

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 246

In the Matter of)	
)	CITIZENS' UTILITY BOARD
PACIFICORP, dba PACIFIC POWER)	OF OREGON'S POST-HEARING BRIEF
<u>Request for a General Rate Revision</u>)	

**I. CUB AND ICNU ARE FILING A JOINT POST-HEARING BRIEF
RELATED TO ALL ISSUES EXCEPT CLEAN AIR INVESTMENTS—CUB
ADDRESSES THE CLEAN AIR INVESTMENTS BELOW**

In compliance with the “Joint Pre-Hearing Conference Memorandum” issued by ALJ Pines on September 20, 2012, and for the sake of judicial economy, the Citizens’ Utility Board of Oregon (“CUB”) and the Industrial Customers of Northwest Utilities (“ICNU”) have decided to also file a Joint Post-Hearing Brief related to the issues of the PCAM, TAM, and Mona to Oquirrh transmission line. This Post-Hearing Brief, filed solely by CUB, relates to PacifiCorp’s pollution control investments. Given CUB’s comprehensive Pre-Hearing Brief, upon which it continues to rely, CUB will not reiterate all of its prior arguments here, nor address Staff or PacifiCorp’s arguments further if it feels those arguments were adequately addressed in its Pre-Hearing Brief. CUB will instead focus on rebutting the arguments raised by PacifiCorp’s questioning at the time of Hearing and also upon the arguments raised in PacifiCorp’s and Staff’s Pre-Hearing Briefs. CUB’s failure to address any argument should not be construed as agreement with that argument.

II. INTRODUCTION

According to PacifiCorp, the Company is:

In the process of implementing an emission reduction program From 2005 through 2010 PacifiCorp has spent more than \$1.2 billion in capital dollars. It is anticipated that the total costs for all projects that have been committed to will exceed \$2.7 billion by the end of 2022. The total costs (which include capital, O & M and other costs) that will have been incurred by customers to pay for these pollution control projects during the period 2005 through 2023, are expected to exceed \$4.2

1 billion, and by 2023 the annual costs to customers for these projects will have
2 reached \$360 million per year.¹

3 On its current trajectory PacifiCorp will exceed \$4.2 billion in costs² unless the Commission, going
4 forward, requires the Company to do the legally required least-cost/least risk planning and disallows
5 investment costs that were, and are, incurred without such planning.

6 It *is* within the jurisdiction and duty of this Commission to question PacifiCorp's
7 decision to spend hundreds of millions of dollars on capital expenditures that were
8 unnecessary or not cost effective, and to disallow those capital expenditures from
9 rate base where it determines that the Company's actions were not prudent.³

10 PacifiCorp states that "it is undisputed that the Company prudently managed the installation
11 of the emissions control equipment and actively managed project costs, in some cases resulting in
12 significant cost reductions."⁴ CUB does not agree that this issue is undisputed—CUB is arguing that
13 the pollution control investments should not have been made for several reasons, including that no
14 laws yet required them, a full and complete Integrated Resource Plan ("IRP")-style analysis was not
15 conducted, and the submission for IRP review did not occur. In addition, prudent active
16 management would have reevaluated these projects in light of fundamental changes in the natural
17 gas and wholesale electric markets, and some of the projects would have been canceled. Since some
18 of the projects should not yet have commenced and others should have been canceled, it cannot be
19 undisputed that the Company prudently managed each project's installation.

20 To the contrary, CUB believes the investments in this docket were poorly evaluated and
21 improperly managed, with the result that some, if not all, of the investments are imprudent. Major
22 investments in utility generation must be subjected to least-cost/least-risk planning as required by

¹ Sierra Club/112 Exhibit A to PacifiCorp's Emissions Reduction Plan, November 2, 2010, at 1. See also page 2, Table 1 for the long-term plan summary showing Naughton 1 and 2 under construction for Low NOx burners and SO₂ scrubbers, and Bridger being permitted for an SCR.

² These costs continue to increase - CUB/Exhibit 304 at 3 last paragraph; see also Hearing Transcript at 173 lines 12-25 and at 174 lines 1-9, where CUB believes there is a typo because, of the units listed on page 173, only the Wyodak costs are supposed to be in this docket.

³ Sierra Club Pre-Hearing Brief at 2 lines 17-20 (*emphasis in the original*).

⁴ UE 246 PacifiCorp Pre-Hearing Brief at 8.

1 the statutory bi-annual IRP filings and reviews.⁵ The investments at issue in this docket were not
2 subjected to the crucible of least-cost/least-risk IRP analysis and review until it was too late for the
3 IRP process to have any influence on the ongoing procurement and construction decision-making
4 and thus on the avoidance of unnecessary costs. As a result, the Company's pollution control
5 investments at issue in this docket were made prematurely and sprang from the Company's lack of
6 least-cost/least-risk analysis, the Company's lack of diligent project oversight, and the Company's
7 lack of project reevaluation. As stated by Sierra Club in its Pre-Hearing Brief, "the Company sought
8 permits to install retrofits that were not legally requiredPacifiCorp repeatedly rushed ahead of
9 existing environmental regulations . . . and the Company failed to reassess its plans in the face of
10 changing circumstancesThe Company also relied on flawed economic analyses to rationalize
11 their unnecessary proposals to install environmental retrofits. Rather than making prudent
12 management decisions that adjusted to uncertain regulations, falling natural gas prices, and increased
13 risks for coal plants, PacifiCorp doggedly stuck to its business plan to invest billions of dollars in its
14 coal plants"⁶ Ratepayers should never be forced to pay for investments that were imprudently
15 made by a regulated utility.⁷ Imprudent investments must be excluded from rate base, and
16 accountability requires that there be a disallowance in this docket.

17 In this Post-Hearing Brief, CUB continues to focus on Naughton 1 and 2 and Jim Bridger 3
18 but CUB's least-cost/least-risk IRP arguments are applicable to all of the pollution control
19 investment costs in this docket. PacifiCorp's failure to conduct least-cost/least-risk analysis on each
20 of the projects in this docket was reckless at best because the Company made the investments
21 without first determining whether they were prudent.⁸ It remains CUB's position that:

⁵ UE 246/CUB/100/Jenks-Feighner/11 lines 16-18.

⁶ Sierra Club Pre-Hearing Brief at 2 lines 4-5; Sierra Club Pre-Hearing Brief at 3 lines 8-13.

⁷ UE 246/Sierra Club/200/Steinhurst/7, lines 1-9.

⁸ PacifiCorp will likely point out that there is an IRP Update in this docket—the 2012 March Update to the 2011 IRP. That update still failed to consider alternative closure dates for the units at issue in this docket and assumed that any investments that are subject to this docket were sunk and not avoidable. Moreover, that IRP analysis came too late because it came *after* PacifiCorp had already invested hundreds of millions of dollars in its coal units, including those at issue in this docket. UE 246/CUB/100/Jenks-Feighner/11 lines 22-23 and Jenks-Feighner/12 lines 1-4.

1 Because of the risks associated with future carbon regulation, the Commission
2 should scrutinize investments in coal plants and only make such investments when
3 they are cost effective. Each time a utility is required to make a significant investment
4 in a coal plant, that utility should take the opportunity to reexamine all of its
5 investment plans in that coal plant to ensure that the necessary investment, when
6 combined with future expected investments and regulatory costs, is prudent and
7 reasonable. The Commission must then review the utility's decision on whether its
8 investment was prudent and reasonable.⁹

III. STANDARD OF REVIEW

9 CUB set forth the standard of review in its Pre-Hearing Brief. CUB respectfully requests that,
10 pursuant to the objective reasonableness standard, the Commission pay close attention to the
11 “*historical facts*” and “*circumstances*” in this record. As RNP and NWECA so succinctly stated:

12 [I]n this proceeding, PacifiCorp must establish that it adequately studied the question
13 of whether to invest further in the resources at issue and made a reasonable decision,
14 using the data and methods that reasonable company management would have used
15 at the time the decisions were made.¹⁰

16
17 With respect to Naughton 1 and 2 and Bridger 3, CUB believes that the *historical facts and*
18 *circumstances* of the *objective reasonableness standard* demonstrate that these investments were imprudently
19 made.¹¹ There is no proof that these investments were needed to satisfy environmental regulations,
20 there is no proof that a least-cost/least-risk analysis was performed prior to the making of the
21 investments, and there is no proof that the making of these investments was in the economic best
22 interests of customers as opposed to the then-available alternatives.¹² And, contrary to what the
23 Company would have the Commission believe,¹³ the *objective reasonableness* standard “should not be
24 interpreted to mean that evidence regarding the utility’s decision-making process, e.g., evidence that
25 the process was deficient, is not relevant to the determination of prudence. A utility’s decision-

⁹ UE 246/CUB/100/Jenks-Feighner/10 lines 20-21 and Jenks-Feighner/11 lines 1-6.

¹⁰ UE 246 Joint Pre-Hearing Brief of RNP and NWECA at 2-3.

¹¹ CUB notes for the record that the quotation set forth by PacifiCorp, at page 10 of its Pre-Hearing Brief, in regard to “objective reasonableness” is not one upon which the Commission should rely. That quote is taken from one of PacifiCorp’s own RAC cases and is not from the Commission decision language in that case, but rather from the Commission’s summary of PacifiCorp’s arguments. The quotation is thus not a “finding” of the Commission. In fact, the Commission does not specifically discuss or affirm the prudence standard articulated by PacifiCorp in that case, and therefore PacifiCorp’s reliance on this quote is misplaced.

¹² See also, Joint Pre-Hearing Brief of RNP and NWECA at 3.

¹³ “[T]he parties’ arguments criticize the Company’s subjective decision-making process, thereby failing to address the correct prudence standard.” UE 246 PacifiCorp Pre-Hearing Brief at 26.

1 making process is generally a primary consideration in a prudence review”¹⁴ CUB also notes
2 that while it does not agree with the ruling in UM 995, the UM 995 Order should be read to permit,
3 on equity grounds, that parties can supplement the record after-the-fact with evidence to support a
4 finding of prudence or imprudence. After all, the standard has been interpreted to be the
5 “information that was available” to the Company at the time of the action, “or could reasonably
6 have been available at the time of the action.”¹⁵ If the Company is permitted to supplement the
7 record after the fact in order to try and establish its prudence based on what “could reasonably have
8 been available at the time of the action”—when there would otherwise be no record to support such
9 a finding—then Staff and Intervenors should likewise be permitted to supplement the record with
10 regard to what the Company “could reasonably have [had available] at the time of the action” in an
11 attempt to demonstrate imprudence. Moreover, there is simply no basis upon which Intervenors
12 could know to start collecting evidence of imprudence at the “time of the action.” And, in this case,
13 Intervenors were even prohibited from knowing about the projects at the time when an IRP should
14 have been held because the Company failed to bring the project to the Commission for IRP review.
15 For all of these reasons, PacifiCorp should not be permitted to successfully argue that CUB’s
16 evidence is all *after-the-fact*¹⁶ and discountable. This is especially true since much of the Company’s
17 own evidence (the 2011 IRP Update dated March 2012 and the modified PVR(d) study) is also
18 *after-the-fact* and this is the first time these projects have been brought to the Commission for review.
19 CUB also notes that there is a difference between submission of “after-the-fact” evidence and

¹⁴ UE 233 Staff Pre-Hearing Brief at 5 lines 1-4. Staff goes on to note that there may be circumstances, such as in Docket UM 995, when a utility was able to overcome the inability to explain its internal activities under the current interpretation of the standard and establish that a particular action was prudent. CUB does not think, given the historical facts and circumstances in this docket, that the UE 246 docket should be found to be one of those cases.

¹⁵ In Re PGE, Docket No. UE 139, Order No. 02-772 at 11 (Oct. 30, 2002). And not, as PacifiCorp states, only “the information available at the time the decisions were made.” UE 246 PacifiCorp’s Pre-Hearing Brief at 11.

¹⁶ “[T]he parties’ arguments were based on after-the-fact adjustments that used information that was not available at the time the decision to invest was made, used invalid economic assumptions, or did not affect the results of the PVR(d) analyses to the degree alleged by the parties. (citations omitted) UE 246 PacifiCorp Pre-Hearing Brief at 26. CUB notes once again that it used PacifiCorp’s model and its numbers and information otherwise available to PacifiCorp at the time of the action. If CUB’s model was wrong, so was PacifiCorp’s model. *See e.g.* CUB/200/Jenks-Feighner/35; CUB/200/Jenks-Feighner/37; CUB/200/Jenks-Feighner/39-40.

1 “hindsight.”¹⁷ *The American Heritage College Dictionary, Third Edition*, defines hindsight as: “Perception
2 of the significance and nature of events after they have occurred.” CUB’s presentation of *after-the-fact*
3 evidence is the provision of information that “could reasonably have been available at the time of
4 the action.”

5 Turning back to the matter of the other units at issue in this docket, it is difficult to say what
6 the Company would have found if the Company had prudently analyzed those investments because,
7 as with the Naughton 1 and 2 and Jim Bridger 3 units, no least-cost/least-risk analysis was
8 performed and no environmental laws—at least in the State of Wyoming—required these
9 investments. In addition, because the SO₂ controls were governed by the Regional SO₂ Milestone
10 and Backstop Trading Program, the actions taken at one plant will affect the actions necessary at
11 other plants. Each of those factors alone is sufficient for CUB to argue that all of the pollution
12 control investments in this docket should be found to be imprudent and disallowed, though CUB’s
13 recommendations do not go that far.

14 **IV. CUB’S SUMMARY RESPONSE TO ALJ PINES’ BRIEFING MEMORANDUM** 15 **OF NOVEMBER 1, 2012**¹⁸

14 Question 1 in the Briefing memorandum of November 1, 2012, is comprised of many
15 separate sentence questions. CUB has assigned each sentence question a letter designation and
16 responds to each designated sentence question separately below.

¹⁷ UE 246 PacifiCorp Pre-Hearing Brief at 11, citing to *In Re PGE*, Docket No. UE 139, Order No. 02-772 at 11 (Oct. 30, 2002). CUB notes that the Commission did in fact go on in that case to find that PGE was imprudent in purchasing high-priced power for the remainder of the 2003 calendar year because, “prior to signing the contracts, PGE knew or should have known that the power market situation was improving due to increased development of generation facilities.” Order No. 02-772 at 13 The Commission also emphasized that there was little if any supporting evidence about the conditions necessitating the purchases, and that there was evidence in the record that the market was illiquid. *Id.* at 13-14 This case thus provides an example of the Commission’s finding of imprudence based on the circumstances that the utility knew or should have known at the time of the action. In this UE 246 Docket, PacifiCorp, similar to PGE, knew or should have known that its investments needed to undergo IRP style analysis and that they needed to actually be submitted for IRP review. In the case of Naughton 1 and 2 and Bridger 3, the Company also knew or should have known that these investments were marginally cost-effective at best and that alternative resources should have been reviewed.

