BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 246

In the Matter of PACIFICORP, dba PACIFIC POWER's Request for a General Rate Revision	STAFF PREHEARING BRIEF

1. INTRODUCTION

Staff of the Public Utility Commission of Oregon (Staff) submits this prehearing brief consistent with the schedule established in this proceeding. On July 12, 2012, certain parties submitted a Partial Stipulation resolving many of the issues in this proceeding. Signatories to the Partial Stipulation were PacifiCorp (PacifiCorp or Company), Staff, the Citizens' Utility Board of Oregon (CUB), the Industrial Customers of Northwest Utilities (ICNU), and Fred Meyer Stores and Quality Food Centers, divisions of The Kroger Co. (Kroger) (collectively the Stipulating Parties). Sierra Club is the only other party that filed testimony in this proceeding and has remained active.

The Partial Stipulation resolved all issues in this case except for the following: (1) the prudence of PacifiCorp's investments in environmental controls at certain of its thermal (coal) generation plants; (2) PacifiCorp's proposal to add the Mona-to-Oquirrh transmission line project to its rate base through a separate tariff rider when the line goes into service in 2013; and (3) PacifiCorp's request for a power adjustment mechanism (PCAM) and ICNU's related issue on the Transition Adjustment Mechanism (TAM). Staff's prehearing brief will address these three remaining issues in the order listed.

2. STANDARD OF REVIEW

PacifiCorp filed revised tariff sheets seeking to increase its base rates. The proceeding to review and analyze PacifiCorp's filing is generally referred to as a "rate case" and is governed by

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

ORS 757.205 *et. seq*. Under ORS 757.210(1)(a), PacifiCorp bears the "burden of proof" to show that its proposed rates are fair, just and reasonable. *See also* ORS 756.040(1). The Commission has issued a series of orders that clarify the burden of proof concept as it is applied in a rate case.

In its Order No. 01-777, the Commission stated that the utility has the burden to show, by a preponderance of the evidence, that its proposed change is just and reasonable. The Commission further declared that "if [the utility] fails to meet that burden, either because the opposing party presented compelling evidence in opposition to the proposal, or because [the utility] failed to present compelling information in the first place, the [the utility] does not prevail." Order No. 01-777 at 6.

Later, in its Order No. 09-046, the Commission clarified that the burden of proof concept involves both the "burden of persuasion" and the "burden of production." These aspects were described as follows:

> The burden of persuasion…is always with the utility. The ultimate burden of producing enough evidence to support its claims is also with the utility. Other parties in the case, however, have the burden of producing evidence to support their argument in opposition to the utility's position.

Order No. 09-046 at 7-8.

> The Commission most recently opined on the various burdens as follows:
> To reach a determination on whether proposed rates are just and reasonable, we look at the record as a whole and make a determination based on the preponderance of the evidence. Once a utility has met the initial burden of presenting evidence to support its request, "the burden of going forward then shifts to the party or parties who oppose including the costs in the utility's revenue requirement." Although the burden of production shifts, the burden of persuasion is always on the utility.

Order No. 11-432 at 3.

In summary, the Commission has firmly declared that the burden of persuasion and the burden of presenting sufficient supporting evidence remain with the utility throughout the rate case. It is not Staff's or the intervening parties' role to show that a proposed cost increase is unfair, unjust or unreasonable (or, in the case of the coal plant cost issue, imprudent). Rather, it

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

is PacifiCorp's burden to carry its burden of proving its proposal is fair, just, and reasonable (and, in the case of the coal plant cost issue, prudent).

3. ENVIRONMENTAL CONTROL INVESTMENTS (COAL PLANT ISSUE)

PacifiCorp is seeking rate recovery of its investments in environmental controls at the following thermal generation plants (also referred to in this prehearing brief as "coal plants"): Naughton Units 1 and 2 (Naughton 1&2), Dave Johnston Unit (4) (Johnston 4), Hunter Units 1 and 2 (Hunter 1&2), Jim Bridger Unit 3 (Bridger 3) and Wyodak. CUB proposes to disallow 25 percent of the Company's investment in all environmental controls as imprudent or, in the alternative, to disallow the investments as not currently used and useful. *See generally* CUB/100, Jenks-Feighner/17-20, 58-59; CUB/200, Jenks-Feighner/28-31. Sierra Club proposes to disallow the investments in Naughton 1&2 and Hunter 1&2 as imprudent. *See generally* Sierra Club/100, Fisher/4; Sierra Club/200, Steinhurst/4-6. Staff found infirmities or deficiencies with PacifiCorp's decision-making process in certain areas but overall found the investments at issue to be not imprudently incurred. *See generally* Staff/400, Colville/3-4; Staff/1500, Colville/17-19. In response, PacifiCorp does not generally refute Staff's testimony but vigorously opposes the reasoning and analysis employed by CUB and Sierra Club in support of their respective proposed cost disallowances. *See generally* PAC/1400 (Woolums); PAC/1500 (Teply); PAC/1900 (Woolums); and PAC/2000 (Teply).

As evidenced by the enormity of the filed testimony and supporting exhibits, this issue is extremely complex. As such, Staff will not attempt to discuss in this prehearing brief each and every argument and claim presented by the parties. Instead, Staff will discuss the major points raised by the parties related to the coal plant investments and set forth Staff's position on each. Staff will begin with an explanation of the prudence standard.

A. The Commission's Prudence Standard

The Commission has stated that prudence is determined by the reasonableness of the actions taken by the utility at issue based on the information that was available to the utility at

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

the time (or could reasonably have been available). *See* Order No. 99-697; Order No. 99-033. For its proceedings, the Commission has clarified that it will apply the prudence standard as follows: "if the record demonstrates that a challenged business decision was reasonable, taking into account established historical facts and circumstances, the utility's decision must be upheld as prudent even if the record lacks detail of the utility's actual subjective decision making process." *See* Order No. 02-469 at 5. Stated differently, under what Staff terms the "objective prudence standard" adopted by the Commission in its 2002 Order, a utility's action can be found to be prudent even if the process leading up to the decision to take (or not take) that action had some shortcomings or what staff terms "deficiencies."

Staff applied this standard in reaching its conclusion that while PacifiCorp's decision making process for the coal plants at issue had some infirmities, overall, Staff could not conclude that the actions taken were imprudent.

Further, although Staff is not recommending a disallowance of any of the environmental compliance costs in this proceeding, Staff did provide some general guidance should the Commission chose to do so. *See generally* Staff/1500, Colville/19-23. In brief summary, Staff set forth two primary disallowance options.[1]

First, Staff suggested that the Commission remove the disallowed costs from the approved revenue requirement, assume the coal plant was closed by a certain date and then determine how the coal plant's power output would be replaced and impute those costs into PacifiCorp's rates. *Id*. at 20-21. If additional time is required for this inquiry, Staff suggested

---

[1] Staff notes that, for each coal plant at issue, CUB makes an alternative disallowance suggestion: that the investment at issue is not adequate to meet relevant environmental mandates for 2015 and, as such, the investments should be disallowed as not used and useful. *See generally* CUB/100, Jenks-Feighner/18-19 and 37-38 (Bridger 3 plant), 43-44 (Naughton 1&2), 47 (Johnston 4), 54 (Hunter 1&2), 57 (Wyodak). Notably, CUB did not elaborate on its used and useful argument in its final round of testimony (i.e. CUB/200). Staff does not directly respond to CUB's used and useful disallowance suggestion for two reasons: (1) CUB does not connect the dots between its discussion of PacifiCorp's investment actions at each plant with its suggested used and useful disallowance remedy and (2) Staff's response, if needed, is contained in its discussion in the text as to why the Commission should not make a prudence disallowance of any of the plant investments at issue.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

that the Commission could allow the costs for the units at issue to go into effect subject to a deferral and later reconciliation. *Id*. *See also* Commission Order No. 12-226 (use of deferral to defer revenue requirement variances pending subsequent phase to the proceeding).

Second, the Commission could disallow costs related to PacifiCorp's management expense to reflect a lower quality of management expected during the time the new rates will be in effect as evidenced by PacifiCorp's management team's inadequate performance in its decision making process underlying the environmental investments (i.e. the infirmities Staff identified). *Id*. at 22-23; *see also* Commission Order No. 97-171 (lowering utility's return on equity to reflect expected lower quality of management during time rates would be in effect).

