected compliance deadline of 2015, albeit with somewhat higher costs. In the alternative, had the Company delayed issuing the full notice to proceed for two months and then terminated the contract for the SCRs, it would have been liable for a maximum of [redacted].[52] Finally, even if the Company had issued the full notice to proceed, but then terminated the contract by January 31, 2014, it would have been liable for a maximum of [redacted].[53] In short, the Company had the ability to buy itself time, if it had wanted to do so. The cost for this time would have been approximately [redacted] of the total project costs.[54] This is a comparatively small amount for an opportunity that could have avoided the [redacted] capital expense altogether. The benefit is amplified when considering that SCRs could also have been avoided for units 1 and 2, which as it stands now are required in 2021 and 2022.

3. PacifiCorp Failed to Seek a Delay in the Compliance Deadlines

Even if EPA had been unwilling to negotiate a "Better than BART" alternative, which is extremely unlikely, PacifiCorp had strong grounds to insist that EPA push out its compliance obligations until 2019. The Code of Federal Regulations 40 CFR 51.308(e)(1)(iv) provides that

[48] Teply, TR. 527:9-19.
[49] Teply, TR. 527:2-7.
[50] Teply, TR. 488:3-8; Teply, Ex. No. CAT-23C, p. 3.
[51] Teply, Ex. No. CAT-23C, p. 4 ¶ 8.
[52] Teply, Ex. No. CAT-23C, p.5; *see, also*, Ex. No. CAT-36HCCX.
[53] Teply, Ex. No. CAT-23C, p.5.
[54] Assuming a total project cost of [redacted].

BART must be installed "as expeditiously as practicable, but in no event later than 5 years after approval of the implementation plan revision."[55] This means that the clock started in January 2014 when EPA issued its final Regional Haze Rule for Wyoming. The Company has repeatedly indicated that waiting until January 2014 to commit to building the SCRs would have been "difficult, if not impossible."[56] And yet the Company never even asked EPA for a change in the compliance schedule.[57] If nothing else, the Company could have simply included a challenge to the Jim Bridger SCR dates in the lawsuit it filed against EPA related to the SCR requirements at the Wyodak and Dave Johnston plants.[58] Notably, the 5-year compliance deadlines for those plants have been stayed pending the outcome of the litigation.

The only response the Company has for its failure to seek a delay in the compliance schedule is its insistence that Wyoming had somehow imposed an "underlying state obligation" that it was required to meet.[59] This interpretation is nonsense. PacifiCorp does not cite to a single law or regulation that creates an independent, underlying Wyoming state obligation to comply with the *federal* Clean Air Act. PacifiCorp cites to three "legal obligations" as the basis for this alleged independent state obligation: (1) an administrative BART appeal settlement agreement between the state of Wyoming and the Company, (2) the unapproved Wyoming SIP, and (3) a BART permit the Company sought from the state of Wyoming for Jim Bridger.[60] Notably, none of these sources of legal authority point to any actual "underlying" state law because none exists. Each of these components is an aspect of the state of Wyoming implementing **federal** law.

Under the Clean Air Act, states are required to create and submit state implementation plans (SIPs) that meet the goals of the Clean Air Act laid out by Congress. *See N. Carolina, ex rel. Cooper v. Tennessee Valley Auth.,* 615 F.3d 291, 299 (4th Cir. 2010). States are also tasked with enforcing the limits they adopt in their EPA-approved SIPs through the issuance of permits. *Id.* Once EPA approves a SIP, it becomes federally enforceable. *Id.* This process of cooperative federalism, whereby states take the lead in implementing federal requirements, is the primary means by which the nation regulates air quality. *Id.* at 298. In this case, each of the "legal authorities" relied on by PacifiCorp is a step in the process that EPA and Wyoming work through

[55] *See, also,* Teply, TR. 517:18-24.