¹⁸ Additional detail appears in the body of this Brief. CUB assumes that all questions in Part 1 relate to SO₂.

1 a. *Did participation in the SO₂ Backstop Trading Program in Wyoming and Utah trigger any legally*
2 *enforceable emissions limits or unit-specific pollution controls applicable to PacifiCorp's plants or units?*

3 No. Pursuant to the record in this docket, there is no statutory or regulatory requirement,
4 either federally, regionally or in the State of Wyoming for unit-specific emissions limits of 0.15
5 lb/MMBTU for SO₂. PacifiCorp's argument implying that there is such a statutory or regulatory
6 foundation is unsupported, save for the testimony of Cathy Woollums, who stated that the
7 underlying obligation (0.15 lb/MMBTU) comes from "some of the construction permits and
8 operating permits that [PacifiCorp] applied for,"¹⁹ which were based on the presumptive BART
9 limits for SO₂.²⁰ But those limits did not apply to PacifiCorp on a unit-by-unit basis because of its
10 participation in the Regional SO₂ Milestone and Backstop Trading Program.²¹ Additional detail
11 regarding this response is contained in the body of this brief.

12 b. *What documents in the record identify the source and effective date of the required emissions limits or*
13 *pollution controls?*
14

15 There are no emissions limits or control technology requirements to enforce. Under the
16 Regional SO₂ Milestone, sources must monitor and report their SO₂ emissions, but there is no
17 requirement to reduce emissions unless, and until, the Backstop Trading Program is triggered (i.e.,
18 when there is an exceedance of a milestone).

19 c. *What plant-specific emissions limits applied to Pacific Power for the years 2006-2009?*

20 According to the documentation in the record, it appears to CUB that the only SO₂
21 emissions limits that could have applied to PacifiCorp were those contained in operating permits not
22 received until May 2009 and subsequently instituted by the Company.²² However, the state of
23 Wyoming specifically stated that SO₂ BART controls do not apply to PacifiCorp unless the Regional

¹⁹ Hearing Transcript at 76, lines 19-25.

²⁰ Hearing Transcript at 31, lines 1-8.

²¹ Hearing Transcript at 37, lines 18-22.

²² Hearing Transcript at 32, lines 8-12; Sierra Club/105 [REDACTED]

[REDACTED] at Sierra 109 at 1 Executive Summary and 110 at 1 Executive Summary.

SO₂ Milestone and Backstop Trading Program fails.²³ To date the Regional SO₂ Milestone has not been exceeded and the Backstop Trading Program has not been triggered.

d. If the plant-specific emissions limits were exceeded, on what date would PacifiCorp be penalized for the exceedance?

Assuming there were unit-specific emissions limits required by law—and to CUB’s knowledge there were not—it appears from the record that an exceedance of the Regional SO₂ Milestone prior to 2018 for a particular year would trigger a six year compliance process.²⁴

e. On what date would PacifiCorp have to demonstrate compliance with any requirements resulting from the exceedance?

In Utah and Wyoming, if a milestone is exceeded in any year prior to 2018, the first control period is the calendar year that is six (6) years following the calendar year for which sulfur dioxide emissions exceeded the milestone in accordance with the SIP.²⁵ PacifiCorp would not have to demonstrate compliance until March 30 of the 6th year following the year in which there was an exceedance. If there is an exceedance after 2018, the first control period is the calendar year that is four (4) years following the inventory year in which the source exceeded the sulfur dioxide emissions threshold.²⁶ PacifiCorp would then not have to demonstrate compliance until March 30 of the 4th year following the year in which there was an exceedance.

2. Other than its PVRR(d) analysis, did Pacific Power consider any other compliance alternatives to installing the emissions controls at its BART specific units? What evidence in the record demonstrates the company's consideration of compliance alternatives such as finding an alternative generating source to meet customers' needs?

According to the record, PacifiCorp did not consider any non-coal retrofit alternatives, other than the immediate shutdown alternative that was in the PVRR(d) analysis for the costs that are included in this docket. This mindset seems to prevail to this day. When asked to “describe in more

²³ UE 246 / PAC / 1901 / Woollums / 2; Sierra Club/111 Fisher/53 PacifiCorp Naughton Power Plant AP-6042 BART Application Analysis (May 28, 2009) “PacifiCorp will not be required to install the company-proposed BART technology and meet the corresponding achievable emission limit. Instead, PacifiCorp is required to participate in the Regional SO₂ Milestone and Backstop Trading Program . . .”

²⁴ Hearing Transcript at 185 lines 2-4; Sierra Club/504 at 113; Wyo. Air Quality Standards and Regs. ch. 14, sec. 2(k)(i)(A)(I).

²⁵ Wyo. Air Quality Standards and Regs. ch. 14, sec. 2(k)(i)(A)(I); Utah Admin. Code R307-250-12(1)(a)(i).

²⁶ Wyo. Air Quality Standards and Regs. ch. 14, sec. 2(k)(i)(A)(II); Utah Admin. Code R307-250-12(1)(a)(ii).

1 detail the process the Company goes through in analyzing the emissions control equipment
2 required,” Ms. Woollums immediately stated that the Company would start by trying to identify
3 feasible controls that will achieve the requisite emissions limits and then apply for a permit.²⁷ There
4 was no discussion of review to see if the controls would be the least-cost/least-risk way to proceed.
5 Although Mr. Teply stated that “the Company does assess economics of its projects before a
6 procedure,” it is clear from the record that no IRP style least-cost/least-risk analysis was done.²⁸
7 Instead, PacifiCorp did, as Ms. Woollums inferred that the Company would do, conduct technical
8 studies to determine what would likely be required to comply with BART. Those technical studies
9 (the CH2M HILL studies) considered different technologies that could be used to comply with
10 BART. They did not consider closing the plant and investing in alternative resources or phasing out
11 the plant over time in order to reduce the BART requirements. The studies also focused solely on
12 the emissions requirements at individual plants, ignoring the regional aspect of the Regional SO₂
13 Milestone and Backstop Trading Program.

14 Once the technical studies were done and the Company believed it had determined what
15 would be technologically feasible under BART, it conducted the PVRR(d) analysis to see if there was
16 enough economic value to the life of each unit to allow for recovery of such technological
17 investments. This methodology compared the NPVRR of the investment versus the NPVRR of
18 immediate shut down. This was not an attempt to compare the investment to other alternative
19 investments; it was limited to examining whether there was enough useful life left in the plant to
20 allow economic recovery of the technological investment and return on that investment.

21 The only additional studies conducted by PacifiCorp were the September 2011 IRP
22 Supplement and the March 2012 IRP Update. The September IRP Supplement was fatally flawed
23 because it assumed that all costs incurred before 2015, including costs to meet the 2015 clean air
24 compliance, were sunk, and then looked at whether it was economic to close the plant in 2015,

²⁷ Hearing Transcript at 83 lines 2 to 10.

²⁸ Hearing Transcript at 93 lines 6-7; Hearing Transcript at 22-25.

1 which would have been after the upgrades had already been made. The model showed that the
2 Company should not make investments in a plant that was going to be closed. In its March 2012
3 IRP Update, PacifiCorp did allow its model to consider picking other resource options for the
4 limited universe of units that were studied, but that was well after the costs in this docket were
5 incurred and considered to be sunk. The costs at issue in this docket were not, therefore, included in
6 that analysis as costs that could be avoided. This was a screening analysis that was designed to
7 identify which units deserved further scrutiny and did not look at any plant phase outs. It was
8 limited to a handful of units, with the most immediate plans for additional pollution control
9 investment. These included Bridger 3 and the Hunter units, but, as previously stated, did not include
10 the investments that were at issue in this docket.

11 CUB respectfully requests that the Commission keep in mind that even if PacifiCorp did
12 conduct additional studies, none of the information from those studies, that was relevant to the
13 investments at issue in this docket, was made part of an IRP process. Failure on the part of the
14 Company to follow the IRP rules demonstrates a lack of prudence, especially when the Company
15 had begun negotiating pollution control compliance with the state of Wyoming as early as 2006.²⁹

16 **V. ARGUMENT**

17 PacifiCorp's analysis did not adequately consider alternatives to the investments that could
18 have proven to be least-cost/least-risk. The historical facts and circumstances evidence that in at
19 least three instances additional analysis would have proven that an alternative existed that was in fact
20 the true least-cost/least-risk option. Based on this analysis, CUB believes that the Company was
21 imprudent in deciding in 2008 and 2009³⁰ to go ahead with the investments without a robust analysis
that took into consideration: the cost of the investment; alternative investment paths to meet the

²⁹ Hearing Transcript at 84 lines 14-17.

³⁰ UE 246/PAC/1900/Woollums/2 lines 3-4.

1 federal Regional Haze Rules and Best Available Retrofit Technologies (BART) requirements;³¹ a
2 range of alternatives to the technologically feasible investments; sensitivities relating to fuel costs;
3 carbon regulation; and additional coal regulation, as well as whether there were options available that
4 would have lower costs. In addition, CUB believes that, even with the Company's poor analytical
5 tools (the PVRR studies), the Company should have recognized that investments in three of its
6 units—Naughton 1 and 2 and Bridger 3—were not cost-effective or prudent. CUB has offered the
7 Commission three options to respond to this imprudence: to disallow investments that are not
8 prudent, to assess a financial penalty on the Company, or to find that the investments cannot be
9 considered used and useful without examining the entire RHR investment at each plant.³² CUB
10 continues to be of the opinion that these three options provide the Commission with an appropriate
11 range of actions with which to address PacifiCorp's lack of rigorous clean air investment analysis.
12 PacifiCorp's lack of analysis and diligent reevaluation should result in a finding of imprudence in this
13 docket.

14 **A. The Projects and Costs at Issue in This Docket Should Have Been Submitted for Review**
15 **in Prior IRP Dockets; They Were Not**
16

17 Oregon's IRP Guideline 8 specifically "requires utilities, when considering long-term
18 resource commitments, to take into account the risks that external costs may be internalized in the
19 future."³³ It also requires utilities to develop and analyze a set of portfolios that cover a range of
20 potential environmental compliance scenarios to address present and future carbon dioxide,
21 nitrogen oxide, sulfur oxide, and mercury emission regulations.³⁴ Guideline 8 further directs utilities
22 to modify the projected lifetime of a resource as needed in order to be consistent with the

³¹ The Regional Haze Rule (RHR) refers to federal Clean Air Act Section 169 requirements use BART to reduce haze in national parks and wilderness areas.

³² UE 246/CUB/100 / Jenks-Feighner/16-18.

³³ UM 1056, Order No. 07--002 at 17 (Jan. 8, 2007) - *Investigation into Integrated Resource Planning*.

³⁴ UM 1302, Order No. 08--339 at Appendix C (June 30, 2008) - *Investigation into the Treatment of CO2 Risk in the Integrated Resource Planning Process*.

1 compliance scenario being analyzed.³⁵ Moreover, it requires that IRPs must be performed every two
2 years, with annual updates of the analysis during the in between years, in recognition of the fact that
3 policy, regulatory, and economic changes will affect resource strategies.³⁶ PacifiCorp did not submit
4 any of the pollution control investments at issue in this docket for IRP review until it was too late
5 for that review to make any difference.

6 If PacifiCorp had submitted these investments in its IRPs, alternatives could have been
7 considered. It was through the IRP process that alternatives to PGE's Boardman pollution control
8 investments were considered and the idea of a phase-out was developed.

9 **B. None of the Costs at Issue in This Docket Were Subjected to IRP Review**

10 While PacifiCorp claims that environmental and/or cost analyses were completed for the
11 projects³⁷ at issue in this docket, as discussed in our answer to Question 2 of the Briefing
12 Memorandum, none of the costs at issue in this docket was studied in an IRP prior to the making of
13 those investments.

14 **C. Federal and State Clean Air Regulations Are Not the Limiting Factors Here—** 15 **PacifiCorp's Lack of Creativity and Devotion to Its Shareholders Are the Limiting** 16 **Factors**

17 As noted in CUB's Pre-Hearing Brief, the Federal and State clean air regulations are not the
18 limiting factors here—PacifiCorp's lack of creativity and desire to build ratebase are the true limiting
19 factors. As long as the Company is determined to use large, poorly-analyzed investments as the
20 vehicle for earning profits for shareholders at the expense of customers, PacifiCorp will not want to
21 spell out the flexibility contained in environmental regulations. The federal rules associated with
22 BART clearly establish the relationship between the life of the plant and the pollution controls.³⁸

³⁵ UM 1302, Order No. 08--339 at Appendix C (June 30, 2008) - *Investigation into the Treatment of CO2 Risk in the Integrated Resource Planning Process*.

³⁶ OAR 860-027-0400.

³⁷ UE 246 Transcript at 23 lines 5-8.

³⁸ UE 246/CUB/200/Jenks-Feighner/13 citing to 70 Fed. Reg.39127 (July 6, 2005); *see also* Jenks-Feighner/23 line 4 to Jenks-Feighner/24 line 9, where CUB discusses the EPA examples related to modeling the useful life of a plant:

1 State enforcement of the federal Clean Air Act also provides flexibility with regard to the life of the
2 plant,³⁹ as evidenced by comments submitted in the PGE case in Oregon.⁴⁰ It was notable at the
3 Hearing—by its omission—that even MidAmerican Energy Holdings Company’s Senior Vice
4 President of Environmental Services and Chief Environmental Counsel, Cathy Woollums, was
5 unable to point the Commission to the precise provisions of the laws that the Company claims
6 forced it to install all of these environmental pollution controls at the time that it did.⁴¹ What was in
7 much sharper focus was the fact that the Company was determined to make the investments, that is
8 was making the investments on a rigid plan related to planned outages,⁴² and that it was willfully
9 blind to the opportunities it had to save customers money. In listing the priority of emission
10 reductions, PacifiCorp stated:

11 PacifiCorp’s initial focus has been on installing controls to reduce SO₂ emissions which
12 are the most significant contributors to regional haze in the western US. In addition,
13 PacifiCorp continues to rely on the rapid installation of low NOx burners to
14 significantly reduce NOx emissions. Also, the installation of five SCRs (or similar NOx-
15 reducing technologies) will be completed by 2023 and reduce NOx emissions even
16 further. PacifiCorp’s commitment also includes the installation of several baghouses to
17 control particulate matter emissions. For those units which utilize dry scrubbers,
18 baghouse have the added benefit of improving SO₂ removal. Baghouses also
19 significantly reduce mercury emissions.⁴³

20 The flaws in this plan are brought into sharp focus when the actual legal requirements with which

4. Remaining Useful Life of the Source. The remaining useful life of the source is usually considered as a quantitative factor in estimating the cost of compliance. With the exception of Apache Generating Station Unit 1, ADEQ used the default 20-year amortization period in the EPA Cost Control Manual as the remaining useful life of the facilities in its RH SIP. Without commitments for an early shut down of an EGU, it is not appropriate to consider a shorter amortization period in a BART analysis.