B. Naughton 1&2

(1) PacifiCorp's Basic Presentation

The Naughton plant is located in Wyoming and consists of three coal-fired units that are entirely owned by PacifiCorp. PAC/500, Teply/28. For Naughton 1, PacifiCorp seeks recovery for $121 million incurred for a "wet flue gas desulfurization" (FGD or "wet scrubber") system and $9 million for a low nitrogen oxide (NOx) burner (LNB). PAC/500, Teply/29, 31. For Naughton 2, PacifiCorp seeks recovery for $155 million costs incurred for a FGD and $9 million for a LNB. PAC/500, Teply/39-41. For Naughton 1, construction of the FGD retrofits began in 2010 and will end in May, 2012. PAC/500, Teply/29. For Naughton 2, construction began in 2010 and the retrofits were put in service in November, 2011. *Id*. at 39-40.

PacifiCorp states that it developed an economic analysis to provide an overview of the "present value revenue requirement differential" [PVRR(d)]. Generally, the PVRR(d) analysis compares the benefits associated with the Company's planned emission control investments at a particular coal plant against idling or closing the plant and replacing the power with market purchases. PAC/500, Teply/21; *see also* Sierra Club/100, Fisher/29. A positive PVRR(d) number supports making the investments and continuing to operate the coal plant.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

For both Naughton 1&2, the Company performed its PVRR(d) analysis prior to executing the construction contract in May 2009. PAC/500, Teply/37, 45. PacifiCorp states that its original PVRR(d) results related to the decision making period for both Naughton 1&2 supported continued operation of the units with the retrofit investments. *Id*. In response to CUB's and Sierra Club's testimonies, PacifiCorp re-ran the PVRR(d) for both Naughton1&2 using different assumptions consistent with CUB's and Sierra Club's critiques. The revised PVRR(d) analyses still resulted in a positive number for the pollution control investments in both plants. *See generally* PAC/1500, Teply/18.

PacifiCorp states that the Naughton investments were prudently incurred to meet current, or expected, environmental regulations and obligations.

(2) Staff's Basic Response

Staff reviewed PacifiCorp's analyses and concluded that, of the coal plants at issue, Naughton 1&2 were the closest call from a PVRR(d) viewpoint. Staff/1500, Colville/15-17. However, after careful consideration, Staff concluded that PacifiCorp's investment actions for Naughton 1&2 were ultimately not imprudent. Staff witness Colville reasoned that PacifiCorp, as a load serving entity, had an obligation to operate its system to meet reliability, quality and safety standards. Naughton 1&2 had provided reliable and safe service for many years and PacifiCorp was faced with an uncertain environmental compliance future. Thus, despite the close PVRR(d) results for the two units, Staff witness Colville concluded that PacifiCorp could have reasonably decided to continue to invest in and use Naughton 1&2 and, as such, the Company's investment actions were not imprudent. Staff/1500, Colville/17-19.

However, despite its finding of no imprudence related to the Naughton 1&2 investments, Staff concluded that the Company's decision making processes related to the environmental investments at the two units was deficient or infirm in the following respects: (1) failure to consider at the time of decision making costs for carbon dioxide (CO2) emission regulation; (2) failure to include capital cost proxies for compliance with potential coal combustion residuals

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(CCR), effluent limit, and cooling water intake requirements; (3) failure to update analyses as significant milestones were reached; (4) use of decision making dates for idling the coal plants rather than state permit compliance dates; and (5) failure to perform case sensitivity analyses for Best Available Retrofit Technology (BART) compliance costs. Staff/1500, Colville/16, 23-25.

CUB and Sierra Club both draw a different conclusion for Naughton 1&2. Based upon their respective analyses, CUB and Sierra Club argue that PacifiCorp's investments in the Naughton 1&2 units should be found to be imprudent (or, as CUB's alternative position, disallowed as not used and useful).

(3) CUB's and Sierra Club's Presentations and Staff's and PacifiCorp's Respective Responses

Briefly and broadly stated, CUB argues that PacifiCorp did not fully analyze alternative approaches to environmental compliance mandates and, if it had done so, the Company may have chosen to phase out the units instead of going forward with the environmental retrofit investments. CUB further asserts that PacifiCorp could have waited longer before going ahead with the investments. CUB also argues that PacifiCorp's PVRR(d) analyses were flawed. CUB/100, Jenks-Feighner/25-27; CUB/200, Jenks-Feighner/35-38.

In addition to raising the same issues as CUB, Sierra Club's presentation, broadly speaking, is that PacifiCorp's analyses were flawed and that the Company committed to the investments prematurely, prior to a legal mandate to do so.[2]

///

///

///

///

[2] It is important to emphasize that Staff actually agrees with several of CUB's and Sierra Club's more specific criticisms concerning PacifiCorp's approach to the Naughton investments (e.g. PacifiCorp's choice of plant idling dates, failure to perform updates to its analyses). However, Staff concluded these same deficiencies constituted decision making infirmities that ultimately did not support a disallowance of the investments.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(i) Boardman Issue[3]

One important aspect of CUB's presentation is its discussion of the impact Portland General Electric's closure of its Boardman coal plant should have had on the Naughton analyses. CUB vigorously asserts that PacifiCorp knew, or should have known, that using a Boardman-type approach of modeling plant closure before its end-of-useful life closure date (also referred to as an "early" plant closure in this Staff brief) was permissible under BART. According to CUB, the Oregon Department of Environmental Quality (Oregon DEQ) approved the Boardman early closure plan in December 2010 and the Environmental Protection Agency (EPA) approved the early closure proposal in January 2011. CUB/200, Jenks-Feighner/19-20.

CUB offers a timeline of regulatory highlights starting in June 2008 with the publication of Order No. 08-339 adopting Integrated Resource Plan (IRP) Guideline 8 pertaining to the analysis expected for CO2 and other pollution costs. CUB/200, Jenks-Feighner/14. CUB argues the timeline shows that Oregon DEQ rejected PGE's Boardman regional haze compliance proposal in June 2009, allowing PGE to refile with a request for a rule change if PGE were to decide to close Boardman early. CUB states it requested that PGE model a 2020 closure date for Boardman in September 2009, which was reported in the Oregonian newspaper that month. CUB/200, Jenks-Feigher/18. PGE announced in January 2010 its intent to close Boardman by 2020. CUB/200, Jenks-Feigner/19. In summary, CUB asserts that certain coal plant analyses were expected and that PacifiCorp should have known that a Boardman-type approach was potentially permissible under BART as early as 2008. CUB/100, Jenks-Feighner/23-25; CUB/200, Jenks-Feighner/11-23, 35-38.

---

[3] While it is not entirely clear, CUB seems to make a "Boardman" early closure type of claim related to PacifiCorp's analyses for only Naughton 1&2 and Jim Bridger 3. *See* CUB/200, Jenks-Feighner/41 and accompanying text at footnote 68. But, if CUB's intent is to raise the argument for all of the coal plant investments at issue in this case, Staff's brief on the Boardman early closure issue in the text above should be read to as its response to CUB for all of the coal plants.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

In other words, according to CUB, PacifiCorp could, and should, have modeled early closure dates for the Naughton 1&2 units under BART. Doing so, according to CUB, would have resulted in PacifiCorp being able to avoid the environmental compliance costs at issue here by running the units without the required retrofits as long as legally permissible and then closing Naughton 1&2 before the end of their expected useful lives. *Id*.

Staff responded to CUB by first noting that the Boardman approach to the BART analysis (i.e. considering useful life as a permissible variable in the analysis) was not recognized as being beneficial until late 2010. As will be recalled, PacifiCorp's PVRR(d) analyses related to those investments was concluded in Spring 2009 and construction of the retrofits commenced in 2010. As such, Staff reasoned that approval and acceptance by the governing entities of the Boardman approach occurred too late to be used by PacifiCorp in the Naughton investment decision making process. Staff/1500, Colville/26-27.

PacifiCorp also responded to CUB's assertion about Boardman. Similar to Staff, PacifiCorp points out that the Boardman proposal to use an early closure date in the relevant studies was not found to be reasonable until (December) 2010. PAC/1900, Woolums/3. But, by June 2010, the overall Naughton projects were about 40 percent complete with costs of about $70 million incurred. PAC/1500, Teply/19. And, by this time, the Company's Naughton original investment decisions were long-since completed. PAC/1900, Woolums/19; PAC/2000, Teply/3.

For these reasons, PacifiCorp and Staff concluded that it was not imprudent for the Company to not utilize a Boardman-type variable input in the analyses for Naughton 1&2.

