1	BEFORE THE PUBLIC	CUTILITY COMMISSION
2	OF O	REGON
3	U	E 246
4	In the Matter of	
5 6	PACIFICORP, dba PACIFIC POWER's Request for a General Rate Revision	STAFF'S POST-HEARING BRIEF
7		
8	1. INTRODUCTION	
9	The Staff of the Public Utility Commiss	sion of Oregon (Staff) previously filed a pre-
10	hearing brief that set forth and explained the le	gal standards for review, considerations for a
11	possible prudence disallowance, the state of the	e record, and Staff's position on the remaining
12	open issues. Staff stands by its pre-hearing bri	ef and incorporates it by this reference as its
13	response to matters not discussed in this post-h	earing brief. Indeed, Staff intends to limit its
14	discussion of issues in in its post-hearing brief	to only those with aspects that warrant further
15	exploration. In this regard, Staff will primarily	address certain facets of PacifiCorp's (PacifiCorp
16	or Company) request for recovery of its enviro	nmental controls (sometimes referred to as
17	"retrofits") at select thermal generation plants (	"coal plants") and its request for a power
18	adjustment mechanism (PCAM) and the Indust	rial Customers of Northwest Utilities' (ICNU)
19	related issue on the Transition Adjustment Med	chanism (TAM).
20	2. ENVIRONMENTAL CONTROL INVES	STMENTS (COAL PLANT ISSUE)
21	A. CUB and Sierra Club seemed to have le	mited their challenge to only certain coal plants
22	As a preliminary matter, Staff observes	that, as this proceeding has progressed, it has
23	been become increasingly less clear which of t	he seven coal plants (with their respective
24	investments) are expressly being challenged by	the Citizens' Utility Board (CUB) and Sierra
25	Club. CUB now seems to primarily contest on	ly the environmental retrofits at the Naughton
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1	Units 1 and 2 (Naughton 1&2) and at Jim Bridger Unit 3 (Bridger 3). See CUB Prehearing Brief
2	at 41 ("So for this docket CUB's focus is trained on Naughton 1 and 2 and Bridger 3") and
3	CUB/200, Jenks-Feighner/41 ("While CUB's modeling of other plants [Staff note: "other" in
4	context refers to plants other than Naughton 1&2 and Bridger 3] did not demonstrate
5	imprudence, it did support our concerns about PacifiCorp's approach, its unwillingness to look
6	for a least cost/least risk solution, and its failure to update its analysis as conditions changed.").
7	Similarly, Sierra Club, while ostensibly contesting the retrofits at Naughton 1&2 and
8	Hunter Units 1 and 2 (Hunter 1&2), seems now to concentrate mainly on the environmental
9	control investments at the Naughton units. This shift in Sierra Club's focus is shown by its final
10	round of testimony in which Sierra Club witness Fisher stated that he was going to address only
11	Naughton issues because he had had "insufficient opportunity to review the Company's new
12	evidence with regards to the Hunter plant." See Sierra Club/300, Fisher/1. Witness Fisher made
13	a similar statement at the oral hearing held October 15, 2012, when he testified in response to a
14	question about PacifiCorp's revised PVRR(d) analyses that "I can only talk about Naughton 1
15	and 2 with any degree of certainty." Transcript (TR) at 187 (Fisher).
16	B. Staff's conclusions remain unchanged
17	Staff's position has not changed from that set forth in its reply testimony (Staff/1500) and
18	as summarized in its prehearing brief. Staff identified certain infirmities or deficiencies with
19	PacifiCorp's decision-making process. However, in applying the applicable legal standard to the
20	facts, Staff concluded that the Company's actions with regard to each of the coal plants at issue
21	were ultimately not imprudent.
22	C. The Boardman phase-out issue
23	Briefly stated, this issue concerns CUB's assertion that PacifiCorp knew, or should have
24	known, when it was formulating its retrofit plans in 2008 that early phase-out of a coal plant was
25	permissible under the so-called "Best Available Retrofit Technology" (BART) analysis. The
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1	early phase-out analytical option was first employed by Portland General Electric in arriving at
2	its decision to close its Boardman coal plant in 2020 rather than at the end of its depreciable life.
3	In response, both PacifiCorp and Staff stated that the Boardman approach was not
4	officially recognized as being permissible by regulators until late 2010, too late to be employed
5	by PacifiCorp in preparing its analysis for the coal plants at issue, and after construction was
6	well under in way in 2009 and early to mid-2010 to install the retrofits (construction dates vary
7	depending upon the coal plant). Staff discussed the "Boardman issue" in more detail in its
8	prehearing brief at pages 8-9.