<http://www.gpo.gov/fdsys/pkg/FR-2012-07-20/pdf/2012-17659.pdf>.

³⁹ UE 246/CUB/200/Jenks-Feighner/14 lines 12-14 and lines 15-25; Jenks-Feighner/15 lines 1-7.

⁴⁰ UE 246/CUB/200/Jenks-Feighner/15 lines 8 – 31 through Jenks-Feighner 22 line 13.

⁴¹ “Well, the obligation under the Regional Haze Program is a federal program. However, the states have primary obligations to implement the federal regulations.” Hearing Transcript at 25 lines 6-9. “Q. So just to be clear for the record, in 2009, had EPA approved Wyoming’s Regional Haze SIP? A. No. Q. In 2009, had EPA approved Utah’s Regional Haze SIP? A. No. Q. As of today, has EPA approved either of those SIPs? A. No.” Hearing Transcript at 26 line 19 to 27 line 2. “Q. Had EPA determined that the region in which Naughton sits was a non-attainment for SO₂? A. No. Q. And finally, what year did EPA issue its MATS rule, if you know? A. The most recent version of the rule was issued in 2011, became final in April of 2012. Q. And if you know, how many years do sources have to comply with this final - - the 2012 MATS rule? A. They have three years from the date of the rule becoming final. The compliance deadline is currently April 16th of 2015.” Hearing Transcript at 27 lines 7-18.

⁴² The Company approached the planned outages as a fixed schedule rather as a more variable plan that should have been examined as part of a least-cost/least-risk analysis.

⁴³ Sierra Club/112 at 4.

PacifiCorp had to comply—including the timelines for compliance—are reviewed. As PacifiCorp itself stated:

PacifiCorp began implementing its emission reduction commitments in 2005. This was well ahead of the emission reduction timelines under the regional haze rules which require BART to be installed no later than five years following approval of the applicable Regional Haze SIP.⁴⁴

Given that the Wyoming SIP has, at the time of writing, still to be approved, PacifiCorp was indeed “*well ahead of the emission reduction timelines under the regional haze rules.*”⁴⁵ CUB will focus on the laws and rules pertaining to Naughton 1 and 2 and Bridger 3.

1. Laws and Rules Pertaining to SO₂

In reviewing the Naughton BART permit MD-6042, Ms. Woollums acknowledged that the permit does not contain any specific requirements for Naughton with respect to SO₂ controls.⁴⁶ And page 252 of that permit at condition 11 states that “PacifiCorp shall comply with all requirements of the Regional SO₂ Milestone and Backstop Trading Program in accordance with Chapter 14, Sections 2 and 3 of the WAQSR.”⁴⁷ In response, Ms. Woollums argued that:

The underlying obligation emanates from the Regional Haze Requirements. There were three states fundamentally that are participating in the Backstop Trading Program. This section or paragraph that was referenced in the permit really relies on the Backstop Trading Program which forms the cornerstone of the SO₂ requirements for the three states including Wyoming, Utah and New Mexico.⁴⁸

But Ms. Woollums was still unable to explain how that really worked, because the program is

⁴⁴ Sierra Club/112 at 4.

⁴⁵ For the record, CUB wishes to note that the Texas case to which PacifiCorp attributes that a “state can enforce its SIP even before EPA approval of the SIP” – UE 246 PacifiCorp Pre-Hearing Brief at 15 - (*See State of Texas, et al. v. U.S. EPA, No. 10-60614, August 13, 2012 (5th Cir.)*) does not stand for that proposition at all. There is in fact nothing in the Clean Air Act or the Court’s decision that says that a SIP is enforceable before it receives EPA approval. The Court specifically stated in a quote that: “[T]he Clean Air Act creates a partnership between the states and the federal government. The state proposes, though the EPA disposes. The federal government through the EPA determines that the ends—the standards of air quality—but Congress has given the states the initiative and broad responsibility regarding the means to achieve those ends through state implementation plans and timetables for compliance.” (citation omitted) In short, the SIP or SIP revision is not final until the EPA determines that it meets the statutory criteria of the CAA (in which case, the EPA must approve it.)” *Id.* at 4-5.

⁴⁶ Hearing Transcript at 29 line 25 through page 30 at line 3.

⁴⁷ Hearing Transcript at 30 lines 20-25.

⁴⁸ Hearing Transcript at 32 lines 22 to 25 and page 33 lines 1-4.

1 a regional program with no specific limits for any one unit.⁴⁹ PacifiCorp did not have any unit-
2 specific SO₂ limits with which it had to comply. In fact, Ms. Woollums ultimately acknowledged that
3 there were no source-specific BART requirements for emission limits as part of the Backstop
4 Trading Program because the program does not kick in until one of the regional milestones is
5 exceeded.⁵⁰ But later she contradicted herself, saying instead that there were emission limits of 0.15
6 pounds per million BTU SO₂ in Wyoming and 0.12 pounds per million BTU SO₂ in Utah, both of
7 which have to be met to successfully comply with the Regional SO₂ Milestones program to avoid
8 triggering the Backstop Trading Program.⁵¹ She justified this statement by saying that the states
9 required the Company to meet those limits to comply with the milestones.⁵² This statement was
10 again contradicted when Ms. Woollums later added that the Regional SO₂ Milestone and Backstop
11 Trading Program “is a regional limit, not a source-specific limit.”⁵³ In point of fact, Ms. Woollums
12 stated in regard to the Regional SO₂ Milestone and Backstop Trading Program that “the goal is to
13 always and consistently remain under the milestones. And in order to have that program be
14 acceptable to EPA, it has to be better than BART. BART for SO₂ is 0.15 pounds per million BTU.
15 So therefore, the sources that are subject to those requirements effectively, *and it doesn’t say it*
16 *explicitly*, but effectively have to be at .15 pounds or lower per million BTU for SO₂.”⁵⁴

17 On Re-Direct Ms. Woollums then stated, “Yes, that is correct,” in response to a question
18 from PacifiCorp Counsel to the effect that “even though the SO₂ Regional Milestone and Backstop
19 Trading Programs have regional emissions limits for SO₂, those are incorporated by the states into
20 either an approval order or permit on a unit specific basis, correct?”⁵⁵ But, as noted by Mr. Fisher,
21 “there are indications that the retrofit at Naughton wasn’t necessarily going to make or break that

⁴⁹ See e.g. Sierra Club/504 at 83-128; Wyo. Air Quality Standards and Regs. ch. 14.

⁵⁰ Hearing Transcript at 38 lines 7-11.

⁵¹ Hearing Transcript at 41 lines 11-20.

⁵² Hearing Transcript at 41 line 25 and at 42 lines 1-2 and again at page 50 lines 2-8.

⁵³ Hearing Transcript 43 at lines 4-5.

⁵⁴ Hearing Transcript 54 lines 7-15.

⁵⁵ Hearing Transcript at 82 lines 10-15.

1 particular target at all.”⁵⁶ Either there were or there were not legally enforceable unit-specific
2 emissions limits, and, more importantly, there was no least-cost/least-risk analysis to determine the
3 best way to meet the regional goals. The assumption that the best methodology is to ensure each
4 plant meets the “presumptive” limit is just an assumption. For example, the planned conversion of
5 Naughton 3 to natural gas reduces SO₂ in a manner that might allow a different plant to emit
6 additional SO₂. Based on the record in this case, CUB thinks that at the time PacifiCorp made its
7 pollution control investment decisions, there were no legally enforceable plant-specific limits.

8 CUB has been unable to find any enforceable limits in the federal or state statutes or rules
9 included in the record, and was able to find such limits only in the construction permits applied for
10 by PacifiCorp. It seems to CUB that PacifiCorp would like the Commission to believe the limits are
11 federally imposed when a party is attacking the state law and state imposed when a party levels an
12 attack at the federal law. CUB was unable to find such limits in either set of laws in the record. CUB
13 hopes that the Commission will not permit Ms. Woollums’ obfuscation to cloud its vision in this
14 regard.

15 The bottom line is that PacifiCorp, which carries the burden of persuasion throughout this
16 docket, has failed to prove that there were any then-enforceable pollution control emissions limits. It
17 has also failed to prove that it carried out any appropriate least-cost/least-risk analysis. Its attempts
18 to claim that the System Optimizer model could not do back in 2009 what it can do now are to the
19 contrary, since it also advised us that the PVRR(d) analysis was not supposed to make resource
20 decisions and was for use outside an IRP.⁵⁷ Moreover, when asked by Commissioner Savage if
21 PacifiCorp analyzed what would happen under the Backstop Trading Program if one or two plants
22 were shut down and other investments were made, Mr. Teply advised that he was unaware of any
23 such analysis.⁵⁸

⁵⁶ Hearing Transcript at 189 lines 13-15.

⁵⁷ Hearing Transcript at 191 lines 1-3; Hearing Transcript at 177 lines 7-17.

⁵⁸ Hearing Transcript at 169 lines 24 -25 and at 170 lines 1-3.

1 The bottom line is that PacifiCorp failed to submit these capital investment projects for
2 OPUC IRP review, thus making it impossible for the parties to do “adequate stress testing of these
3 decisions.”⁵⁹ PacifiCorp has also clearly failed to diligently review its projects. It has further failed to
4 prove that there was any valid reason not to enforce the termination provisions in its contracts—
5 CUB will write more on this later. PacifiCorp has therefore failed to prove that its installation of the
6 environmental pollution controls in this docket was necessary or prudent. Ratepayers should never
7 be required to pay for projects that were imprudent.⁶⁰

8 2. *Laws and Rules Pertaining to NO_x*

9 The WYDEQ BART Application Analysis dated May 28, 2009, sets forth NO_x limits with
10 which it will require PacifiCorp to comply in regard to Naughton Units 1 and 2. It states that for
11 those units, NO_x BART will be low-NO_x burners with advanced over fire air.⁶¹ But it also states
12 that low-NO_x burners with advanced over fire air and SCR will not be BART because of cost and
13 other factors.⁶² In regard to PM/PM₁₀, it finds that BART will be the existing ESP with FGC, but
14 BART would not be ESP with FGC and a polishing fabric filter because of cost.⁶³

15 These figures, however, are based on an assumed 20 years of operation.⁶⁴ Because BART
16 controls are limited by a State application of per-ton cost effectiveness, 20 years of operation will
17 create more pollution control requirements than a shorter lifespan. Because Naughton 1 and 2 are
18 not expected to operate past 2029, it is not clear whether the pollution control being installed to
19 reduce NO_x would have been required if PacifiCorp had requested BART controls based on the
20 actual expected life of the plant, as was done with the Apache Generating Station Unit 1 in
21 Arizona.⁶⁵ So while it is unclear what controls would have been required based on the expected life

⁵⁹ Hearing Transcript at 189 lines 24-25 and at 190 lines 1-5.

⁶⁰ UE 246/Sierra Club/200/Steinhurst/7, lines 1-9.

⁶¹ Sierra Club/111 at 48.

⁶² Sierra Club/111 at 48.

⁶³ Sierra Club/111 at 50.

⁶⁴ UE 246 / CUB / 200 / Jenks-Feighner / 23 at 5-7.

⁶⁵ UE 246 / CUB / 200/Jenks-Feighner /17 at 10.

1 of the plant, it is clear that the federal law requires that controls be installed no later than five years
2 following federal approval of the applicable Regional Haze SIP. It is also clear that the Wyoming
3 SIP has yet to be approved and that PacifiCorp therefore did not need to apply for its permits when
4 it did. Moreover, even the permits, which provide timelines from issuance, allow for extensions.

5 It therefore continues to be CUB's position that the Company should have conducted a
6 least-cost/least-risk review, including a review of alternatives to making its investments, before
7 entering into its contracts and that, to the extent contracts were already in place, PacifiCorp should
8 have reviewed the changing conditions and determined whether or not those contracts could and
9 should be canceled. PacifiCorp knew it had an obligation under Oregon law to bring all capital
10 investment projects for review in IRPs. PacifiCorp knew its capital expenditures were going to
11 increase dramatically as a result of these projects.⁶⁶ PacifiCorp's actions in not including these plans
12 in its IRPs, in failing to analyze whether there were less costly alternate resources, and in not
13 analyzing the changing conditions in the energy industry were imprudent. Review of the AP-6042
14 BART Application Analysis would have told the Company it had at least five years—from May 2009
15 to January 2015—to make any investments,⁶⁷ and that it had time to conduct a full and complete
16 least-cost/least-risk review. PacifiCorp's investment in these controls was premature and imprudent.
17 Ratepayers should not have to pay for imprudent costs.

18 **D. PacifiCorp's Initial and Modified PVRR(d) Analyses Tell Only Part of the Story**

19 CUB has argued throughout this case that the PVRR(d) analysis was not enough to support
20 PacifiCorp's actions and was not designed to determine the least-cost/least-risk approach.⁶⁸ In fact,
21 PacifiCorp itself views the study as "[REDACTED]" [REDACTED]
22 [REDACTED]:

⁶⁶ Sierra Club/112 at 5 – 8: Customer Impacts.

⁶⁷ Sierra Club/11 at 54.

⁶⁸ UE 246 CUB/100/Jenks-Feighner/25-28; CUB/200/Jenks-Feighner/31-33.

1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 PacifiCorp has relied throughout this case solely on its PVRR(d) analysis as support for its decision
5 to make these pollution control investments. PacifiCorp should not now be allowed to supplement
6 the record.