(ii) Immediate Idling or Closure of Plant Issue

CUB and Sierra Club state that PacifiCorp erred in using immediate idling or closure of the units in its PVRR(d) analyses rather than modeling the federal compliance dates. CUB/100, Jenks-Feighner/26, 40; Sierra Club/100, Fisher/39; Sierra Club/300, Fisher/14-15. Further, according to CUB and Sierra Club, the most likely federal compliance date was 2015. *Id*. As

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

stated earlier, Staff agrees with this criticism and found it to be a decision making infirmity (Staff concluded however that 2014 was a reasonable date rather than 2015). Staff/1500, Colville/12, 16, 23-25.

PacifiCorp's response was to re-run its PVRR(d) analysis with a January 1, 2014 federal compliance date. PacifiCorp's revised modeling still resulted in a positive PVRR(d) for both units. PAC/1500, Teply/18. In response, Sierra Club's review of PacifiCorp's revised modeling showed different results. Sierra Club/300, Fisher/15. Staff concluded, after review of the parties' competing modeling, was that the revised PVRR(d) results for Naughton 1&2 were simply "inconclusive." Staff/1500, Colville/13-14.

(iii) Need to Update Analyses

CUB and Sierra Club argue that PacifiCorp should have updated its analyses to reflect significant new events. CUB/100, Jenks-Feighner/27, 40-41; CUB/200, Jenks-Feighner/31; Sierra Club/100, Fisher/27-28; Sierra Club/300, Fisher/10. Staff agrees. Staff/1500, Colville/8-9. As a related matter, CUB points out that PacifiCorp's later studies, such as its 2011 IRP Supplemental Coal Replacement Study and its 2011 IRP Update Coal Replacement Study, improperly considered pre-2012 environmental costs at the units as sunk. Sierra Club makes the same point. Sierra Club/300, Fisher/10. Staff agrees with CUB and Sierra Club that this was a flaw with PacifiCorp's decision making process.

In response, PacifiCorp does not appear to argue that updating its analyses for significant milestones is not a reasonable approach. Rather, PacifiCorp points out that if it had updated its analyses for various milestones, such as the market price for gas and construction costs, the PVRR(d) result would have been even a higher positive number. PacifiCorp/200, Teply/11-12, 14.

Nonetheless, Staff stands by its assessment that such updates are important and should be performed.

///

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(iv) Using alternatives to market for replacement power

CUB and Sierra Club argue that PacifiCorp should have considered multiple alternatives for replacing the units' output. CUB/100, Jenks-Feighner/42; Sierra Club/100, Fisher/25. These alternatives include converting the units to run on natural gas or replacing the power with a CCCT. *Id.*

In response, PacifiCorp argues that the alternatives, such as replacing the units with a new generation resource, would have made the PVRR(d) results at the time significantly unfavorable when compared against forward market price curves. PAC/2000, Teply/5. Staff agrees with this assessment. Staff/1500, Colville/24.

(v) Assertion that PacifiCorp acted prematurely before any legal mandate to do so

Finally, permeating throughout their presentations, both CUB and Sierra Club present a claim about a very complex topic: that PacifiCorp improperly decided to make its coal plant environmental investments prior to any legal requirement to do so. *See generally* CUB/100, Jenks-Feighner/26; Sierra Club/100, Fisher/5, 14-17, 19-23; Sierra Club/300, Fisher/2, 5-9. Both parties assert that delaying the investments until they were legally required would have provided the Company with more alternatives, resulting in a different least-cost outcome. *Id.*

PacifiCorp vigorously disputes this charge. As a general theme, PacifiCorp argues that it cannot wait until "ever-evolving" laws and federal agency regulations are settled in order to plan and take steps to meet them. PAC/1500, Teply/8; PAC/2000, Teply/7. PacifiCorp then sets forth a very detailed summary of the status of the relevant laws and how the Company acted to anticipate and meet them. *See generally* PAC/500, Teply/3-20, 25-27; PAC/1400, Woolums/7-15, 20-29; PAC/1500, Teply/1-6, 8.

Staff also sets forth an outline of the relevant regulatory requirements and how they interact with the investments made at the coal plants at issue. *See* Staff/403. Staff does not conclude that PacifiCorp acted prematurely in relation to the regulatory requirements related to the investments at issue.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(vi) Staff's Conclusion

While Staff has concerns with the Company's decision making process identified and discussed as "infirmities," Staff does not recommend a prudence disallowance for the Naughton 1&2 investments at issue in this case.

C. Hunter 1&2

(1) PacifiCorp's Basic Presentation

The Hunter plant is located in Utah and consists of three coal-fired units of which PacifiCorp is the majority owner. PAC/500, Teply/57. For Hunter 1, PacifiCorp seeks recovery of $52 million for a scrubber project. *Id*. at 60. Construction started for the Hunter 1 project in 2011 and was scheduled to be completed in June 2012. *Id*. For Hunter 2, PacifiCorp seeks recovery $25 million for a scrubber project which began in 2010 and was scheduled for completion in March 2012. *Id*. PacifiCorp also seeks recovery for a "baghouse" associated with $1.5 million in investment costs at Hunter 2. *Id*. at 61-62. Finally, PacifiCorp seeks recovery of $0.5 million of investment costs at Hunter 2 for installation of a LNB. *Id*. at 62-63.

PacifiCorp performed PVRR(d) analyses for these investments prior to executing a contract for the retrofits in December 2009. PAC/500, Teply/66. The original analyses showed a positive benefit to making them as opposed to idling the units and using the market as a replacement resource. *Id*. at 66-67. In response to CUB's and Sierra Club's testimonies, PacifiCorp re-ran the PVRR(d) analyses consistent with those parties' critiques and still arrived at a significant positive number for both plants. *See generally* PAC/1500, Teply/21.

PacifiCorp states that the Hunter investments were prudently incurred to meet current, or expected, environmental regulations and obligations.

(2) Staff's Basic Response

Staff set forth its findings about PacifiCorp's decision process infirmities, which included PacifiCorp's decision process related to Hunter 1&2. *See* Staff/1500, Colville/15-17 [set forth in detail earlier in this brief at (3)(B)(2)]. Nonetheless, Staff reviewed PacifiCorp's analyses and

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

concluded that PacifiCorp acted prudently in relation to its investments at Hunter 1&2. Staff/1500, Colville/5. Importantly, Staff observed that under either PacifiCorp's or Sierra Club's revised PVRR(d) analyses, the result was a positive benefit for continuing to operate the Hunter units with the environmental retrofits at issue. *See* Staff/1501.

CUB and Sierra Club both draw a different conclusion for Hunter 1&2. Based upon their respective analyses, CUB and Sierra Club argue that PacifiCorp's investments in the Hunter 1&2 units should be found to be imprudent.

(3) CUB's and Sierra Club's Presentations and Staff's and PacifiCorp's Respective Responses

Identical to Naughton 1&2, briefly and broadly stated, CUB argues that PacifiCorp did not fully analyze alternatives to environmental legal mandates and, if it had done so, the Company may have chosen to phase out the units instead of going forward with the retrofit investments. CUB further asserts that PacifiCorp could have waited longer before going ahead with the investments. CUB also argues that PacifiCorp's PVRR(d) analyses were flawed. CUB/100, Jenks-Feighner/25-27; CUB/200, Jenks-Feighner/35-38.

In addition to raising the same issues as CUB, Sierra Club's presentation, broadly speaking, is that PacifiCorp's analyses were flawed and that the Company prematurely committed to the investments, prior to any legal mandate to do so. Sierra Club/100, Fisher/5-7. Staff will next discuss selected primary points of contention raised by these parties.

(i) 2012 IRP Update Study

CUB relies upon PacifiCorp's 2012 IRP Coal Replacement Study Update to make a series of assertions about what PacifiCorp should, and should not, have done with the two Hunter units. *See* CUB/100, Jenks-Feighner/48-50. CUB asserts the Update shows there is a good chance Hunter 1 may be converted to gas, leaving the Hunter 1 investments stranded. CUB/100, Jenks-Feighner/48-50, 53-54; CUB/200, Jenks-Feighner/24.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

PacifiCorp responds that these claims are speculative and rely upon information not available to PacifiCorp when it made its Hunter 1 decisions. Further, PacifiCorp states that its latest study does not support a conversion of Hunter 1 to gas. PAC/1500, Teply/23.