[56] Teply. TR. 515:24-515:20, 517:25-518:7; Teply, Ex. No. CAT-21C, p.4.
[57] Teply, TR. 515:17-23.
[58] Teply, TR. 528:9-12.
[59] Teply, TR. 481:19-22; 506:20-23; 523:18-21; 526:3-6; 531:9-12; 540:20-25.
[60] Teply, Ex. No. CAT-14CT, 18:9-12.

to determine the ultimate requirements for sources under the federal Regional Haze Rule. EPA explained how this process works in its final rule for Wyoming:

> In the context of acting on a regional haze SIP, EPA must assure that it meets the requirements of the Act and the RHR, including requirements regarding BART. EPA… **is not required to defer to the state's technical judgments**. Instead, EPA is not only authorized, but **required to exercise independent technical judgment in evaluating the adequacy of a state's regional haze SIP**, including its BART determinations, just as EPA must exercise such judgment in evaluating other SIPs.[61]

At the end of the process, **there is only one requirement** that sources must meet to comply with the Regional Haze Rule, and EPA determines what that requirement is. The Clean Air Act does not create two simultaneous and independent compliance obligations. To the contrary, the doctrine of federal preemption explicitly forbids such an outcome.[62] The U.S. Supreme Court is emphatic on this point: "A state law is also pre-empted if it interferes with the methods by which the federal statute was designed to reach this goal." *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 494 (1987).

In this case, an underlying Wyoming obligation that differed in the compliance schedule, emission limit, and/or type of control technology would have necessarily interfered with EPA's ability to exercise its independent technical judgment to meet the goals of the Regional Haze Rule. An independently enforceable state obligation would have also circumvented EPA's ability to reach a "Better than BART" alternative, which by definition would be more stringent than the original SIP determination. Preemption is especially applicable where, as here, "compliance with both federal and state regulations is a physical impossibility." *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 204 (1983). In short, there is and never has been any "underlying state obligation." Had EPA decided to allow an alternative compliance path or extend the deadlines, either on its own accord or following a request by PacifiCorp, it would have been free to do so. Wyoming would have been prohibited from compelling PacifiCorp to meet a compliance obligation that differed from EPA's.[63]

[61] 79 Fed. Reg. 5064 (Jan. 30, 2014) (emphasis added)
[62] The Clean Air Act allows California to seek a waiver of preemption which prohibits states from enacting emission standards for new motor vehicles, but such waiver is not applicable here.
[63] It also bears mentioning that Wyoming does not have a history of compelling environmental controls that are more stringent than EPA's.

PacifiCorp's misunderstanding of this fundamental principal of environmental law is staggering and, frankly, implausible. PacifiCorp's interpretation would mean that it believes it must take action and commit resources to comply with requirements that do not yet exist. While this interpretation may favor the deployment of capital that the Company would like to earn a rate of return on, it risks wasting vast amounts of ratepayer money to "comply" with regulations that may change or never materialize. PacifiCorp has previously been reprimanded by other utility commissions for this same behavior. In Oregon's 2012 General Rate Case, the Commission determined that the utility acted imprudently when it prematurely committed to construction of expensive pollution controls on several of its coal plants:

> We are not persuaded by Pacific Power's claim that the state and federal implementation of the [Regional Haze Rule] imposed a binding plant-specific emission limit on each of the utility's plants that had to be implemented at the time the investments were made. … We similarly are not persuaded by Pacific Power's reliance on construction approval orders and permits that mandate specific $S0_2$ plant emission limits upon completion of construction. Pacific Power has been unable to present us with documentary evidence demonstrating that the Wyoming and Utah DEQs required Pacific Power to apply for all of the permits at issue here when it did so.[64]

PacifiCorp's claims that it was required to meet an underlying state obligation in Wyoming are wrong. Had PacifiCorp successfully pursued an alternative compliance schedule with EPA, that plan would have superseded any state level requirements to install the SCRs by 2015 and 2016. Even if PacifiCorp had not been able to successfully negotiate with EPA, it would almost certainly have prevailed in a court challenge to push back the compliance deadline to a time that was "as expeditiously as practicable."[65] As Mr. Teply acknowledged, the requirement to install SCR by December 31, 2015, which was less than two years from EPA's final action on the Wyoming Regional Haze Rule, was not practicable.[66]

If nothing else, a legal challenge would have compelled EPA to extend the deadline to a more reasonable time. This extra time would have allowed PacifiCorp to contemplate and pursue a lower cost "Better than BART" alternative. Moreover, the record shows that even if a "Better than BART" solution was not found, the normal, five-year regulatory BART compliance

[64] Oregon PUC Order No. 12-493, Docket UE 246 at p.28.
[65] 40 CFR 51.308(e)(1)(iv).
[66] Teply, TR. 516:24-517:16.

schedule would have provided PacifiCorp with time to understand that the ongoing decline in natural gas prices had rendered the project uneconomic. By failing to even request that EPA extend the deadline, PacifiCorp abandoned several promising alternatives that could have saved its ratepayers millions.