7 The plan for upgrades at Naughton 1 began at least as early as 2008. This is evidenced by the
8 historical facts in the record. In June 2008 PacifiCorp's Lead Senior Engineer Jim Doak advised
9 WYDEQ that Naughton was PacifiCorp's highest priority and that the Company would like to
10 receive the Naughton permits by March or April of 2009.⁷⁰ [REDACTED]
11 [REDACTED]
12 [REDACTED]

13 [REDACTED].⁷¹ But at the hearing, Mr. Teply stated that the initial PVRR(d) financial analysis for
14 Naughton was completed in February 2009 using the December 2008 forward price curve.⁷² The
15 initial analysis for Naughton 1 and 2 was completed in 2009 "because there was significant capital
16 expenditures stating in 2009."⁷³ He also testified that the compliance window for Naughton was
17 2008 through 2013;⁷⁴ initial expenditures for Naughton 1 started in 2008 with the [REDACTED]. By the
18 time that the February 2009 initial PVRR(d) study was done on Naughton, PacifiCorp had already
19 spent in the region of \$ [REDACTED].⁷⁵ CUB knows the Company wanted to move
20 forward with the rest of the pollution controls in March 2009 because of Mr. Doak's email, but that
21 did not happen, as evidenced by Mr. Doak's April 29, 2009, letter to WYDEQ⁷⁶ stating that

⁶⁹ CUB Confidential Exhibit 310 (*emphasis added*).

⁷⁰ CUB/Exhibit 306 Jenks-Feighner 1.

⁷¹ CUB Exhibit 302 pages 1-11.

⁷² Hearing Transcript at 145 lines 19-22; Hearing Transcript at 153 lines 8-13.

⁷³ Hearing Transcript at 104 lines 14-24.

⁷⁴ Hearing Transcript at 108 lines 5-18.

⁷⁵ CUB/302 at 10-11.

⁷⁶ CUB Exhibit 303.

1 PacifiCorp was still waiting for its permits. The permits were received in May 2009⁷⁷ and the
2 contract was signed in May 2009 for the rest of the pollution controls.⁷⁸ PacifiCorp did not do a
3 least-cost/least-risk analysis on this investment or bring it to the IRP, even though this was a
4 resource decision for this and all the other planned pollution control investments.⁷⁹ The Company
5 did not look to see what alternative resource options it had; instead, PacifiCorp simply started
6 construction and kept right on going, despite changing energy economics, slipping permit dates, and
7 the lack of an approved Wyoming SIP.

8 All of this occurred despite the fact, as conceded by Mr. Teply at the Hearing, that had the
9 pollution controls not been implemented, the Company would have been able to continue operating
10 the plant through the compliance deadline,⁸⁰ which at that time the WYDEQ stated would be “[a]
11 requirement that each source subject to BART be required to install and operate BART as
12 expeditiously as practicable, but in no event later than 5 years after approval of the implementation
13 plan revision.’ As a practical measure, the Division anticipates the requirement to install the BART-
14 determined controls by as early as 2015.”⁸¹

15 As previously discussed, the Wyoming SIP has, at the time of writing, yet to be approved.
16 The Company would not have had to do anything “expeditiously” if it had done a proper analysis
17 and determined that plant closure was appropriate and committed to it.⁸² This is important because
18 Mr. Teply noted that, had the replacement date for these units been pushed out, the time extension
19 would have made the alternative scenarios more attractive.⁸³ He also noted that what was driving the
20 2011 and 2012 timelines was the completion of the installations during the planned outage cycles.⁸⁴

⁷⁷ UE 246 / PAC / 502 / Teply / 1

⁷⁸ UE 246 / PAC / 500 / Teply / 37 at 5

⁷⁹ Hearing Transcript at 162 lines 13 -25; Hearing Transcript at 164 lines 17-19 “Q. But the explicit investments were not to a single out in an IRP; is that correct? A. correct.”

⁸⁰ Hearing Transcript at 105 lines 1-6.

⁸¹ Sierra Club 111 at 54.

⁸² See CUB / 200 / Jenks-Feighner / 35-36; CUB / 200 / Jenks-Feighner / 38

⁸³ Hearing Transcript at 105 lines 15-22. *But see* Hearing Transcript at 113 lines 1-4 where he stated that a “ten million dollar investment would not have forced PacifiCorp to market for a 160 megawatt facility or 220 megawatts.”

⁸⁴ Hearing Transcript at 115 lines 18-22; Hearing Transcript at 119 lines 2-7; Hearing Transcript at 120 lines 3-14.

⁸⁵ But if PacifiCorp had done a proper analysis that accounted for changing factors in the energy sector, and determined that Naughton 1 and 2 should be phased out, the outage cycles would not have mattered and millions of customer dollars could have been saved. PacifiCorp was tied to its PVRR(d) analysis, which told only part of the story. As elicited on redirect by Ms. Wallace:⁸⁶

Q. When Commissioner Savage asked you if the PVRR(d), the way the PVRR(d) analysis was conducted was essentially the resource decision, did you understand him to mean a resource decision in the context of integrated resource planning?

A. Perhaps not. I may have misunderstood that question.

Q. Because in terms of choosing between continuing to operate and the coal plant, the -- the PVRR(d) analysis isn't designed to allow the Company to choose -- determine whether or not proceeding with this and continuing to operate this plant is the correct decision from a resource planning perspective, is it?

A. Through the PVRR, how they work is those assessments were completed outside the IRP realm.

Q. And they're designed for a more limited purpose?

A. It was completed for project justification projects, economic review.

Q. The purpose wasn't to determine that continuing to operate the coal plant was the correct decision from a resource planning perspective?

A. I wouldn't say it was reviewed in that context at that time.⁸⁷

Ms. Wallace's line of questioning, while confirming that the PVRR(d) was insufficient in its analysis, also serves to demonstrate that the Company was not preparing for, and did not submit these projects for review in, an IRP. Completing a proper IRP analysis and looking at pollution control investment alternatives would have told the Company so much more. PacifiCorp was imprudent in failing to conduct an in-depth analysis of alternative resource options, imprudent for failing to bring these investments to the Commission for IRP review and analysis, and imprudent for prematurely making these investments.

There are modified versions of PacifiCorp's PVRR(d) studies in this record. PacifiCorp claimed the February 2009 study as its original study. CUB replicated this study, with the only

⁸⁵ Hearing Transcript at 174 lines 18-25 and at 175 lines 1-5.

⁸⁶ The Hearing Transcript references Ms. McDowell as the attorney defending PacifiCorp witnesses Woollums and Teply in the environmental controls portion of the hearing, but it is CUB's recollection that it was Ms. Wallace that was the attorney defending PacifiCorp witnesses during this portion of the hearing.

⁸⁷ Hearing Transcript at 176 lines 18-25 and at 177 lines 1-17.

1 change made being the 1/1/14 expected date for pollution control requirements; CUB found that
2 the PVRR(d) showed the project was not cost-effective.⁸⁸ PacifiCorp responded by claiming that the
3 “objectively reasonable” decision should in fact reflect cost effectiveness at the time of the contract
4 signing in May.⁸⁹ It made this claim because there was a temporary increase in the generally
5 downward trending Forward Price Curve at the time of the contract signing, so that if PacifiCorp
6 had in fact done its PVRR study in May (at the time of the contract signing), it would have resulted
7 in the project being cost-effective even with a 1/1/14 expected date for pollution control
8 requirements. CUB’s revisit of the PVRR(d) analysis in August 2012 confirms, however, that if
9 allowed to play out, the downward trend in forward price curves would have made, and did make,
10 the investment uneconomic.⁹⁰

11 PacifiCorp’s argument for prudence is dependent upon acceptance of the theory that an
12 objectively prudent utility should have revisited the investment in May before the contract was
13 signed, *but not* revisited it again even though market conditions were changing. Given that two of the
14 three modified PVRR runs with the 1/1/14 anticipated pollution control date show that the
15 investment was not cost effective,⁹¹ that the contract in question allowed PacifiCorp to terminate at
16 any time,⁹² and that contract [REDACTED], PacifiCorp’s
17 actions in proceeding with this investment were imprudent.

18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]

⁸⁸ UE 246 CUB / 200 / Jenks-Feighner / 34-35

⁸⁹ UE 246 / PAC / 2000 / Teply / 5-6/

⁹⁰ UE 246 CUB / 200 / Jenks-Feighner / 34-35

⁹¹ CUB Exhibit 211.

⁹² UE 246 / CUB / 200 / Jenks-Feighner / 35

1 [REDACTED]⁹³ PacifiCorp should have been keeping an eye on this investment and should have
2 been updating its analysis. Prudent management of a project does not end when the contract is
3 signed, it continues for the duration of the project. If the Company was prudently managing the
4 project, it ultimately would have come to realize that it was uneconomic.

5 CUB notes that there are some other discrepancies with PacifiCorp's *modified* PVRR(d)
6 analysis. As Mr. Teply testified, if PacifiCorp had been planning to replace the Naughton 1 unit in
7 2014, it would have reduced its capital expenditures on the plant in the years approaching that
8 deadline. The Company did not, however, include those reduced expenditures in the analysis: "We
9 didn't assess those years obviously so they were in both versions of the assessment."⁹⁴ He also stated
10 that the Company wouldn't have had the same magnitude of cap ex because it "probably wouldn't
11 have had a major unit outage two years prior to taking the unit offline."⁹⁵ PacifiCorp's additional
12 *modifications* to the PVRR(d) model had the effect of making the alternate resource options look less
13 attractive.

14 **E. Jim Bridger - the PVRR(d), Scrubber Upgrades and SCR**

15 According to Mr. Teply, the purpose of the screening analysis that PacifiCorp completed and
16 reported on in its 2011 IRP Update issued March 2012 "was to develop a relative ranking among
17 individual BART-eligible coal units as a means to prioritize which BART-eligible units should be
18 targeted for a more detailed analysis using the System Optimizer model."⁹⁶ When asked at the
19 Hearing where Bridger was placed in that ranking, he replied, "Bridger would have been near the
20 top. I don't know the exact ranking likely because of the upcoming SCR investments at the time that
21 this - - the IRP update would have been filed."⁹⁷ PacifiCorp claims that the subsequent System
22 Optimizer PVRR(d) analysis for Jim Bridger Units 3 and 4 continued to support investment in the

⁹³ CUB Exhibit 302, 10-11.

⁹⁴ Hearing Transcript at 130 lines 19-25.

⁹⁵ Hearing Transcript at 131 lines 1-8.

⁹⁶ CUB/Exhibit 314 Jenks-Feighner/1 at questions and answers (b).

⁹⁷ Hearing Transcript at 141 lines 16-21.

1 scrubber project at Bridger 3.⁹⁸ CUB asked, in Data Request 44, for information related to the
2 making of that decision and was told by PacifiCorp that:

3 The Company has not yet made a final decision to construct the selective catalytic
4 reduction (SCR) systems on Jim Bridger Unit 3 and Unit 4, although installation of
5 these systems, or alternative add-on NOx control systems capable of achieving NOx
6 emissions of 0.07 lb/MMBTU on a 30 day rolling average is currently required by
7 the state of Wyoming under its Regional Haze state implementation plan. The
8 Company therefore does not have any internal approval documents authorizing
9 construction of these investments, and will not begin the internal approval process
10 until the Certificate of public Convenience and Necessity proceeding in Wyoming
11 and the Company's voluntary procurement review in Utah have been successfully
12 completed; and all other necessary permitting requirements are met.⁹⁹

13 At the Hearing Mr. Teply stated that "The Wyoming CPCN process as well as the Utah voluntary
14 procurement pre-approval process are underway. We have not yet received intervenor comments but
15 filings have been made. Schedules are being established for those proceedings. So I would say the
16 Company's initial submittal in that regard has been completed."¹⁰⁰ "The Company's
17 recommendation in the CPCN filing in the State of Wyoming, as well as in the Utah pre-approval
18 process, is to proceed with the investment of SCR equipment on Jim Bridger Units 3 and 4."¹⁰¹ And
19 so the Company continues to pursue these investments without conducting full and complete
20 evaluation of alternative resource options and without bringing these investments to the OPUC for
21 IRP review. For further CUB arguments related to Bridger, please see CUB's Pre-Hearing Brief.

22 In its Pre-Hearing Brief CUB also objected to the Bridger 3 scrubber upgrade on the
23 grounds that the scrubber is not used and useful until the SCR is installed. Additional information
24 on CUB's *used and useful* argument is set forth below.

25 **F. Should Marginally Positive or Marginally Negative PVR(d) Results Give the Company**
26 **Pause When Deciding Whether to Make Pollution Control Investments?**

27 At the Hearing Commissioner Bloom asked Mr. Teply about a statement in Mr. Teply's

⁹⁸ PAC/1500 Teply/28 at lines 6-14; Hearing Transcript at 140 lines 1-6.

⁹⁹ CUB/Exhibit 312/Jenks-Feighner/1.

¹⁰⁰ Hearing Transcript at 144 lines 3-9.

¹⁰¹ Hearing Transcript at 144 lines 14-18.

1 testimony to the effect that marginally positive or marginally negative PVRR(d) results don't
2 necessarily indicate that shutting down a particular unit is in the best interest of the ratepayers.
3 Commissioner Bloom asked, "And would the opposite of that be true? In other words, that it
4 wouldn't necessarily indicate that it would be prudent to go to that expense?" Mr. Teply replied that
5 "You could make that argument."¹⁰² CUB appreciates Commissioner Blooms question because CUB
6 has argued forcefully throughout this case that marginally positive or marginally negative PVRR(d)
7 number should have given the Company pause. PacifiCorp should not have made the investments in
8 Naughton 1 and 2 and Bridger 3 based upon the information then known or knowable to
9 PacifiCorp as a result of its PVRR(d) analysis and changing energy sector factors.

10 CUB was interested to hear Mr. Teply's discussion of the objectively reasonable facts that
11 the Company applies in making resource decisions, especially given the question about reliance on
12 marginally positive and marginally negative PVRR(d) results. The factors given were: CO₂ prices,
13 price curves, natural gas, environmental compliance, and BART analyses. While CUB wishes that
14 PacifiCorp had performed a robust least-cost/least-risk analysis around these objectively reasonable
15 factors, it notes that the list is still, after all we have been through in this docket and in LC 52,
16 missing key factors: the effect of alternative closure dates, of alternate resources, and the effect of
17 OPUC IRP analysis and findings.

18 PacifiCorp should not have proceeded with investments of this magnitude without
19 additional study of the marginally positive and marginally negative PVRR(d) results. PacifiCorp, as
20 discussed in other sections of this brief, should have brought these investments to the OPUC for
21 IRP analysis. CUB respectfully requests that the Commission remind the Company that without IRP
22 acknowledgement of its investment plans, it is at increased risk of being found imprudent in the
23 future—as it should be found imprudent today—for proceeding on the basis of limited analysis that
24 showed only marginally positive PRVV(d) results.