CUB also relies upon the Update to suggest that PacifiCorp could run Hunter without installing a scrubber by closing it in 2018 or 2020. CUB/100, Jenks-Feighner/50. Again, as the Company notes, this is highly speculative, unsupported and also relies upon information not available to PacifiCorp at the time of its Hunter decisions. *See also* PAC/1500, Teply/24.

(ii) 2009 Study

CUB claims PacifiCorp should have re-run its PVRR(d) analysis using a 2015 shutdown date for the plant. However, even under Sierra Club's alternative PVRR(d) analysis using a 2015 shutdown, the benefit is still positive (supporting making the investments). *See* Staff/1501.[4]

(iii) Assertion that PacifiCorp acted prematurely before any legal mandate to do so

Similar to the assertions with Naughton, Sierra Club argues as a general theme for Hunter that PacifiCorp decided to make its Hunter environmental investments prior to any legal requirement to do so. *See generally* Sierra Club/100, Fisher/6-7, 52, 56-59. Sierra Club argues that delaying the investments until legally required would have provided the Company with more alternatives, resulting in a different least-cost outcome. *Id*.

Like the identical claim related to Naughton 1&2, PacifiCorp vigorously disputes this charge. PacifiCorp argues that it cannot wait until "ever-evolving" laws and federal agency regulations are settled into order to plan and take steps to meet them. PAC/1500, Teply/8; PAC/2000, Teply/7, 23. PacifiCorp then sets forth a very detailed summary of the status of the relevant laws and how the Company acted to anticipate and meet them. *See generally* PAC/500, Teply/3-20, 25-27; PAC/1400, Woolums/7-15, 20-29; PAC/1500, Teply/1-6, 8, 23.

---

[4] As noted earlier, to the extent CUB is raising the issue, Staff incorporates its discussion of the "Boardman" early plant closure issue set forth in the Naughton 1&2 part of this brief as its response to the same issue for Hunter 1&2.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

Staff also sets forth an outline of the relevant regulatory requirements and how they interacted with the investments made at the coal plants at issue. *See* Staff/403. Staff does not conclude that PacifiCorp acted prematurely in relation to these requirements for the investments at issue with Hunter.

(iv) Sierra Club's alleged flaws with Hunter PVRR(d) analysis

Sierra Club presents a detailed list of alleged flaws with PacifiCorp's PVRR(d) analyses for Hunter. *See generally* Sierra Club/100, Fisher/50-59. Before walking through Sierra Club's presentation, Staff notes that it agrees with some of Sierra Club's observations, but ultimately found these deficiencies, while constituting infirmities with the decision making process, did not support a finding of imprudence. Staff/400, Colville/3-5; Staff/1500, Colville/5, 15.

Importantly, Staff also concluded that, even with Sierra Club's revisions to the Hunter 1&2 PVRR(d) analyses, the result was still positive. *Id*.; Staff/1501; Sierra Club/100, Fisher/52. That, combined with the fact that the decision making process was "more good than bad," led Staff to find the investments were prudently incurred. *Id*.

Sierra Club sets forth a detailed list of its modifications to the PVRR(d) analyses for Hunter. *See* Sierra Club/100, Fisher/53-54. Most notably was the use of a 2015 retirement date. PacifiCorp states that, even under Sierra Club's critique, use of a January 1, 2014 retirement date is more appropriate. *See* PAC/1500, Teply/21. Nonetheless, use of either date still results in a positive PVRR(d) benefit. Sierra Club/100, Fisher/52; PAC/1500, Teply/21.

Sierra Club then lists other changes it made to arrive at its revised analyses. Sierra Club/100, Fisher/53-56. Staff will not repeat these but directs the ALJ to PacifiCorp's point-by-point response. *See* PAC/1500, Teply/14-16, 21-23. In the end, regardless of how the dispute is resolved over these miscellaneous points, under both parties' analyses, the PVRR(d) benefit is still positive.

///

///

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(v) Mona to Oquirrh transmission line

Sierra Club asserts that the Company should have considered not constructing the Mona to Oquirrh line because it may have been able to close Hunter (and the Carbon plant) early, thus rendering the line unnecessary. Sierra Club/100, Fisher/56-57. PacifiCorp explains why Sierra Club's position on the Oquirrh line is speculative and unsupported. PAC/1500, Teply/16. Neither PacifiCorp's nor Sierra Club's analyses a shutdown of Hunter as Sierra Club argues and the impact of such a shutdown on the Oquirrh line is highly speculative at best. *See also* Staff/1500, Colville/29.

(vi) Staff's Conclusion

While Staff has concerns with the Company's decision making process identified and discussed as "infirmities," Staff does not recommend a prudence disallowance for the Hunter 1&2 investments at issue in this case.

D. Bridger 3

(1) PacifiCorp's Basic Presentation

The Bridger plant is a four-unit coal-fired plant located in Wyoming and is partly owned by PacifiCorp. PAC/500, Teply/78. For Bridger 3, PacifiCorp seeks recovery for $17 million investment costs incurred for a scrubber project to improve SO2 emissions from the unit. PAC/500, Teply/80. Construction of the retrofits began in July, 2010 and they were placed in service by June 2011. *Id*.; CUB/100, Jenks-Feighner/31.

Prior to executing a contract for the retrofits in December 2008, the Company performed its PVRR(d) analysis for Bridger 3. PAC/500, Teply/84. PacifiCorp states that its PVRR(d) results related to the decision making period for Bridger 3 supported continued operation of the units with the retrofit investments. PAC/500, Teply/85. In response to CUB's and Sierra Club's testimonies, PacifiCorp re-ran the PVRR(d) for Bridger 3 using different assumptions consistent with CUB's and Sierra Club's critiques and still arrived at a positive number for the unit. *See* PAC/1500, Teply/25.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

PacifiCorp asserts that the Bridger 3 investments were prudently incurred to meet current, or expected, environmental regulations and obligations.

(2) Staff's Basic Response

Staff set forth its findings about PacifiCorp's decision process infirmities, which included Bridger 3. *See* Staff/1500, Colville/5, 15-17 [set forth in detail earlier in this brief at (3)(B)(2)]. Nonetheless, Staff reviewed PacifiCorp's analyses and concluded that PacifiCorp acted prudently in relation to its investments Bridger. Staff/1500, Colville/5, 15-17. Importantly, Staff observed that under PacifiCorp's revised PVRR(d) studies, the result was a positive benefit for continuing to operate Bridger 3with the environmental retrofits at issue. *Id*.

(3) CUB's Presentation and Staff's and PacifiCorp's Respective Responses

CUB reaches a different conclusion for Bridger. CUB generally argues that PacifiCorp's investments in Bridger 3 should be found to be imprudent. Staff will summarize CUB's primary arguments and then set forth PacifiCorp's and Staff's responses.

(i) PacifiCorp's March 2011 IRP Update

CUB surmises that when PacifiCorp updates its 2011 IRP Coal Replacement Study Update later this year for its 2013 IRP, the results may show that Bridger 3 should be converted to natural gas. CUB/100, Jenks-Feighner/29. CUB bases its speculation on the trend of lower gas prices. *Id*. In response, PacifiCorp states that all updated analyses support continued operation of Bridger 3 as a coal-fired plant. PAC/1500, Teply/28, 34; PAC/2000, Teply/20.

(ii) CUB's proposed updates to PacifiCorp's 2008 study[5]

CUB recommended changes, particularly switching the plant's assumed closure date to 2015, to PacifiCorp's PVRR(d) study that supported the Bridger 3 investments. *See* CIB/100, Jenks-Feighner/31-32. PacifiCorp did re-run the model per CUB's suggestion, but with a January 1, 2014 closure date. PacifiCorp's results still showed a significant positive PVRR(d)

[5] As noted earlier, to the extent CUB is raising the issue, Staff incorporates its discussion of the "Boardman" early plant closure issue set forth in the Naughton 1&2 part of this brief as its response to the same issue for Bridger 3.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

benefit. PAC/1500, Teply/24-25; Staff/1501.[6] PacifiCorp also points out errors that CUB made with its own study. PAC/1500, Tely/25-26.

Another of CUB's recommendations concerned updating the PVRR(d) analysis for future power prices. CUB's point is that PacifiCorp overestimated the future cost of replacement power for the plant by a significant amount. CUB/100, Jenks-Feighner/32-34. PacifiCorp responded by pointing out errors in CUB's study which, when corrected, failed to support its argument. PAC/1500, Teply/26-27.