4. PacifiCorp Pursued its Own Business Plan at the Expense of its Ratepayers

PacifiCorp's failure to continue to search for lower cost alternatives for its ratepayers is inexcusable. In this case, the evidence shows that PacifiCorp had already established a plan to install the Bridger 3 and 4 SCRs in 2015/2016 by January 29, 2009 when it presented its "emission reduction plan" in a confidential letter to Wyoming.[67] That letter included PacifiCorp's schedule for engaging in [redacted][68] While PacifiCorp was publicly challenging the requirement to install SCRs,[69] it was simultaneously pitching its confidential business plan to embark on a massive spending spree on its coal units. That [redacted] spending plan would ensure a substantial increase in rate base and avoid the risk that its existing coal plant assets might face early retirement.

The Company's claim that the emission reduction plan schedule was merely intended as a fallback position "in the event [PacifiCorp] was not successful in avoiding the SCR"[70] is not credible. The confidential cover letter accompanying the schedule states, [redacted] the plan, and later asks that Wyoming [redacted][71] In other words, PacifiCorp had developed its business plan before January 2009 and then asked Wyoming to adopt the plan. The BART settlement agreement to which PacifiCorp also cites was not signed until November 2010,[72] nearly two years *after* PacifiCorp had already put forward its own plan to, among other things, install SCRs on Bridger 3 and 4 by 2015 and 2016.

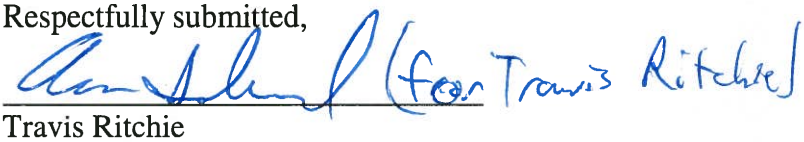
In summary, PacifiCorp's own business plan called for the installation of SCRs at Jim Bridger 3 and 4 as early as January 2009. By the time that EPA had finally – five years later – come around to finalizing the Regional Haze Rule for Wyoming in January 2014, the

[67] Teply, Ex. No. CAT-27CCX.
[68] *Id.* at 1-2.
[69] *See,* Teply, Ex. No. CAT-34CX.
[70] Teply, TR. 513:7-13.
[71] Teply, Ex. No. CAT-27CCX (emphasis added).
[72] Teply, Ex. No. CAT-24, p.7.

fundamental economic conditions supporting capital expenditures at coal plants across the country had collapsed. Instead of being in a position to easily justify its preferred plan to install the SCRs on Jim Bridger, PacifiCorp was faced with an analysis that had all but wiped out the value of the SCRs. Rather than taking the time to reevaluate its position, PacifiCorp instead put blinders on, ignored up-to-date information and rushed ahead with costly expenditures under the faulty premise that an "independent state obligation" compelled it to do so. The Commission cannot condone this imprudent behavior and should therefore disallow the capital expenditures for the SCRs at Jim Bridger 3 and 4.

Dated: June 22, 2016

Respectfully submitted,



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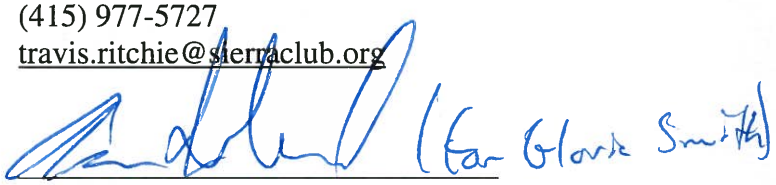

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