¹⁰² Hearing Transcript at 170 lines 10-19.

G. The Commission Must Not Let PacifiCorp's Attempts to Make Its Investment Decisions Look Financially Acceptable Distract the Commission From the Main Issue of This Docket—PacifiCorp's Prudence Or Lack Thereof

PacifiCorp tries to downplay its failure to conduct least-cost/least-risk investments through several distinct arguments. First, the Company claims that it has no more investments to make in Naughton 1 and 2 in order to comply with the RHR.¹⁰³ Second, it claims that the costs to close PGE's Boardman plant early will be greater than the costs spent on its Naughton plants.¹⁰⁴ Third, PacifiCorp argues that it could not have known about the options to change the closure dates because the Boardman decision did not come until January 2010. Fourth, it states that Public Service Oklahoma's costs to close its coal plant early will be greater than PacifiCorp's costs to install pollution controls at Naughton.¹⁰⁵ Fifth, the Company points to alleged errors in CUB's analysis, claiming it is incorrect for a variety of reasons, including that CUB left decommissioning costs out of its PVRR(d) analysis.¹⁰⁶

The Commission must not let itself be distracted by these arguments. PGE did the right thing in bringing its Boardman pollution control issues to the IRP—it discovered that phasing out Boardman was the least-cost/least-risk option when scored against other options in its IRP.¹⁰⁷ And while PGE's final decision to request to close the plant in 2020 did not come until January 2010, the process that it was going through, the laws it was considering, and the statutes and rules by which it was attempting to abide were all available for public review and analysis. CUB will always celebrate the day in January 2010 when PGE publicly announced its intention to go with the 2020 closure

¹⁰³ Hearing Transcript at 177 lines 18-25 and at 180 line 1 and at 211 lines 14-17; *But see* Hearing Transcript at 201 lines 19-25 and 211 at lines 1-3, where Mr. Jenks points out that EPA has not signed off on the Wyoming SIP, so the final rules for Wyoming are as yet unknown.

¹⁰⁴ Hearing Transcript at 203 lines 19-22; and at 206 lines 5-9.

¹⁰⁵ Hearing Transcript at 204 lines 14-22.

¹⁰⁶ Hearing Transcript at 205 lines 18 – 25 and at 206 lines 1-4.

¹⁰⁷ In this docket, CUB did not focus on the costs of the Boardman phase-out, beyond citing one example, because the cost of the Boardman phase-out has nothing to do with PacifiCorp's units. States use a per-ton cost of pollution removed to determine BART cost effectiveness limits. Basic math shows that the difference between 20 years of pollution and 5 years of pollution will reduce the pollution removed by a particular control by 75%, assuming relatively constant generation. The best way to estimate the cost of pollution controls associated with phasing out a plant is to scale down from the controls required to run the plant for 20 years. UE 246 / CUB / 200 / Jenks-Feighner / 23 at 5-7.

1 plan, but the loud celebrations of that day should not be allowed to obscure the very public IRP
2 process that PGE engaged in under the glare of the local media. Because of the IRP process, the
3 Commission and DEQ were able to work out a resolution that will save PGE customers millions of
4 dollars.¹⁰⁸ Of note, PGE was working with the same federal laws and regulations that PacifiCorp is
5 now holding up as shield for its actions.

6 On the other hand, PacifiCorp failed to bring any of the pollution control investments in
7 this docket to an IRP until the costs were all sunk; no SIP has been approved for the State of
8 Wyoming, so it is incorrect for PacifiCorp to state definitively that there are no more investments
9 that need to be made at Naughton 1 and 2 in order to be compliant with the federal law. The costs
10 to do work on one plant or the costs to close another plant do not make good comparators because
11 each plant needs different things; and the fact that CUB's rerun of the PVRR(d) study included the
12 assumptions from PacifiCorp's PVRR(d) studies, but PacifiCorp now criticizes its own assumptions.
13 All of this goes to show the need for the Company to have done a full and complete least-cost/least-
14 risk study before commencing on its pollution control investment spree. PacifiCorp must not be
15 rewarded for bad behavior in failing to conduct the required least-cost/least-risk analysis—behavior
16 that will likely cost its customers millions of unnecessarily spent dollars for years to come. As Mr.
17 Jenks stated in his testimony, PacifiCorp's actions were imprudent because it failed to do the
18 required analysis before investing in substantial pollution controls.¹⁰⁹

19 And just to dot all our "i"s and cross all the "t"s in terms of PacifiCorp's likely arguments,
20 even if WYDEQ or EPA ultimately approves the Wyoming SIP, it will not mean that PacifiCorp
21 engaged in least-cost/least-risk planning to obtain compliance with it. As noted by Mr. Jenks:

22 The SIP process is not looking for the least cost way to manage a utility's generating
23 access. It's looking at pollution control of particulates, NOx and SO₂ so it's not an
24 attempt to do that.

25
26 When we earlier referred to the PGE IRP in my cross-examination, that's a good

¹⁰⁸ UE 246 CUB/100/Jenks-Feighner/18, lines 7-8.

¹⁰⁹ Hearing Transcript at 208 line 25 and at 209 lines 1-20.

1 model of how you evaluate 2020 closures and other options with it and try to find
2 that least cost approach to pollution control including the options of -- of not
3 continuing with that plant or phasing out that plant. So that -- that to me is really the
4 model of how utilities ought to be doing it.¹¹⁰

5 PacifiCorp's arguments must fail. Companies cannot be rewarded for failing to conduct
6 required least-cost/least-risk analysis, especially when the result is the unnecessary investment of
7 millions of dollars in unnecessary pollution control devices.

8 **H. Even When Projects Have Taken Years to Permit and Standards Have Changed During**
9 **Those Years, PacifiCorp Has Failed to Revisit the Need for These Pollution Controls**

10 There is a significant period of time between when a proposal is made and when a retrofit is
11 completed. Even when that process has taken many months, even years, PacifiCorp has failed to
12 update its plans and to reevaluate its needs.¹¹¹ PacifiCorp's excuse is, according to Ms. Woollums,
13 "You know, today if you looked - - yes, there would be other options, but back then states were
14 looking at controls, pure and simple."¹¹² But contrary to what Ms. Woollums states, the *historical facts*
15 show that what would have been simple was to assess what could have been done in lieu of
16 compliance with costly controls—switching status to a peaker plant, repowering with another fuel
17 source, or phased shutdown. All of these options could have been, and should have been, explored
18 during IRPs. "However, as uncertainty surrounding the pending regulation dragged on, PacifiCorp's
19 emission reduction plan became a policy that was driven more by internal business decisions than
20 external regulatory compliance obligations."¹¹³ "PacifiCorp refused to deviate from its . . . Plan even
21 when it became clear that the Company's proposed emission control projects were either
22 unnecessary, too expensive, or were not yet required given the uncertain compliance deadlines for
23 pending regulations."¹¹⁴ The Naughton SO₂ scrubbers and the low-NOx burners are a prime

¹¹⁰ Hearing Transcript at 214 lines 12 – 25 and at 215 lines 1-3.

¹¹¹ "Reevaluation of the economics of projects after the contracts were executed or before beginning construction of a project did not typically occur, because at that time there was no material reason to conduct such reevaluations." UE 246 PacifiCorp Pre-Hearing Brief at 26.

¹¹² Hearing Transcript at 56 lines 19-21.

¹¹³ Sierra Club Pre-Hearing Brief at 3 lines 20-22 and at 4 line 1.

¹¹⁴ Sierra Club Pre-Hearing Brief at 4 lines 14-17.

example of this.

I. All of the Pollution Upgrades at Issue in This Docket Related to Naughton 1 and 2 and Bridger 3 Were Premature at Best and Unnecessary at Worst

i. SO₂ Scrubbers

PacifiCorp's application permit for Naughton included approximately \$279 million in capital expenditures for the SO₂ scrubber projects at Units 1 and 2.¹¹⁵ The SO₂ scrubbers were not required by any state or federal statute, regulation, or permit.

As discussed previously, the Regional SO₂ Milestone and Backstop Trading programs are regional. There are no unit-specific limits for SO₂ under the Regional SO₂ Milestone program, as implemented in either Wyoming's proposed SIP or Utah's proposed SIP. Wyoming does not have an approved state SIP. More importantly, in the event that the SO₂ milestone is exceeded prior to 2018, the first control period is the calendar year that is six years following the calendar year for which SO₂ emissions exceed the milestone.¹¹⁶ Given that no violation of the Regional SO₂ Milestone has been found to date,¹¹⁷ the Backstop Trading Program has not been triggered. And, the fact that Naughton 3 is slated to convert to natural gas reduces the need for other units to reduce SO₂ under the Regional SO₂ Milestone program. In any case, PacifiCorp would have at least six years from today, plus however many years that there is no violation, during which to come into compliance in relation to SO₂. PacifiCorp had plenty of time to conduct least-cost/least-risk studies to see if scrubbers were the right way to proceed, but the Company failed to avail itself of those opportunities. In point of fact:

Regional emissions have continued to decrease, and many of the reductions that were estimated to occur near the end of the program have occurred early. Because emissions are ***significantly below the milestones***, it is unlikely that emission inventory discrepancies would change the determination that the SO₂ milestones have been met, therefore making the audit result less critical.¹¹⁸

¹¹⁵ UE 246/Sierra Club/100 Fisher/4.

¹¹⁶ Hearing Transcript at 58 lines 5-12.

¹¹⁷ Hearing Transcript at 27 lines 7-9 no violation as of 2009; Hearing Transcript at 38, lines 7-11.

¹¹⁸ Sierra Club/505 at 2 (*emphasis added*). We note that on the same page it states that Wyoming has 43 sources that are included in the milestone inventory.

1
2 This is really important. As noted by Commissioner Savage, “Why would this be significantly below
3 limits if everybody is going right to the presumptive target? Are some plants being shut down? What
4 other factors are entering into it?”¹¹⁹ PacifiCorp has failed to put any information in the record—
5 other than its oral testimony—that supports its arguments that there were presumptive limits that
6 required it to act immediately. Ms. Woollums’ statements that the Company’s emissions were
7 ***significantly below the milestones*** because of Utah’s lower limits; the fact that Wyoming included
8 sources other than utilities in its state plan and the fact that some facilities were shut down¹²⁰ is not
9 supported by PacifiCorp with any documentation. It is also rebutted in the record by Sierra Club’s
10 Exhibit 505, the WRAP SO₂ Milestone Tracking Process Audit. PacifiCorp has failed to show any
11 reason why it should have acted when the region was ***significantly below the milestones***. Had
12 PacifiCorp brought its proposed investments into the IRP, they could—and should—have been
13 studied, and the requirements of the Backstop Trading Program would have been reviewed along
14 with the Wyoming SIP. PacifiCorp did not do this, and has failed to carry the burden of persuasion
15 that its actions in proceeding with the pollution control investments were prudent. Commissioner
16 Savage would do well to look to Sierra Club Exhibit 510—the January 19, 2012 “2010 Regional SO₂
17 Emissions and Milestone Report”—for answers to his questions about what might be causing the
18 region to be ***significantly below*** the milestones.¹²¹ The fact that PacifiCorp, through its
19 improvements to Dave Johnston Unit 3 and Jim Bridger Unit 1, may have had some small part in
20 this SO₂ reduction¹²² does not change the fact that PacifiCorp acted prematurely and that it did not
21 bring the projects at issue in this docket to the IRP process for review.

22 This finding of prematurity is further compounded by the fact that the first solid deadline

¹¹⁹ Hearing Transcript at 60 lines 4-8.

¹²⁰ Hearing Transcript at 60 lines 4-25 and at 61 lines 1-8.

¹²¹ Sierra Club 111 at 52 also provides a snap shot of how emissions levels were falling.

¹²² Sierra Club Exhibit 510 at 16.

1 for the Regional SO₂ Milestone program appears to be 2018.¹²³ So even if a milestone were to be
2 exceeded prior to 2018, PacifiCorp would have six years to meet any compliance obligations.¹²⁴
3 PacifiCorp at that time would also have the option of purchasing allowances for compliance
4 purposes,¹²⁵ if that were more cost-effective than investing in control technologies. Again, this points
5 to the fact that PacifiCorp's actions were premature, and as such were imprudent.

6 CUB also notes that when questioned by Commissioner Bloom with regard to its SO₂
7 permits, as to what the date for compliance would have been had PacifiCorp not filed a for a permit,
8 Ms. Woollums stated that that was a "difficult question to answer" because there was a lot of
9 negotiation that "goes on in advance of memorialization of emission limits, etc., in the permits."¹²⁶
10 She went on to say that "from an SO₂ perspective it was clear by the states that we had to achieve
11 those limits and those were actually incorporated into some of the construction permits and
12 operating permits that [the Company] applied for . . ." She finished by stating she could not give him
13 a date because "it was already upon us."¹²⁷ In continuing his questioning, Commissioner Bloom
14 elicited the additional statement that "the projects were really tied to the outage schedule and so to
15 the extent there may have been a different technical compliance deadline for some of the NO_x
16 projects, [PacifiCorp] fit those projects into that existing outage schedule so as not to take another
17 outage to tie in controls."¹²⁸ In other words, having already selected the emissions compliance
18 number, PacifiCorp then picked the date to do the project to fit with its planned outage schedule
19 rather than the actual statutory deadline for compliance with any Regional Haze requirement. Thus,
20 it appears from the record that there were no statutory laws or rules requiring compliance.
21 PacifiCorp applied for permits which then required it to abide by specific emissions limits within
22 specific timelines. Regardless of the fact that PacifiCorp was requested by WYDEQ in 2006 to do an

¹²³ See Sierra Club/504 at 17.

¹²⁴ Wyo. Air Quality Standards and Regs. ch. 14, sec. 2(k)(i)(A)(I).

¹²⁵ Hearing Transcript at 74 lines 5-10.

¹²⁶ Hearing Transcript at 76 lines 11-18.

¹²⁷ Hearing Transcript at 76 lines 19-25.

¹²⁸ Hearing Transcript at 77 lines 20-25 and at 78 lines 1-9.

1 initial BART analysis,¹²⁹ and that the results of that analyses would form the basis for WYDEQ's
2 pollution control requirements on the final BART analyses for NOx and PM but not for SO₂,¹³⁰ the
3 fact remains that PacifiCorp did not have to apply for construction permits when it did.