CUB further argues that PacifiCorp failed to account for other pollution controls that would be required at Bridger 3, and that if it had done so, the additional costs could have made the overall project not cost effective. CUB/100, Jenks-Feighner/34-35. In response, PacifiCorp points out errors with CUB's study that makes the cost comparisons in the study not useful. PAC/1500, Teply/27. PacifiCorp further states that, despite CUB's allegations to the contrary, its scrubber project does meet Wyoming's BART requirements for SO2 and that the SCR is a separate project that will meet the BART requirements for NOx when installed and that the SCR costs were properly accounted for. *Id.* at 29-30; PacifiCorp/2000, Teply/21; *see also* Staff/ 1500, Colville/36.

Finally, consistent with its overall theme, CUB speculates that PacifiCorp could have run the plant "for a few years" without making the environmental investments and then closed it, and that this would lead an overall lower cost." CUB/100, Jenks-Feighner/35-36; CUB/200, Jenks-Feighner/40. PacifiCorp responded that it cannot operate its coal-fired units by planning to be out-of-compliance under alternative scenarios, and cannot assume successful repeated attempts to successfully negotiate alternative compliance scenarios and deadlines with state and federal regulators. PAC/2000, Teply/21. PacifiCorp also points out that CUB's analysis fails to consider the replacement costs of phasing out the plant. *Id.*

---

[6] Unlike Naughton 1&2 and Hunter 1&2, Sierra Club did not run its own PVRR(d) analysis for Bridger 3 because it is not challenging the prudence of the environmental investment costs at issue in this case.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

Staff also concluded that the environmental investment costs at Bridger 3 were prudently incurred. Staff/400, Colville/3-5; Staff/1500, Colville/5, 15. The revised Bridger 3 PVRR(d) results remain significantly positive. *Id*.; Staff/1501. That, combined with the fact that the decision making process was "more good than bad," led Staff to find the investments were prudently incurred. *Id*.

(iii) Staff's Conclusion

While Staff has concerns with the Company's decision making process identified and discussed as "infirmities," Staff does not recommend a prudence disallowance for the Bridger 3 investments at issue in this case.

E. Wyodak

(1) PacifiCorp's Basic Presentation

The Wyodak plant is a single-unit coal-fired plant located in Wyoming and is partly owned by PacifiCorp. PAC/500, Teply/69. For Wyodak, PacifiCorp seeks recovery for $103 million investment costs incurred for a baghouse project to improve SO2 and PM emissions from the unit. PAC/500, Teply/70-71. PacifiCorp also incurred costs of $11 million for a LNB (NOx control) project. *Id*. at 71-72. Construction of the baghouse retrofits began in 2010 and the retrofits at issue were placed in service in April 2011. *Id*. Both the baghouse and LNB retrofits were installed during a scheduled plant maintenance outage. *Id*.

PacifiCorp states that its PVRR(d) analysis for Wyodak, performed prior to execution of the construction contract in May 2009, supported continued operation of the units with the retrofit investments. PAC/500, Teply/76-77. In response to CUB's testimony, PacifiCorp re-ran the PVRR(d) for Wyodak using different assumptions consistent with CUB's critiques and still arrived at a positive number for the unit. *See* PAC/1500, Teply/36.

PacifiCorp asserts that the Wyodak investments were prudently incurred to meet current, or expected, environmental regulations and obligations.

///

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(2) Staff's Basic Response

Staff set forth its findings about PacifiCorp's decision process infirmities, which included PacifiCorp's decision process related to Wyodak. *See* Staff/1500, Colville/5, 15-17 [set forth in detail earlier in this brief at (3)(B)(2)]. Nonetheless, Staff concluded that PacifiCorp acted prudently in relation to its investments Wyokak. *Id*. Importantly, Staff observed that under PacifiCorp's revised PVRR(d) studies, the result was a positive benefit for continuing to operate the Wyodak unit with the environmental retrofits at issue. *Id*.

(3) CUB's and Sierra Club's Presentations and Staff's and PacifiCorp's Respective Responses

Similar to its assertions with the other plants that CUB challenges, CUB notes that PacifiCorp's PVRR(d) study in 2009 assumed a closure date of 2009 when the Company should have modeled a later year. CUB/100, Jenks-Feighner/55-56. Staff agrees. However, PacifiCorp's update to the PVRR(d) model using a January 1, 2014 closure date still shows a significant positive result. PAC/1500, Teply/36. PacifiCorp further states that, in 2009 when it performed the study, it was not aware of a scenario that would have suggested a later idling or closure date, such as 2018 or 2020 as advocated for by CUB, which would have resulted in a favorable outcome for ratepayers. *Id*. at 37.

CUB also ran a model that purports to show the net benefits of operating Wyodak through 2015. CUB/100, Jenks-Feighner/55. PacifiCorp corrected errors in CUB's study at Teply/1500, Teply37.

For its part, Sierra Club, while not contesting the overall prudence of the Wyodak investments, suggests that PacifiCorp may only be requesting rate recovery for a small portion of the Wyodak baghouse investments at this time in order to unfairly create a favorable prudence determination for the yet-to-come additional investment costs. Sierra Club/100, Fisher/59-60. CUB also makes the same general assertion. CIB/100, Jenks-Feighner/56.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

In response, PacifiCorp states that all Wyodak baghouse project costs are clearly included in this case. PAC/1500, Teply/38. Staff also concluded that the alleged unreported additional investments actually relate to the addition of a SCR which is not required, planned or expected. Staff/1500, Colville/35.

(4) Staff's Conclusion[7]

While Staff has concerns with the Company's decision making process identified and discussed as "infirmities," Staff does not recommend a prudence disallowance for the Wyodak investments at issue in this case.

F. Johnston 4

While CUB initially advocated for a prudence or used and useful disallowance for Johnston 4 (*see* CUB/100, Jenks-Feighner/44-48), it now seems to have abandoned that request. In their rebuttal testimony, CUB witnesses Jenks and Feighner now state CUB's modeling did not demonstrate imprudence at Johnston 4. *See* CUB/200, Jenks-Feighner/41 and accompany text at footnote 68. But, then CUB goes on to state that it still does not believe the approach taken by PacifiCorp in performing its analyses was prudent or reasonable. CUB/200, Jenks-Feighner/41. Sierra Club did not present any issues related to Johnston 4.

Staff is not entirely certain what CUB's final position is on the issue of a disallowance for the Johnston 4 investments. In an abundance of caution, Staff will summarily review the original issues CUB raised related to the plant and set forth Staff's and PacifiCorp's respective responses.

(1) PacifiCorp's Basic Presentation

The Johnston plant is a four-unit coal-fired plant located in Wyoming and is entirely owned by PacifiCorp. PAC/500, Teply/47. PacifiCorp seeks recovery for $104 million investment costs incurred for an environmental retrofit project that will upgrade and improve the

---

[7] As noted earlier, to the extent CUB is raising the issue, Staff incorporates its discussion of the "Boardman" early plant closure issue set forth in the Naughton 1&2 part of this brief as its response to the same issue for Wyodak.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

unit's "particulate matter" (PM) and SO2 controls. PAC/500, Teply/48. The project was completed in 2010. *Id*. at 49.

PacifiCorp states that its original PVRR(d) analysis for Johnston 4, performed prior to execution of the contract for the retrofits at issue in January 2008, supported continued operation of the units with the retrofit investments. PAC/500, Teply/54-55. In response to CUB's testimony, PacifiCorp re-ran the PVRR(d) for the plant using different assumptions consistent with CUB's critiques and still arrived at a positive number for the unit. *See* PAC/1500, Teply/32.

PacifiCorp asserts that the Johnston 4 investments were prudently incurred to meet current, or expected, environmental regulations and obligations.

(2) Staff's Basic Response

Staff set forth its general findings about PacifiCorp's decision process infirmities, which included PacifiCorp's decision process related to Johnston 4. *See* Staff/1500, Colville/5, 15-17 [set forth in detail earlier in this brief at (3)(B)(2)]. Nonetheless, Staff reviewed PacifiCorp's analyses and concluded that PacifiCorp acted prudently in relation to its investments in the unit. *Id*. Importantly, Staff observed that under PacifiCorp's revised PVRR(d) studies, the result was a positive benefit for continuing to operate the Johnston 4 unit with the environmental retrofits at issue. *Id*.