4 And, furthermore, when WYDEQ did issue a BART Application Analysis related to AP-
5 6042,¹³¹ it discussed the fact that Naughton 1, 2, and 3 are all BART eligible; outlined what a
6 complete BART analysis of proposed projects for those units entailed; set forth the pre-2005
7 emission limits and the proposed post pollution control limits—including the presumptive
8 0.15lb/MMBTU; noted that the original construction plan had been delayed due to a pending Air
9 Quality permit; set out the new construction schedule; and then stated:

10 ***Presumptive SO₂ limits of 95% reduction or 0.15lb/MMBTU and presumptive***
11 ***NOx limits based on unit type and coal type, do not apply to the three***
12 ***Naughton units because the total generating capacity of the facility is below***
13 ***750 MW. However, the Division required additional analysis of potential***
14 ***retrofit controls for NOx, SO₂ and PM/PM₁₀ taking into consideration all five***
15 ***statutory factors before making a BART determination.***¹³²
16

17 In discussing the reason for those additional analyses, the report noted that, “As mentioned earlier
18 in this analysis, BART presumptive SO₂ levels do not apply to Naughton. However, PacifiCorp used
19 the presumptive SO₂ levels for uncontrolled units, 95% emissions reduction or 0.15lb/MMBTU, as
20 a reference for comparison.”¹³³

21 WYDEQ's final decision on the matter states:

22 ***Therefore, in accordance with §308(e)(2), Wyoming's §309 Regional Haze***
23 ***SIP, and WAQSR Chapter 6, Section 9, PacifiCorp will not be required to***
24 ***install the company-proposed BART technology and meet the corresponding***
25 ***achievable emission limit. Instead, PacifiCorp is required to participate in the***
26 ***Regional SO₂ Milestone and Backstop Trading Program authorized under***
27 ***Chapter 14 of the WAQSR.***¹³⁴

28 This was the May 28, 2009 report entered the same month that the contract was signed for making

¹²⁹ Hearing Transcript at 88 lines 4-8; Exhibit PAC/1901 at 1-2.

¹³⁰ Exhibit PAC/1901 at 2; Hearing Transcript at 88 lines 17-25 and at 89 line 1.

¹³¹ Sierra Club/111.

¹³² Sierra Club/111 at 7 (*emphasis added*).

¹³³ Sierra Club/111 at 23.

¹³⁴ Sierra Club/111 at 53 (*emphasis added*).

1 the pollution control upgrades.¹³⁵ So the upgrades were not required by law to meet the SO₂ limits,
2 but the Company received permission to make them and went ahead and did so. PacifiCorp's
3 regulatory compliance issues were self inflicted, not specifically required by law, not specifically
4 required within the timelines followed, and not least-cost/least-risk. See Sierra Club Exhibit 105.
5 That construction permit applied for by PacifiCorp—Permit No. MD-5156—was issued on May 20,
6 2009, in regard to modifications at Naughton Units 1 and 2 (and 3) and provides approval to
7 PacifiCorp to complete its pollution control investments on each unit.¹³⁶ [REDACTED]
8 [REDACTED]
9 [REDACTED].¹³⁷ [REDACTED]
10 [REDACTED]
11 [REDACTED].¹³⁸
12 [REDACTED]
13 [REDACTED].¹³⁹ [REDACTED].¹⁴⁰ When
14 asked what federal law the Company was complying with when it applied for this permit, Ms.
15 Woollums replied that the Company was complying with the Regional Haze Requirements that are
16 set forth in 40 CFR, Part 50 or 51.¹⁴¹ But Wyoming had stated one week after the permit was issued
17 that PacifiCorp did not have to comply with those limits.¹⁴²

18 Another mention of the emissions limits in the record is contained in the PAC Exhibit 2003
19 and relates to Hunter Units 1 and 2, which are located in Utah. Contained within PAC Exhibit 2003
20 is an Approval Order dated March 13, 2008, for the State of Utah DEQ, which lists the post
21 pollution control construction SO₂ limits as 0.12lb/MMBTU heat input, based on a 30 day rolling

¹³⁵ CUB Exhibit 212.

¹³⁶ UE 246/PAC/500/Teply/1-2.

¹³⁷ Sierra Club/105 at 1-2.

¹³⁸ Sierra Club/105 at 2 – section 8 at Unit 1 ii. 2.

¹³⁹ Sierra Club/105 at 3.- section 8 at unit 1, ii. 2. b.

¹⁴⁰ Sierra Club/105 at 4 – section 8 at Unit 2. ii. 2. and 2.b.

¹⁴¹ Hearing Transcript at 87 lines 3-5 and again at line 25.

¹⁴² Sierra Club 111/Fisher 53.

1 average. CUB was unable to locate any other documents, statutes, rules, or other materials set forth
2 in this record that memorialize these figures or discuss their origin. PacifiCorp has therefore failed to
3 carry the burden of proof in this matter.

4 CUB finds it deeply compelling that if one looks at the completion dates for PacifiCorp's
5 pollution control investments at Naughton and Bridger, that those projects were not scheduled to be
6 completed until between November 2011 and May 2012. Thus those plants were not even included
7 in the audit results which showed that the region was already *significantly below* the milestones.¹⁴³

8 ***ii. NOx – The Low-NOx Burners at Naughton 1 and 2 and the SCR at Bridger 3***

9 PacifiCorp also was premature in regard to pollution control investments for NOx.
10 PacifiCorp's application included approximately \$17.5 million in capital expenditures for the low-
11 NOx burners at Naughton Units 1 and 2.¹⁴⁴ As Sierra Club notes, unlike with SO₂, PacifiCorp can
12 point to permits that require installation of low-NOx burners.¹⁴⁵ Again, CUB thinks PacifiCorp was
13 premature in applying for the construction permits that resulted in these emissions limits being set.
14 The "*historical facts and circumstances*" demonstrate that the earliest possible compliance date for NOx
15 was 2015. "As a practical measure, the Division anticipates the requirement to install the BART-
16 determined controls to occur as early as 2015."¹⁴⁶ WYDEQ based its assessment on the federal rule
17 that requires compliance within five years: "Since the 5-year control installation requirement is stated
18 in the federal rule it applies to all of PacifiCorp's units requiring additional BART-determined
19 controls."¹⁴⁷ Thus, PacifiCorp knew, or should have known, given that there was—and is—no
20 approved Wyoming SIP in place, and BART eligible units have five years from the date of the SIP
21 becoming enforceable to make any necessary and appropriate pollution control investments, that
22 PacifiCorp itself had at least five years in which to install pollution controls if such installation was

¹⁴³ But see Hearing Transcript at 62 lines 9-17 where Ms. Woollums claims that the projects were going online simultaneously with the WRAP SO₂ Milestone Tracking Process Audit issued on March 22, 2012.

¹⁴⁴ UE 246 Sierra Club/100 Fisher/4.

¹⁴⁵ Sierra Club Pre-Hearing Brief at 21 lines 4-7.

¹⁴⁶ UE 246/Sierra Club/11 Fisher/54.

¹⁴⁷ UE 246/Sierra Club/11 Fisher/54.

appropriate, i.e. it was the least-cost/least-risk thing to do.¹⁴⁸ However, on January 25, 2007, PacifiCorp submitted its construction permit application for installation of low-NOx burners to the State for review.¹⁴⁹ No compliance deadlines were yet in place. This application was updated on March 7, 2008, and demonstrated the intent to install the burners between September 17 and November 12, 2011 at Naughton Unit 1 and between March 24 and May 19, 2012 at Naughton 2.¹⁵⁰ In other words, prior to completing any least-cost/least-risk analysis, and prior to the implementation of any state or federal unit-specific emissions laws, PacifiCorp submitted its applications to construct these projects. PacifiCorp was premature in its requests and in its construction of the low-NOx burners at Naughton 1 & 2.

PacifiCorp was also premature in its requests and in its construction of the NOx SCR at Bridger 3. CUB knows this because on February 26, 2010, PacifiCorp filed an appeal of the ruling on the permits for which it had voluntarily applied.¹⁵¹ That appeal resulted in a settlement agreement that states:

(c) NOx Control For Bridger Units 3 and 4 – With respect to Bridger Units 3 and 4, PacifiCorp shall: (i) install SCR; (ii) install alternative add-on NOx control systems; **or (iii) otherwise reduce NOx emissions** to achieve a 0.07lb/MMBTU 30-day rolling average NOx emissions rate. These installations shall occur, and/or this emission rate will be achieved, on Unit 3 **prior to December 31, 2015**¹⁵²

But even today there is still no approved SIP for Wyoming.

PacifiCorp's actions in prematurely requesting NOx permits and installing NOx pollution control investments were imprudent.

J. PacifiCorp Did Not Have to Proceed—the Contracts Could Have Been Terminated and the SIP Was Not Approved

¹⁴⁸ The Wyoming regulations implementing BART state: 'Any control equipment under a permit issued in this section shall be installed and operated as expeditiously as practicable but in no even later than five years after the United States Environmental Protection Agency's approval of Wyoming's State Implementation Plan revision for Regional Haze. Sierra Club/111 Fisher/54.

¹⁴⁹ Sierra Club/105

¹⁵⁰ Sierra Club/508.

¹⁵¹ UE 246 PacifiCorp Cross Exhibit 2309 – Appeal and Petition For Review of Bart Permits at 1-2.

¹⁵² UE 246 PacifiCorp Cross Exhibit 2309 – BART APPEAL SETTLEMENT AGREEMENT at 2.(*emphasis added*).

1 The *historical facts and circumstances* evidence that PacifiCorp had EPC contracts related to
2 Naughton 1 and 2 and Bridger 3. Each of these contracts contained termination clauses. As
3 previously discussed in CUB’s Pre-Hearing Brief, PacifiCorp has stated that “[e]mission reduction
4 projects of the number and size described in this testimony take many years to engineer, plan, and
5 build. . . In other words, it is not practical, and is unduly expensive for customers, to expect to build
6 these emission reduction projects all at once or even in a compressed time period.”¹⁵³ This makes
7 nonsense out of PacifiCorp’s claims that it did not make any decisions on the Naughton 1 project
8 until the signing of the contract in May 2009. While May 2009 was the date to give the contractor
9 the notice to proceed, May 2009 was clearly several months after the Company had actually made
10 the decision to construct the project, as clearly evidenced by the *historical facts* contained in the
11 discussion of the [REDACTED]
12 [REDACTED], and which listed out all the Naughton construction milestones, including these later pollution
13 control projects. But, as previously discussed, what the contract and decision dates for the
14 contractor to proceed could have provided was a chance to revisit PacifiCorp’s prior decision.¹⁵⁴ The
15 *historical facts* demonstrate, however, that PacifiCorp did not reconsider any of these projects before
16 signing the contracts.¹⁵⁵ Neither did it reconsider any of these projects after signing the contracts,
17 even though the *historical facts and circumstances* also show that: “[REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]

¹⁵³ UE 246/PAC/500/Teply/26 lines 13-14 and 22 and Teply/27 lines 1-2; see also PAC/1500 Teply/4 lines 7-10.

¹⁵⁴ UE 246/Sierra Club/300/Fisher/20 lines 22-29 and Fisher/21 lines 1-5.

¹⁵⁵ “Reevaluation of the economics of projects after the contracts were executed or before beginning construction of a project did not typically occur, because at that time there was no material reason to conduct such reevaluations.” UE 246 PacifiCorp Pre-Hearing Brief at 26.

1 [REDACTED]”¹⁵⁶

2 In his testimony¹⁵⁷ Mr. Teply was asked about the Company’s decision not to utilize the
3 termination clauses. Mr. Teply testified that overusing such termination clauses would impact the
4 Company’s ability to negotiate them. At the Hearing Mr. Teply was asked whether he could envision
5 a scenario where the economics of a contract could change so much that it would be appropriate for
6 the Company to invoke such a clause. His response was that “hypothetically there could be
7 scenarios like that. That’s why we negotiate the provision.”¹⁵⁸

8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]”¹⁵⁹

13 The Wyoming SIP was also rejected after the contracts were signed. This too should have
14 provided PacifiCorp with additional time to reevaluate its plans. But PacifiCorp chose not to do any
15 of these things. It did not terminate the contracts and it did not reevaluate its plans. [REDACTED]

16 [REDACTED]
17 [REDACTED]
18 [REDACTED]

19 **K. SCRs Are Needed to Make Some of These Plants Used and Useful**

20 PacifiCorp now argues that all the pollution control investments that need to be made to
21 make the Naughton plant compliant with the RHR have been made.¹⁶⁰ This ignores the fact that the

¹⁵⁶ UE 246 CUB/200 Jenks-Feighner/33 lines1-10.

¹⁵⁷ PAC/2000/13 at lines 15-16.

¹⁵⁸ Hearing Transcript at 132 lines 22-25 and at 133 lines 1-2.

¹⁵⁹ UE 246/CUB/200/Jenks-Feighner/32 lines 14-21.

¹⁶⁰ Hearing Transcript at 177, line 18 to 178, line 5.

1 Wyoming SIP has yet to be approved.¹⁶¹ Given PacifiCorp’s new argument, CUB will address the
2 used and usefulness of all of these pollution controls again.

3 In its Initial Application, the Company argued that the pollution controls installed on these
4 plants were used and useful.¹⁶² It also stated that it “also anticipates completing installation of five
5 selective catalytic reduction systems (“SCRs”) (or otherwise reducing NOx emissions) at its owned
6 and operated facilities by 2022.”¹⁶³ CUB fears that this plan is resulting in piecemeal construction
7 and review of these projects and also leads to an issue of whether the investments are used and
8 useful.¹⁶⁴ The scrubber upgrade at Bridger 3 that is at issue in this case is a prime example.
9 PacifiCorp made the scrubber upgrade investment in order to comply with the RHR. The Wyoming
10 SIP has not been finalized, but requires the Company to invest in additional pollution controls,
11 including adding a SCR,¹⁶⁵ hence the question of whether the scrubber upgrade is used and useful
12 before the SCR is added. The scrubber has been added to the plant, and the plant is operating with
13 it, meaning it is used, but is the scrubber useful without the SCR? CUB continues to believe that the
14 scrubber by itself does not allow the plant to meet the requirements of the RHR.¹⁶⁶ The big problem
15 here is that “[e]lements of the investment were made years before the requirements were finalized
16 and come into rate cases as they occur in test years, but the Regional Haze Rule investments never
17 come before the Commission as a total project.”¹⁶⁷ This is a problem because the investments are
18 only used and useful when combined as a project.¹⁶⁸

19 In its Reply and Surrebuttal Testimony, the Company is now stating that Naughton 1 and 2
20 will not need SCRs, but that it may still install a SCR at Bridger 3. According to the Company, the
21 “Jim Bridger Unit 3 SCR is a separate and distinct project that when installed will meet the BART

¹⁶¹ See 77 FR 33022, accessible at <http://www.epa.gov/region8/air/npr309g.pdf>.

¹⁶² UE 246/PAC/500/Teply/27 lines 3-8.

¹⁶³ UE 246/PAC/500/Teply/9 lines 5-8.

¹⁶⁴ UE 246/CUB/100/Jenks-Feighner/18 lines 12-14.

¹⁶⁵ UE 246/CUB/100/Jenks-Feighner/18 lines 14-17.

¹⁶⁶ UE 246/CUB/100/Jenks-Feighner/18 lines 18-22 and Jenks-Feighner/19 lines 1-5.

¹⁶⁷ UE 246/CUB/100/Jenks-Feighner/19 lines 10-12.

¹⁶⁸ UE 246/CUB/100/Jenks-Feighner/19 lines 13-14.

1 requirement established for that equipment as it pertains to NOx.”¹⁶⁹ Since PacifiCorp claims that
2 the NOx and SO₂ standards must both be met, two separate projects are actually required to meet
3 BART at Bridger 3. Once again, the evidence shows that the scrubber is not used and useful until
4 the SCR is in place. Indeed, CUB proposes that all of the investments at issue in this docket could in
5 fact be disallowed on a purely used and useful basis.¹⁷⁰

6 PacifiCorp states that all of the investments being made in this docket are being made for
7 purposes of complying with specific environmental laws. CUB believes that until the environmental
8 laws in question go into effect the investments that have been made are not used and useful. At this
9 time the NOx standards exist only in permits and are not actually in law, and the Wyoming SIP has
10 yet to be approved. As for the SO₂ scrubber investments, those are being made pursuant to the
11 Backstop Trading Program, which has no unit-specific emissions limits, only regional goals. Since
12 the region is below the regional goals, and there are no unit-specific goals, there is no need for the
13 investments at this time; the investments are not useful. And to the extent that some investments
14 require the addition of others in order to meet the RHR standard, the first installation is not useful
15 until the second installation occurs at Bridger 3.

16 PacifiCorp attempts to rebut these arguments by stating that in order to be “useful” there
17 need only be a “modicum of usefulness” to distinguish property from being “merely used.” CUB
18 has trouble with this premise for several reasons. First, PacifiCorp cites to *In re PGE*, Docket No.
19 UE 21, Order No. 84-898 (Nov. 14, 1984), for the source of these quotations. A word search failed
20 to reveal these words in that document. Second, the *In Re PGE* case the Company cited to was one
21 in which the Commission found that the plant in question (Colstrip 3) had the ability to help the
22 system in ways not previously available, as it could displace other generating plants, improve system
23 reliability, allow greater flexibility in maintenance scheduling, and enhance ability to make sales,

¹⁶⁹ UE 246/PAC/1500/Teply 29 line 22 to Teply/30 line 3.

¹⁷⁰ In its Pre-Hearing Brief Staff observed that CUB had failed to “connect the dots between its discussion of PacifiCorp’s investment actions at each plant with its suggested used and useful disallowance remedy”¹⁷⁰ CUB also responds to that criticism with the arguments in the next paragraph.

1 increasing the ceiling price for wholesale sales. The pollution control investments made in UE 246
2 have not been shown to have the ability to do any of these things. In fact, at this time these
3 investments are wholly unnecessary for electricity production at the units concerned.

4 CUB was able to locate the case that actually contains the “modicum of usefulness”
5 language,¹⁷¹ but CUB does not think that case is applicable to this docket, either. That case pertained
6 to Colstrip 4, which was also a completely new plant. The Commission found the new plant
7 provided some benefits to Oregon ratepayers although at the time of the case they were
8 “negligible”¹⁷² But the pollution control investments at issue in UE 246 are not doing anything for
9 customers now other than potentially costing them lots of unnecessary dollars—the pollution
10 control investments are not causing the units to produce more electricity after than the installation
11 than they did before.

12 Regardless of these *used and useful* arguments, CUB believes that the Commission can decide
13 this case without consideration of the *used and useful* standard. The Commission can simply decide
14 that the pollution control investments were imprudently made based upon the fact that the
15 Company failed to do a least-cost/least-risk analysis at any of the units, failed to submit its planned
16 investments for IRP review, and failed to prove that any of the pollution control investments were
17 the least-cost/least-risk solution to an actual problem, as there was, and is, no Wyoming SIP.

18 **L. PacifiCorp Relies on the “Objective Reasonableness Standard” to Avoid Considering the**
19 **Least-cost/least-risk Approach**

20 As discussed in CUB’s Pre-Hearing Brief, PacifiCorp takes the position in its testimony
21 concerning the prudence standard that the scenarios the Company chose to consider, or not
22 consider, are irrelevant. According to PacifiCorp, the only thing that is relevant is what the
23 objectively prudent Company would have done in terms of making the clean air investments at issue

¹⁷¹ *In the Matter of the revised tariff schedules filed by PGE*, Docket Nos. UE 47 and UE 48, Order No. 87-1017 (Sept. 30, 1987).

¹⁷² *In the Matter of the revised tariff schedules filed by PGE*, Docket Nos. UE 47 and UE 48, Order No. 87-1017 (Sept. 30, 1987) at 9. “Although six years is a considerable period of time, the period is sufficiently short that the Commission finds that the plant will be necessary to meet load within a reasonable period of time.”

1 in this docket.¹⁷³ PacifiCorp’s game plan seems to be to refuse to consider modeling coal plant *phase-*
2 *outs*, so that there will not be objective evidence for the Commission to consider.¹⁷⁴ CUB knows that
3 the OPUC is too smart to buy into this. It is obvious that without the Company having performed
4 the appropriate least-cost/least-risk BART and MATS analyses, it could be very hard to know what
5 the cost of the alternative investment choices would have been. It could, therefore, be difficult to
6 prove that the Company would have “objectively” chosen one of these alternatives. PacifiCorp
7 forgets that it is not CUB’s job to prove that its actions were imprudent; rather, it is the Company’s
8 job to prove that its actions in each case in making pollution control investments were objectively
9 prudent.

10 **M. CUB Used PacifiCorp’s Model to Demonstrate What The Analysis Would Have Shown**
11 **Had It Been Done Correctly**

12 CUB’s modeling effort used PacifiCorp’s model and numbers, changing only the potential
13 closure date to the date that PacifiCorp says should have been used. CUB’s modeling shows what
14 would have happened had PacifiCorp done the correct modeling at the correct time.

15 ***iii. The Naughton 1 Investments Are Not Prudent***

16 The capital investment for the scrubber project being placed in service during the test period
17 is approximately \$121 million for the scrubber and associated equipment.¹⁷⁵ The UE 246 docket
18 costs include “the cost of common facilities that are required to be placed in service to allow
19 prudent operation of either unit’s new emission control equipment, although the majority of
20 common facilities were placed in service when the Naughton Unit 2 scrubber addition came online
21 in 2011.”¹⁷⁶ The capital investment for the NOx project being placed in service during the test
22 period is approximately \$9 million.¹⁷⁷ Because the historical facts demonstrate that PacifiCorp knew
23 or should have known 1) of the potential cumulative effect on its coal plants of the then current and

¹⁷³ UE 246/CUB/200/Jenks-Feighner/25 lines 5-9.

¹⁷⁴ UE 246/CUB/200/Jenks-Feighner/25 lines 12-18.

¹⁷⁵ UE/246 PAC/500/Teply/29 lines 13-18.

¹⁷⁶ UE 246/PAC/500/Teply/30 lines 16-19.

¹⁷⁷ UE 246/PAC/500/Teply/31 lines 12-13.

1 emerging environmental regulations,¹⁷⁸ 2) that it had all the tools and information to conduct a
2 simple least-cost/least-risk analysis available to it at the time it made its decision to make the
3 environmental control investments at Naughton 1, 3) that it could also have updated its initial
4 analysis at any time,¹⁷⁹ and 4) that it could have cancelled the contract [REDACTED],¹⁸⁰
5 CUB thinks the Naughton 1 investments were not prudent.¹⁸¹ The Commission should not include
6 these environmental investments in rates.

7 For Naughton 1, when the Company modeled the investment in February 2009, as
8 compared to an immediate 2009 shutdown, it found that it had a positive net present value of
9 \$[REDACTED].^{182,183} CUB found in its Response Testimony that if the Company had used its assumed
10 compliance deadline as the alternative retirement date (1/1/14), PacifiCorp's model would have
11 shown that Naughton 1 was not cost effective.¹⁸⁴ In other words, changing the PVRR model by only
12 this single variable results in a negative net present value of -\$[REDACTED]. The Company's PVRR
13 analysis was flawed.¹⁸⁵ Instead of proceeding with an investment that had a positive net present value
14 of \$[REDACTED], PacifiCorp went forward with a project that had a negative net present value.. The
15 investment was not prudent.

16 In its Reply and Surrebuttal Testimony, the Company argued that updating its PVRR studies
17 before signing the contracts in May 2009 would only have strengthened the Company's position in
18 this docket because it would have shown that capital expenditures were significantly reduced from

¹⁷⁸ UE 246/Sierra Club/200/Steinhurst/9 lines 10-30 to Steinhurst/10 line 29; UE 246/Sierra Club/100/Fisher/26 lines 3-18.

¹⁷⁹ UE 246/CUB/200 Jenks-Feighner/36 lines 6-8.

¹⁸⁰ UE 246/CUB/200 Jenks-Feighner/35 lines 19-20.

¹⁸¹ See also Sierra Club/100/Fisher/6 lines 17-29 and Fisher/7 lines 1-17; also Fisher/27 to 28 lines 19.

¹⁸² UE 246/PAC/500/Teply/37 lines 18-19.

¹⁸³ Staff states that the result of the assumed idling in 2009 is to overstate the PVRR(d) benefit for each coal plant unit of making environmental compliance investments. UE 246/Staff/1500/Colville/9 lines 20-22.

¹⁸⁴ UE 246/CUB/100/Jenks-Feighner/41 lines 13-15.

¹⁸⁵ UE 246/Sierra Club/100/Fisher/28 line 20 to Fisher/50 line 9; UE 246/Staff/1500/Colville/8 lines 12-15 – Staff acknowledges that the PVRR(d) analysis was flawed. We note that the Company in UE 246/PAC/1500/Teply/20 lines 13-17 tries to argue that it did not know about the 2015 compliance deadline at the time it made its decision, but that has no effect on CUB's analysis, as even applying the 2013 date that the Company admits knowing about it can be seen that the project was not cost-effective.

1 the amounts included in its economic analyses.¹⁸⁶ This differential does not change CUB's analysis in
2 any way because the prudence standard relates to what the Company expected at the time it made
3 the decision to invest in pollution controls, not the actual costs that were incurred after it made the
4 decisions. Put another way, this is irrelevant because the contract date is not the date when the
5 decision to invest was made; it was merely the date on which the Company acted upon that decision.

6 As discussed above, PacifiCorp is only arguing the contract signing date for Naughton 1. If
7 that really is the basis for the objective prudence standard, then that must be the objective prudence
8 standard for all seven units at issue in this docket, yet PacifiCorp has only entered evidence about
9 the contract into the docket for this one unit—Naughton 1. If an objective prudence standard is to
10 be truly objective, PacifiCorp cannot be allowed to interpret the standard differently for each of the
11 units at issue in this, or any other, docket.

12 The capital investment proposed in this case for Naughton Unit 1 is \$130 million. The
13 Company should have realized that it did not make economic sense to move forward with this
14 project. Realizing that pollution control was not cost-effective should have led the Company to
15 examine a wide range of alternatives, including whether an alternative closure date would have
16 reduced the costs.¹⁸⁷

17 CUB adjusted PacifiCorp's PVR model to examine a 2020 Boardman-style *phase-out* and
18 found that this was the preferable option. To do this CUB removed the clean air investment costs
19 and generation from plant operations after 2020. This showed a positive NPV of \$ [REDACTED].¹⁸⁸
20 This does not include costs associated with alternative compliance, such as dry sorbent injection,
21 because CUB does not have a basis for determining those costs. If PacifiCorp had considered the
22 option of early *phase-out* in regard to the plants in this docket, it would have realized that a 2020

¹⁸⁶ UE 246/PAC/2000/Teply/11 lines 1-10.

¹⁸⁷ UE 246/Sierra Club/300/Fisher/9 lines 21-24.

¹⁸⁸ UE 246 / CUB / 200 Jenks-Feighner / 35, lines 10-11.

1 closure could save customers millions—it could have saved more than \$ [REDACTED]¹⁸⁹ for Naughton 1
2 alone. Early *phase-out* was the prudent plan that the Company should have followed.

3 PacifiCorp has relied entirely on its PVVR analyses to prove the cost effectiveness of each
4 plant throughout this docket. If the Commission is not to rely on the results of those studies, then
5 what is it to rely on? PacifiCorp has not provided any evidence in addition to the PVRR(d) studies.
6 CUB would remind the Commission that PacifiCorp retains the burden of persuasion throughout
7 this docket.

8 As noted in CUB’s Pre-Hearing Brief, as an alternative to our prior recommendation of a
9 25% penalty for not operating under a least-cost/least-risk analysis, CUB also suggests that the
10 Commission could consider denying recovery of all of the costs associated with Naughton 1
11 pollution control investments. Because this case uses a 2013 test year, there is no need for the
12 Commission to go any further than denying recovery of these costs.¹⁹⁰ In addition, as CUB has
13 demonstrated, the outcome that models the best results for customers is the 2020 *phase-out*. CUB
14 recommends that the Commission consider the 2020 *phase-out* model to be the prudent alternative.
15 This would mean that the plant would stay in rates without the imprudent costs until the end of
16 2020, when the entire plant would then be removed from rates.¹⁹¹

17 **N. The Naughton 2 Investments Are Not Prudent**

18
19 The scrubber addition project on Naughton Unit 2 was constructed concurrently with the
20 Naughton Unit 1 scrubber project, but on an earlier completion schedule.¹⁹² The project was placed
21 in service in November 2011.¹⁹³ Costs associated with ancillary projects are included in this docket.¹⁹⁴

¹⁸⁹ \$ [REDACTED] NPV benefit of phase out compared to -\$ [REDACTED] NPV for investment.