(3) CUB's Presentation and Staff's and PacifiCorp's Respective Responses

CUB's critique is similar to its presentation related to the other plants at issue in this case: allegations that the Company modeled closure of the plant before it was necessary to do so, not studying alternative resources to market purchases, not using a later closure date for its modeling, and using a 2007 forward price curve for investments not used and useful until 2012. *See generally* CUB/100, Jenks-Feighner/44-48. In response, PacifiCorp states, as mentioned above, that its revised PVRR(d) analysis made in response to CUB's critique, still shows a significant positive benefit. PAC/1500, Teply/32. Using updated forward price curves as CUB

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

suggests would not have a major impact on the Company's analysis. *Id*. at 33-34. PacifiCorp further states that when it performed the study in 2008, it was not aware of a scenario that would have suggested a later closure date (such as 2012, 2015, 2017 or 2020 as advocated for by CUB) which would have resulted in a favorable outcome for ratepayers. *Id*. at 34.[8]

In conclusion, while Staff has concerns with the Company's decision making process identified and discussed as "infirmities," Staff does not recommend a prudence disallowance for the Johnston 4 investments at issue in this case.

4. MONA-TO-OQUIRRH TRANSMISSION LINE PROJECT

A. PacifiCorp's Presentation

PacifiCorp proposes to include the costs to plan and build a 500/345kV transmission project known as the Mona-to-Oquirrh Project (Project) and related projects. More specifically, as stated in the Company's opening testimony, the projected costs the Company includes in its case are \$380.6 million for the Project, \$54.7 million for the Clover substation, and \$46.4 million for upgrades at the Terminal substation. Both the Clover and Terminal substations are scheduled to go into service prior to the 2013 test year. *See generally* PAC/700, Gerrard/3. The overall Oregon revenue requirement for the Project is \$13.1 million. PAC/1100, Dalley/14. The Project is expected to go into service in the second quarter of 2013. PAC/700, Gerrard/6. The Project will be located in Utah. *Id*. at 4-5. The test period in this case is the twelve months ending on December 31, 2013 (i.e. a 2013 test year). PAC/1100, Dalley/5. The Company requested approval to file a separate tariff rider to begin recovery of the Project investment costs when it goes into service in 2013. PAC/1300, Griffith/15; PAC/1304.

In its July reply testimony, the Company clarified that the Oregon-allocated revenue requirement is approximately \$12.6 million and that the expected in-service date is May 2013. PAC/1600, Dalley/2. The Company also noted that, while the Project will not be in service

[8] As noted earlier, to the extent CUB is raising the issue, Staff incorporates its discussion of the "Boardman" early plant closure issue set forth in the Naughton 1&2 part of this brief as its response to the same issue for Johnston 4.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

before the conclusion of the rate case, it will be in service during the test year and, by means of the tariff rider, recovery of costs will not begin until that occurs. *Id*. at 4-5. PacifiCorp asserts this circumstance avoids notions of "used and useful," "regulatory lag," and "cherry picking." *Id*. at 6, 8-9. Finally, PacifiCorp sets forth examples where the Commission allowed the rate treatment it is seeking for the Project. *Id*. at 7-8.

The Stipulating Parties agreed to reserve the issue of whether it is appropriate to include the Project in rate base when it comes into service in 2013. The Stipulating Parties reached other agreements in relation to the Project. *See generally* Partial Stipulation at 5-7; Exhibit Stipulating Parties/100 at 7-9.

For the following reasons, Staff, CUB and ICNU (Opposing Parties) oppose PacifiCorp's request to include the Project in rate base, and similarly urge the Commission to the related tariff rider.

B. Opposing Parties' Position

The Opposing Parties collectively present three reasons in support of their recommendation that the Commission not allow the Project to be added to rate base through a separate tariff filing in 2013 as the Company proposes. First, under the "used and useful" standard set forth in ORS 757.355, investments should be completed and used and useful in order to be allowed in rate base. Rates at the conclusion of this proceeding are expected to be effective as of January 1, 2013 but the Project will not be placed in service until May 2013. As such, the Project should not be placed in rates because it will not be used and useful before the conclusion of the rate case proceeding. Staff/1000, Johnson/2; CUB/200, Jenks-Feighner/45; ICNU/100, Deen/24.

Second, the principle of "regulatory lag" recognizes that, between rate cases, events occur that may help or harm either the company or its customers. Consistent with this concept, it is highly unusual to change rates for these "between cases" events. They are expected, on balance, to even out over time. While PacifiCorp is correct that the Commission has allowed for

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

between-case events in certain past situations, that is viewed as the exception to the rule, not the rule itself. The Project here is just one of the "usual" interim events and as such it should be excluded from rate base under the principle of regulatory lag. Staff/1000, Johnson/3; ICNU/100, Deen/24; CUB/200, Jenks-Feighner/45. ICNU further notes that, should PacifiCorp believe application of this principle is somehow unfair, any such lag will likely be very short-lived in light of the fact that the Company has been filing annual rate cases recently. ICNU/100, Deen/24.

Finally, "cherry picking" is a concept related to regulatory lag. Under this notion, PacifiCorp would naturally be expected to select only those events that are beneficial to its shareholders for "extra rate case" recognition. The Commission should not allow this to occur. Staff/1000, Johnson/3. ICNU points out that PacifiCorp is not proposing to pass back to its ratepayers any between rate case savings, including lower capital costs, that may have occurred in the past or may occur at the time the Project is placed in service. ICNU/100, Deen/24.

5. STAFF'S RECOMMENDED POWER COST ADJUSTMENT MECHANISM (PCAM) STRUCTURE

Staff recommends a Power Cost Adjustment Mechanism (PCAM) structure for PacifiCorp that mirrors the structure established for Portland General Electric Company (PGE) in Order No. 07-015. Specifically, Staff recommends that PacifiCorp have a PCAM with the following elements:

1) Neither refunds nor collections if earnings are within 100 basis points of PacifiCorp's authorized return on equity (ROE).

2) Asymmetrical dead band defined by 150 basis points of pre-tax ROE in the case of potential collections and 75 basis points of pre-tax ROE in the case of potential refunds.

3) "90-10" sharing between customers and the Company for amounts outside the dead band, i.e. the Company retains a 10 percent interest in net power cost (NPC) variances outside the dead band.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

4) Earnings test. In the case of actual NPC being greater than forecast, the Company can collect from customers only up to a level at which ROE is 100 basis points less than authorized. Similarly, in the case of actual NPC being less than forecast, the Company must refund to customers only down to a level at which ROE is 100 basis points greater than authorized.

A. The Practical Operation of Staff's Recommended Structure.

If the Company's ROE for the year in question is within 100 basis points of authorized ROE, there will be neither refunds nor collections.

If earnings are more than 100 basis points (either higher or lower) from authorized, then the first step is to compute the Oregon NPC Difference for the calendar year in question. PacifiCorp will calculate actual NPC on a unit (per MWh) basis and compute the difference between actual unit NPC and forecast unit NPC (taken from the Company's final Generation and Regulation Initiative Decision Tools (GRID) model run for the year in question). The product of the difference between forecast and actual unit NPC and actual system load will be designated as the System NPC Difference. The Oregon NPC Difference will then be the System NPC Difference, multiplied by the Oregon allocation factor for NPC. The Oregon NPC Difference is positive if actual NPC are greater than forecasted, negative if actual NPC are less than forecasted.

Next, the dead band will be defined by an Upper Bound and a Lower Bound. The Upper Bound, which is relevant to positive Oregon NPC Differences, is defined as 150 basis points of pre-tax ROE from the Company's last general rate case. The Lower Bound, which is relevant to negative Oregon NPC Differences, will be defined as 75 basis points of pre-tax ROE from the Company's last general rate case. In the case of a positive Oregon NPC Difference, the Collection basis will be the difference between the Oregon NPC Difference and the Upper Bound of the dead band. In the case of a negative Oregon NPC Difference, the Refund Basis will be the difference between the absolute value of the Oregon NPC Difference and the Lower Bound of the dead band. Amounts within the dead band will be subject to neither refund nor collection.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

Finally, 90-10 sharing and ROE-based limits will be applied. In the case of a positive Oregon NPC Difference, 90 percent of the Collection Basis will be eligible for collection from customers. In the case of a negative Oregon NPC Difference, 90 percent of the Refund Basis will be eligible for refund to customers. In other words, the Company will retain 10 percent of the differences outside of the dead band. Then PacifiCorp can collect 90 percent of the Collection Basis only up the point at which earnings are 100 basis points below authorized ROE. Similarly, the Company must refund 90 percent of the Refund Basis only down to a point at which earnings are 100 basis points above authorized ROE. To be consistent with the Order No. 07-015, treatment of collections for PGE, amortization of amounts deferred for collection under the PCAM for PacifiCorp should be limited in any one year to six percent of PacifiCorp's Oregon revenues for the preceding calendar year.