¹⁹⁰ UE 246/CUB/200/Jenks-Feighner/36 lines 20 -23 and 37 lines 1-6.

¹⁹¹ UE 246/CUB/200/Jenks-Feighner/37 lines 7-11 and FN 57: CUB is willing to look at accelerated depreciation so the Company does not lose its early prudent investment in the plant.

¹⁹² UE 246/PAC/500/Teply/39 lines 21-22.

¹⁹³ UE 246/PAC/500/Teply/40 lines 3-4.

¹⁹⁴ UE 246/PAC/500/Teply/40 lines 21-23 and Teply/41 lines 1-3.

1 The capital investment for the scrubber portion of the project is approximately \$155 million¹⁹⁵ and
2 the NOx portion of the project is \$9 million.¹⁹⁶ The Naughton 2 PVRR study was conducted in
3 2009.¹⁹⁷ For Naughton 2, when the Company modeled the investment as compared to immediate
4 2009 shut down, it found that it had a positive net present value of \$ [REDACTED].¹⁹⁸ CUB also updated
5 its analysis for Naughton 2 to use the expected compliance date of 1/1/14 used by the Company in
6 its Reply Testimony.¹⁹⁹ [REDACTED]. While still positive, this
7 large decrease suggests that the case for the investment was extremely small to begin with²⁰⁰ and
8 demonstrates that the investment in clean air equipment was marginal at best. CUB also looked at
9 updating the forward price curve along the way, since the [REDACTED].
10 Using the forward price curve from the Hunter plant analysis in late 2009, CUB found the
11 investment had a negative NPVRR of -\$ [REDACTED]
12 [REDACTED].²⁰¹ Thus, even if the Company had gone forward based on the marginal economics
13 of its original study, within a year it would have found that the investment was no longer economic
14 and, under the terms of the contract, it had the opportunity to reconsider the investment and save
15 customers more than \$ [REDACTED]. CUB then modeled phasing out the plant by the end of 2020. This
16 showed a positive NPVRR of \$ [REDACTED], which was greater than the Company's original finding
17 of \$ [REDACTED].²⁰² It seems to CUB that this was clearly the most economic choice for customers.

18 Because the *historical facts* demonstrate that PacifiCorp had all the tools and information to
19 conduct this simple least-cost/least-risk analysis available to it at the time it made its decision to
20 make the environmental control investments at Naughton 2, and because PacifiCorp could also have
21 updated its initial analysis at any time, and because PacifiCorp could have cancelled the contract at

¹⁹⁵ UE 246/PAC/500/Teply/40 lines 1-2.

¹⁹⁶ UE 246/PAC/500/Teply/41 lines 8-9.

¹⁹⁷ UE 246/CUB/100/Jenks-Feighner/39 lines 2-4.

¹⁹⁸ UE 246/PAC/500/Teply/45 line 23.

¹⁹⁹ UE 246/CUB/200/Jenks-Feighner/37 lines 15-17.

²⁰⁰ UE 246/CUB/200/Jenks-Feighner/37 lines 17-19.

²⁰¹ UE 246/CUB/200/Jenks-Feighner/38 lines 5-8.

²⁰² UE 246/CUB/200/Jenks-Feighner/38 lines 1-3; UE 246/CUB/200/Jenks-Feighner/37 line 18.

anytime [REDACTED],²⁰³ CUB maintains that the Naughton 2 investments were not prudent. The Naughton 2 environmental investments therefore cannot be included in rates.

As an alternative to CUB's 25% disallowance recommendation, CUB suggests that the Commission could find this investment imprudent and deny the Company cost recovery. While the 2013 test year at issue here does not require the Commission to go beyond this step, CUB again recommends that the Commission find that a 2020 *phase-out* would have been the prudent path and that ratemaking treatment in Oregon must follow this assumed prudent path.²⁰⁴

O. The Bridger 3 Investments Are Not Prudent

CUB has already discussed the SO₂ and NO_x unit emission limit legal issues above. We now discuss the additional reasons for determining that the Bridger 3 investments were not prudent. The capital investment for the scrubber project placed in service at Bridger Unit 3 in June 2011 is approximately \$17 million.²⁰⁵ Approximately \$1 million of that capital investment is associated with project closeout and is included in the plant additions adjustment also included in this docket.²⁰⁶ Also, "the operation of the new emissions control equipment results in increased operation and maintenance costs associated with reagent, waste disposal, and equipment maintenance."²⁰⁷ For Bridger 3, when the Company modeled the investment as compared to immediate 2008 closure, it found that it had a positive net present value of \$[REDACTED].²⁰⁸ CUB changed the PVRR model to remove the assumption that the alternative to the investments was an immediate closure of the plant. This reduced the NPVRR to \$[REDACTED].²⁰⁹ CUB then looked at the forward price curve from the fall of 2009 and found that this reduced the net present value down to \$[REDACTED]. By the end of 2009, this project, rather than having a benefit of \$[REDACTED], had a benefit of \$[REDACTED].

²⁰³ UE 246/CUB/200/Jenks-Feighner/38 lines 8-11.

²⁰⁴ UE 246/CUB/200/Jenks-Feighner/38 lines 13-22.

²⁰⁵ UE 246/PAC/500/Teply/80 lines 8-10; UE 246/CUB/104/Feighner-Jenks/1—CUB Data Request and Response 4.

²⁰⁶ UE 246/PAC/500/Teply/80 lines 10-11.

²⁰⁷ UE 246/PAC/500/Teply/8 lines 7-9.

²⁰⁸ UE 246/PAC/500/Teply/85 lines 10-11.

²⁰⁹ UE 246/CUB/200/Jenks-Feighner/39 lines 17-19.

1 CUB then looked at alternatives to the investment in clean air technology. CUB modeled the
2 effects of *phasing out* the plant by 2020. This reduced the NPVRR again, down to \$ [REDACTED].
3 *Phasing out* the plant in 2022 had a net present value of \$ [REDACTED] and *phasing out* the plant in 2025
4 had a net present value of \$ [REDACTED].²¹⁰ All of this shows that if the Company had been updating
5 its analysis in the fall of 2009, it would have seen that *phasing the plant out* in 2022 or 2025 would have
6 been preferable to making the pollution control investments.²¹¹

7 This means that even though its pollution control investment contract for Bridger 3 did not
8 have exactly the same cancelation provisions as the Naughton contracts, PacifiCorp could—and
9 should—still have utilized its right to cancel without cause and to pay only the costs the contractor
10 had incurred to date.²¹²

11 The Company again argues for Bridger 3 that it did not know about PGE and accelerated
12 closure;²¹³ CUB has already argued this topic extensively in its Pre-Hearing Brief and earlier in this
13 Post-Hearing Brief. As CUB has already shown, this argument is simply not credible. PacifiCorp's
14 co-owner of this plant was Idaho Power, which was also a co-owner with PGE at Boardman.

15 Because the *historical facts* demonstrate that all the tools and information to conduct this
16 simple least-cost/least-risk analysis were available to PacifiCorp at the time it made its decision to
17 make the environmental control investments at Bridger 3; because PacifiCorp could also have
18 updated its initial analysis at any time;²¹⁴ and because PacifiCorp could have cancelled the contract at
19 any time,²¹⁵ CUB believes that the Bridger 3 investments were not prudent and cannot be included
20 in rates. The Company should have reevaluated this project and considered a *phase-out* between 2020
21 and 2025, since this would likely be the least-cost option for customers.

22 As an alternative to CUB's 25% disallowance recommendation, CUB suggests that the

²¹⁰ UE 246/CUB/200/Jenks-Feighner/40 lines 1-4.

²¹¹ UE 246/CUB/200/Jenks-Feighner/40 lines 6-9.

²¹² UE 246/CUB/200/Jenks-Feighner/40 lines 10-22.

²¹³ UE 246/PAC/1500/Teply/30 lines 14 – 21.

²¹⁴ UE 246/CUB/200/Jenks-Feighner/40 lines 6-9.

²¹⁵ UE 246/CUB/200/Jenks-Feighner/40 lines 10-13.

Commission could find this investment imprudent and deny the Company recovery of it. While the 2013 test year at issue here does not require the Commission to go beyond this step, CUB recommends that the Commission find that a 2022 *phase-out* would have been the prudent path and that ratemaking treatment in Oregon must follow this assumed prudent path.²¹⁶

VI. ADDITIONAL RECOMMENDATIONS

CUB respectfully requests that the Commission require PacifiCorp to conduct the detailed analytical, company-wide reviews outlined by CUB and Sierra Club in this docket.

VII. CONCLUSION

The fact that CUB is not introducing modeling results that demonstrate imprudence for each of PacifiCorp's other units does not suggest that CUB believes the approach taken by the Company in analyzing whether to make the clean air investments in those units was prudent or reasonable.²¹⁷ While CUB is focused in this docket on Naughton 1 and 2 and Bridger 3, CUB recognizes that the same least-cost/least-risk arguments are equally applicable to the other units at issue in this docket.

CUB agrees with Staff that the Commission needs to advise parties to this docket of its "going forward expectations regarding analyses prior [to] a utility making environmental compliance investments at existing resource units."²¹⁸ CUB also agrees with RNP and NWECA that a high bar should be set for analysis of alternative to coal investments going forward.²¹⁹ CUB appreciates the list of factors that RNP and NWECA set forth for inclusion in the unit by unit analyses that must be done.²²⁰

In terms of the findings that must be entered in this rate case, CUB agrees that "[a] 'do better next time' message from the Commission is not enough. Real consequences are appropriate

²¹⁶ UE 246/CUB/200/Jenks-Feighner/41 lines 6-12.

²¹⁷ UE 246/CUB/200/Jenks-Feighner/41 lines 14-20; *See also* UE 246/Sierra Club/200/Steinhurst/11 lines 1-16; Steinhurst/17 lines 3-15 and Sierra Club/100/Fisher/6 lines 6-16 and Fisher/7 lines 18-31; Fisher/50 line 10 to 57 line 10; Fisher/59 line 10 to Fisher/60 line 4; *But see* Staff/1500/Colville/5 lines 6-16.

²¹⁸ UE 246/Staff/1500/Colville/19 lines 22-23 and Colville/20 line 1.

²¹⁹ UE 246 Pre-Hearing Brief of RNP and NWECA at 1.

²²⁰ UE 246 Joint Pre-Hearing Brief of RNP and NWECA at 7

1 when hundreds of millions of dollars have been spent without clear economic benefits or acceptable
2 consideration of alternatives to doubling down on aging . . . generators.”²²¹

3 To quote RNP and NWEA:

4 In determining whether a utility’s costs were prudently incurred, the Commission
5 analyzes the objective reasonableness of the utility’s actions based on the information
6 that was available—or could reasonably have been available—at the time the action was
7 taken. Docket Nos. UM 995/UE 121/UC 578, Order No. 02---469 at 4 (July 18, 2002)
8 (citing *In re PGE*, Docket No. UE 102, Order No. 99---033 at 36---37); Docket Nos.
9 UE 34/UM 1047, Order No. 02---820 at 5 (Nov. 20, 2002). If the actions were
10 reasonable, then the costs were prudently incurred. Docket Nos. UE 34/UM1047,
11 Order No. 02---820 at 5 (Nov. 20, 2002). If the utility’s actions were unreasonable, then
12 the costs were not prudently incurred. *Id.* The consequence of an expense not being
13 prudent is that the Commission does not include the expense in the calculation of the
14 utility’s rates. *Id.*²²²

15 CUB, therefore, disagrees with Staff that imprudent pollution control investments should be allowed
16 into rates as interim subject to refund.²²³ Costs that have been found to be imprudent should never
17 be allowed into rates. CUB’s position as to Staff’s other recommendations are set forth in its Pre-
18 Hearing Brief. It remains CUB’s position that a 25% disallowance would offset some of those higher
19 costs for ratepayers.²²⁴ While the 25% disallowance requested is likely to not be enough to fairly
20 compensate customers for the Company’s past imprudence, CUB still hopes that this amount is
21 enough to encourage PacifiCorp to act prudently and in the best interest of its customers in the
22 future.²²⁵

23 Also, as set forth in CUB’s Pre-Hearing Brief, the Commission has the option of a more
24 traditional prudence disallowance.²²⁶ The Commission could just disallow the clean air investments
25 made at Naughton 1 and 2 and Bridger 3. If the Commission accepts this option, it is not necessary
26 to take up future ratemaking for the plants. CUB recommends, however, that the Commission order
27 that ratemaking assume that the Company is prudently pursuing a path of *phasing out* the plants

²²¹ UE 246 Pre-Hearing Brief of RNP and NWEA at 1.

²²² UE 246 Joint Pre-Hearing Brief of RNP and NWEA.

²²³ UE 246/Staff/1500/Colville/20 lines 10-13.

²²⁴ UE 246/CUB/200/Jenks-Feighner/28 lines 17-20.

²²⁵ UE 246/CUB/200/Jenks-Feighner/30 lines 21-24.

²²⁶ UE 246/CUB/200/Jenks-Feighner/28 line 6.

1 between 2020 and 2025.

2 CUB's third alternative remains that the Commission could find that the Company has failed
3 to show that the investments at issue here are "used and useful" because these investments are not
4 sufficient to demonstrate compliance with RHR/BART. Under this option, the Commission would
5 be directing the Company to file for rate recovery when it can demonstrate that the investments are
6 part of an overall plan to meet RHR/BART in a least-cost/least-risk manner.

7 CUB would not be averse to Staff's idea of the Commission disallowing costs related to
8 PacifiCorp's management expense to reflect a lower quality of management during the time the new
9 rates will be in effect,²²⁷ but only if it is in addition to, and not in lieu of, CUB's other
10 recommendations.

Dated this 7th day of November, 2012.

Respectfully submitted,



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²²⁷ UE 246 Staff Pre-Hearing Brief at 5 lines 4-8.

UE 246 – CERTIFICATE OF SERVICE

I hereby certify that, on this 8th day of November, 2012, I served the foregoing **CITIZENS' UTILITY BOARD OF OREGON'S CORRECTED POST-HEARING BRIEF**- in docket UE 246 upon each party listed in the UE 246 PUC Service List by email and, where paper service is not waived, by U.S. mail, postage prepaid, and upon the Commission by email and by sending one original and five copies of the corrected pages by U.S. mail, postage prepaid, to the Commission's Salem offices.

(W denotes waiver of paper service)

(C denotes service of Confidential material authorized)

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Sommer Templet". The signature is fluid and cursive, with the first name "Sommer" being more prominent than the last name "Templet".

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