B. The criteria necessary for a good PCAM.

A good PCAM should meet certain criteria. Staff's criteria for a good PCAM are (*See* Exhibit Staff/500, Schue/13-14):

1) A PCAM should trigger refunds or collections only if differences between forecast and actual NPC are large enough to significantly impact earnings, either positively or negatively. A company does not need assistance when actual NPC are greater than forecast, but not greatly so, or when earnings are acceptable in spite of higher power costs. Similarly, when actual NPC are lower than forecast, a company should be allowed to keep the difference if it is not too great, or earnings are not too high, even considering lower power costs.

2) A PCAM should be revenue neutral. Over a period of many years, payments to customers should approximately equal collections from customers.

3) A PCAM should always provide an incentive to keep costs down, regardless of the size of the difference between forecast and actual NPC.

Much of the discussion surrounding PCAMs for PGE and Idaho Power Company (Idaho) in Order Nos. 07-015 and 08-238 concern making sure that these PCAMS meet very similar criteria.

///

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

C. How Staff's Recommended PCAM Meets the Criteria.

The first criterion is that the mechanism should only trigger when the Company's ROE is significantly above or below its authorized level. Staff's provision that nothing will occur if earnings are within 100 basis points of the Company's authorized ROE meets this criterion. Staff's structure further meets this criterion through the provision that collections are made only up to the point at which earnings are 100 basis points below authorized ROE and refunds are made only down to the point at which earnings are 100 basis points above authorized ROE.

The second criterion is that the mechanism should be revenue neutral. Over a period of many years, collections from customers should approximately equal refunds to customers. Staff's asymmetrical dead band meets this criterion. Various components of NPC, and hence overall NPC, can go up more than they can go down. For example, actual market electric prices can be much higher than forecasted, but they generally cannot go below zero. Therefore, a symmetrical dead band would result in more collections than refunds over a period of many years. Staff's asymmetrical dead band would result in a better balance between collections and refunds.

The third criterion is that the Company should always have an incentive to keep NPC as low as possible. Staff's sharing structure, under which the Company retains 10 percent of the exposure to NPC differences in the event of refunds or collections, meets this criterion. Without this provision, the Company would have no incentive to keep incremental NPC as low as possible when it knows it will be refunding or collecting from customers any NPC differences.

D. Senate Bill 838 (SB 838) Does Not Support a Zero-Dead Band PCAM.

PacifiCorp claims SB 838 supports a zero dead band PCAM structure. Context for the Company's argument is as follows: In substantial part due to minimum renewable resource requirements, wind has become a much greater part of its resource portfolio. Wind integration costs themselves are difficult to estimate, and differences between forecast and actual integration costs are impossible to measure. SB 838 requires that the Company be allowed full recovery of

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

renewable resource costs, including those for integrating wind resources. Wind integration costs are not currently being precisely recovered because of differences between actual costs and those included in the GRID forecast used to set rates. The Company views this as inconsistent with SB 838, stating "SB 838 specifically contemplates the use of an automatic adjustment mechanism, like a PCAM, to ensure timely and full recovery of prudent costs. As explained below, neither the Company's [Transition Adjustment Mechanism] TAM nor its [Renewables Adjustment Clause] RAC currently provide for timely and full recovery of these costs." *See* PAC/900, Duvall/15, at lines 17-20.

The Company then advocates a zero-dead band PCAM, which would pass through to customers <u>all</u> differences between forecast and actual NPC, as a remedy for the imperfect collection of actual wind integration costs. The difference between total forecast and total actual NPC would include the difference between forecast and actual wind integration costs, thereby meeting the requirements of SB 838 for renewable resource cost recovery.

There are several problems with this argument. First, wind integration costs are a small part of PacifiCorp's overall NPC. Expected wind output is approximately 9 percent of the Company's load. Wind integration costs, as modeled in GRID, are approximately $26 million on a system basis. This is less than 2 percent of the 2013 system NPC forecast of approximately $1.5 billion. The Oregon share of these wind integration costs, approximately $6.5 million, is less than one half of one percent of the Company's Oregon revenue requirement.

Second, PacifiCorp provides evidence that, due to large fluctuations in wind output from hour to hour, wind integration costs vary greatly, and are very difficult to forecast, from hour to hour. The Company then uses this hour to hour volatility as a basis for the conclusion that it is not possible to accurately forecast wind integration costs on an annual basis, such as for a TAM filing. This is incorrect reasoning. Wind integration studies use statistical and other methodologies to translate the sometimes large hour to hour fluctuations into reasonably accurate annual cost estimates. The Company made use of its 2010 Wind Integration Resource Study

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

(Wind Study included in its 2011 Integrated Resource Plan) to model wind integration costs in the GRID run supporting the 2013 TAM filing (Docket UE 245). In that Docket, the Company stated that it "continues to believe that the level of reserves required to integrate wind generation net of system load, as identified in the Wind Study is appropriate." *See* UE 245 PAC/100, Duvall/15, at lines 13-15.[9]

On the other hand, PacifiCorp states that its GRID modeling does not include the full cost of wind integration. *See* PAC/2200. This implies two things. 1) The Company needs to decide whether it believes GRID includes an estimate of all wind integration costs or not. 2) If the Company believes that GRID does not include all costs from the Wind Study, it should improve its GRID modeling, rather than requesting a zero-dead band PCAM.

Third, the argument is very esoteric, as differences between forecast and actual wind integration costs cannot be measured, as "everything depends on everything else" in NPC. The Company acknowledges this fact, stating that "a modeled redispatch of the Company's system cannot reasonably simulate what would have occurred if wind, low-impact hydro, or solar were not present in real time." *See* PAC/900, Duvall/26, at lines 6-9.

These problems combine to invalidate the Company's argument that problems with wind integration costs call for a zero-dead band PCAM structure. Differences between forecast and actual wind integration costs, the source of the Company's concern, cannot even be measured. Furthermore they are small, relative to wind integration costs themselves, given the progress that has been made in wind integration studies. Specifically, the Company's Wind Study provides the basis for a reasonably accurate forecast of wind integration costs. Finally, overall wind integration costs are less than two percent of NPC, and, on an Oregon basis, less than one half of one percent of the Company's revenue requirement. Trying to remedy small, and in some

[9] Imposing reserve requirements is the primary way in which the Company includes the cost of integrating, i.e. covering the fluctuations of, wind output in its GRID modeling.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

respects esoteric, problems with wind integration costs by allowing a straight pass-through to customers of all prudently incurred NPC would be SB 838 overkill.

E. Variances between Forecast and Actual Wind Value Variances Do Not Support a Zero-Dead Band PCAM:

PacifiCorp discusses the differences between GRID forecast and actual values of wind output for the years 2007 through 2011. *See* PAC/1800 pages 4 – 6. The Company summarizes the differences and concludes that the differences support a zero-dead band PCAM structure, again citing SB 838's provisions for recovery of all prudently incurred renewable resource costs. *See* PAC/1801. The Company's approach is incomplete and does not support its conclusions.

Wind output value variances are driven by two factors, market price variances and wind output variances. For the five-year period from 2007 through 2011, overall market price variances were 23 percent of forecast, whereas overall output variances were only 3 percent of forecast. *See* PAC/1801. In other words, output was generally close to expected, but market prices were substantially different (in this period, lower) than expected. In each of the five years, actual market prices were substantially lower than those forecast via the forward curves used in the GRID models to set rates for that year. These price differences, caused by actual market prices decreasing "ahead" of the forward curves, are then the dominant factor driving the Company's wind output value difference calculations.

These calculations are, however, not meaningful. For a representative year, GRID included expected wind output as a means of meeting customer load. For Company-owned wind resources, GRID included expected output and no fuel costs. For contractual wind, GRID included expected output and (generally per MWh) contractual costs. Then, in the actual year, wind output was approximately the same as expected, but market prices were lower than expected. However, these lower market prices do not interact with wind output in a way that changes either the Company's costs or its revenues. Part of customer load is still met with the

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

wind output, and customers' rates do not change. Hence, the Company's revenues do not change. The Company incurs no fuel costs for its own wind resources, consistent with GRID.

Finally, the Company incurs contractual wind costs equal to the GRID forecast, as contractual wind output is equal to the forecast.

A more overall system approach reaches the same conclusion. The Company focuses on the value of wind output variances, which is only one element in a complete picture. Actual market prices being lower than forecast results in variances in all sorts of things, not only the value of wind output. Therefore, a more complete conceptual framework is the following. It is sometimes useful to think of valuing all NPC elements at market prices. Without any generating resources, the cost to serve load is simply the market value of the power required to do so. Then the Company's generating resources can be viewed as cost offsets, i.e. customers need to be credited with the market value of the output, less the fuel cost (zero in the case of renewable resources), of these generating resources. Various other firm purchases and sales already set at the time of the Company's final November GRID run need to be valued in a similar way – market value of power, minus costs, in the case of purchases; revenue minus market value of power in the case of sales. What is then left over is a net open position, short-term market-priced purchases net of short-term market-priced sales.

In PacifiCorp's case, the net open position is a surplus, as, in GRID terminology, system balancing sales are greater than system balancing purchases. This net (long in PacifiCorp's case) position, to the extent not hedged, is what is exposed to differences between the forward curve-based market prices used in the GRID forecast and actual market prices. This net unhedged position is then what is relevant to discussions concerning the impact of variances between GRID's forward curve-based market prices and actual market prices. However, individual components of the overall net position are not, on a stand-alone basis, relevant. In particular, the differences between the forecast and actual values of wind output calculated in Exhibit PAC/1801 are not relevant.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

F. 2007-2011 Results Do Not Justify a Zero-Dead Band PCAM Structure

PacifiCorp presents data demonstrating that GRID under-forecast NPC for each of the five years from 2007 through 2011. The average annual under-forecast amount was approximately $100 million on a system basis, and $25 million on an Oregon-allocated basis. *See* Exhibit PAC/900, Table 8, page 16. The Company also demonstrates that, under Staff's recommended PCAM structure, the dead band would have precluded any collections from customers, as under-forecast amounts would have been within the dead band in each of the five years. *See* PAC/1800, table 4, page 12 and PAC/2200, table 4, page 3. It is the Company's view that this data supports a dead band of size zero. Staff disagrees with this conclusion for two reasons.

First, results for 2007 through 2011 may not be representative of results over a long period of time. For example, for the first six months of 2012, actual unit NPC were slightly <u>lower</u> than in the GRID forecast used to set current rates. Second, under-recovery amounts shown in the various tables cited above were always within a range that could be absorbed by the Company without unduly affecting earnings. The worst annual earnings impact was less than 120 basis points. The Oregon-allocated under-forecast amounts shown on each of the Table 4's cited above are as high as approximately $34 million, which might seem high in an absolute sense. However, the under-forecast amounts need to be considered in the context of (Oregon) authorized pre-tax earnings, which were almost $290 million in 2011.[10]

G. The Company's Alternative Suggestion of a $14 Million/$7 Million Dead Band is Inappropriate.

Although the Company strongly advocates a dead band of size zero, it does discuss a dead band based on two factors – the dead band which currently applies to PGE and the Company's Oregon-allocated NPC relative to PGE's. Order No. 10-478 approved a Stipulation

---

[10] The Company's figure for 150 basis points of 2011 pre-tax earnings is $43.2 million (*See* PAC/2200, Duvall/4, Line 10). Given an authorized ROE of approximately 10 percent, authorized earnings were then $43.2 million x 1000/150, or $288 million.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

which changed PGE's dead band structure from 150/75 basis points to $30 million/$15 million. PacifiCorp then notes that its Oregon NPC are approximately one half of PGE's. Therefore, the Company suggests that an alternative to the zero dead band it advocates is a dead band approximately half the size of PGE's, or a $14 million/$7 million structure. *See* PAC/1800, Duvall/4, at lines 16-18.

Staff disagrees with this construct for two reasons. First, PGE's change from a basis point to a fixed dollar dead band structure was the result of a stipulation. PGE gave up some items in order to obtain the fixed dollar dead band. PacifiCorp is not offering to give up anything to obtain a fixed dollar, rather than a basis point determined, dead band. Second, a dead band should be based on a company's ability to absorb cost variances, not on the size of its NPC. A Company's ability to absorb cost variances is a direct function of its rate base.[11] PacifiCorp's Oregon-allocated rate base is approximately the same size as PGE's. Therefore, PacifiCorp should have a dead band of approximately the same size as PGE would have under a 150/75 basis point structure. It should be noted that Idaho's dead band, consistent with Order No. 08-238, is wider than the 150/75 basis point structure given to PGE in Order No. 07-015. Specifically, Idaho's dead band is bounded by 250 basis points for higher than forecast costs and 125 basis points for lower than forecast costs.

H. Rate Setting Policy Considerations.

In opposing Staff's dead band recommendation, the Company states that "[r]ates are not set on a utility's ability to withstand losses. Rates are set to allow a utility to recover its prudently incurred costs. Building a deadband around a utility's presumed capacity to absorb losses is inconsistent with this basic ratemaking goal." *See* PAC/2200, Duvall/6, at lines 10-13.

The Company confuses basic rate setting and true-up mechanisms, such as a PCAM. Rates for a particular test year are based on the best forecast of prudently incurred costs for that

[11] Authorized earnings are the direct measure, but they are tied to rate base through stable (for relevant one-year periods) tax rates and authorized capital structures and rates of equity return.

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

year. This does not depend on dead bands or other parameters of true-up mechanisms. The sequence of events is the following. First, rates are set based on the best forecast of costs to be prudently incurred in the test year. Then a company incurs actual costs for that year. Finally, if a true-up mechanism is in place, forecast and actual costs are compared, and the difference is allocated between customers and shareholders. Dead bands are an example of a true-up mechanism allocation factor. They do not interfere in any way with setting rates based on the best available forecast of costs to be prudently incurred in the test year.

I. Sharing as an Incentive for Cost Minimization.

Staff advocates 90/10 sharing outside of the dead band, as having a 10 percent share of any cost variances will incent the Company to keep costs as low as possible, even though most cost variances are being passed on to customers. The Company disagrees, stating the "A prudence review of the actions taken by the Company as it responds to these uncontrollable factors [such as changing market prices] is the only effective tool to incentivize prudent, cost-effective system operation. Artificial sharing bands do not incentivize the Company to be 'more' prudent because the sharing cannot be avoided no matter how prudently the Company acts." *See* PAC/2200, Duvall/19, at lines 19-23.

The Company's statement that only the threat of a disallowance through a prudency review will incent it to keep NPC as low as possible is unduly negative. A prudency review is time and work intensive, and would only be untaken in the case that the Company's actions might have resulted in large unnecessary increases in NPC. However, most of the Company's power cost operational decisions result in small changes in NPC. Staff's sharing structure insures that the Company will make these small operational decisions as well as possible, as the Company will retain 10 percent of the results of those decisions in the case of cost variances being largely passed on to customers, i.e. when cost variances are outside of the dead band and payments to or collections from customers are not precluded by the earnings test. Again, the

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

Company's position that only the threat of a prudency disallowance will make it operate its system in the least cost manner is unduly negative.

J. Need for Annual TAM Proceedings.

The Industrial Customers of Northwest Utilities (ICNU) have argued against annual TAM filings, in substantial part because they are time and resource intensive. However, Staff believes that annual filings are necessary to ensure that power cost rates are set to match actual costs as accurately as is possible. This is particularly true in the context of a PCAM.

Natural gas and market electric prices can vary substantially from year to year. Contractual prices for coal and firm power purchases and sales can change as well. Finally, the Company is obligated to purchase the output of new Public Utility Regulatory Policies Act (PURPA), which are priced substantially above the Company's average net power costs. It would be unfair to systematically subject the Company to "PURPA regulatory lag."

A PCAM works with differences between forecast and actual NPC on an annual basis. It does not make sense to potentially increase these differences by setting the forecast less accurately than is possible and the most accurate option is an annual forecast. Although the 2013 TAM forecast is almost the same as the 2012 TAM forecast, this is an exception. Power prices should be based on the most recent information available, particularly in the context of a PCAM.

///

///

///

///

///

///

///

///

///

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784

6. CONCLUSION

For the reasons stated, the Commission should issue an Order consistent with Staff's recommendations for all remaining contested issues.

DATED this 4th day of October 2012.

Respectfully submitted,

ELLEN F. ROSENBLUM
Attorney General

s/Michael T. Weirich
Michael T. Weirich, #82425
Jason W. Jones, #00059
Assistant Attorneys General
Of Attorneys for Staff of the Public Utility Commission of Oregon

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
Telephone: (503) 947-4342 Fax: (503) 378-3784