9	The only information to add to this discussion is that CUB witness Bob Jenks testified at
10	the hearing that certain "posts" on CUB's website dated January 15, 2010 characterized the
11	approval by regulators of the Boardman phase-out as a "new" approach and as a "turning point in
12	the discussion about Boardman." See TR at 212-213 (CUB witness Jenks referring to PacifiCorp
13	Cross Exhibit 2304). In other words, CUB's position in its Website posts is seemingly
14	inconsistent with its assertion that PacifiCorp knew, or should have known, in 2008 (or even
15	2009) that using a Boardman type phase-out approach under BART was permissible (or even
16	possible).
17	D. Commissioners' request for briefing of legally enforceable emissions limits for
18	PacifiCorp's coal plants at issue
19	In its Briefing Memorandum issued November 1, 2012, the Commission requested,
20	broadly paraphrased, that PacifiCorp identify and explain the laws and facts that required it to
21	install the SO2 environmental control retrofits at issue. The Commission also invited other
22	parties to address its questions as well. Staff believes it can best contribute to the discussion by
23	answering selected parts of the Commission's questions straight-out, followed by a brief
24	explanation. In this regard, Staff will not replicate, unless necessary to do so, the prior
25	explanations of the law, and general facts, which the parties previously presented.
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(1) Did participation in the SO2 Backstop Trading Program in Wyoming and Utah trigger any legally enforceable emissions limits or unit-specific pollution controls applicable to PacifiCorp's plants or units?
Very briefly stated, Wyoming, Utah and New Mexico are all subject to the market trading
provisions for SO2, or what has been referred to as the "Backstop Trading Program" (Program).
The Program was developed under rules implementing the federal Clean Air Act (CAA)
provisions intended to remedy impaired visibility in areas identified as Class I areas under the
CAA and its implementing provisions. See Clean Air Act, Section 169A, 42 U.S.C. §
7491(a)(1). Typically, a state with a Class I area must submit a "state implementation plan"
(SIP) to the EPA under 40 C.F.R. § 51.308 (Section 308). Certain western states (including
Wyoming, Utah and New Mexico) had the option to submit regional haze SIPs for Class I areas
on the Colorado Plateau that are based on the recommendations of the Grand Canyon Visibility
Transport Commission (GCVTC). See 40 C.F.R. § 51.309 (Section 309). Utah, Wyoming and
New Mexico have done so. <sup>1</sup>
The first part of the Commission's question asks whether participation in the Program
triggers any legally enforceable emissions limits for PacifiCorp's coal plants (or units). The
answer is no, participation in the Program in and of itself did not trigger any enforceable
emissions limits.
However, Wyoming and Utah were required to include in their Section 309 SIP SO2
emissions caps or "milestones" that decline over time through 2018 for stationary sources. The
Program will be triggered if a milestone is not met in a particular year. 40 C.F.R §
51.309(d)(4)(v). A Section 309 SIP must provide for penalties in any year of excessive
1 Wyoming submitted its first Section 300 SIP to the Environmental Protection Agency (EPA) in
2003 and subsequently submitted revised versions in 2008 and 2011. Utah submitted its revised
Section 309 SIP to the EPA in 2008. The EPA has not approved either state's SIP but recently has proposed to adopt them for SO2. PAC/1400, Woollums/11; Approval, Disapproval and
Promulgation of State Implementation Plans; State of Utah; Regional Haze Rule Requirement for Mandatory Class I Areas, 77 Fed Reg 28825-02 (May 16, 2012); Approval and Promulgation
of State Implementation Plans; State of Wyoming; Regional Haze Rule Requirements for Mandatory Class I Areas, 77 Fed Reg 30953-01 (May 24, 2012).
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1	emissions following 2018, based on the 2018 milestone. 40 CFR 51.309(d)(4)(vi). Also,
2	beginning in 2018, a Section 309 SIP must prohibit emissions from covered stationary sources if
3	SO2 emissions exceed the year 2018 milestone. However, a revised implementation program

- may be approved by EPA as meeting Best Available Retrofit Technology (BART) and making 4
- 5 reasonable progress under 40 C.F.R. §51.308(f).
- 6 As to the second part of this question, all parties, including staff, appear to agree that the
- 7 309 SIPs are *not* source-specific but instead set regional emissions limits for stationary sources.
- Instead of source-specific BART controls, states may implement the Backstop Trading Program 8
- 9 as long as they can show that it will provide greater reasonable progress than would be achieved
- by the application of BART. 40 C.F.R. § 51.309(d)(4). Under Wyoming's SIP, the 2018 10
- 11 milestone for PacifiCorp's coal plants is based on an emissions rate of 0.15 lbs/mmBtu (0.15
- 12 Btu). Under Utah's Section 309 SIP, each plant must achieve an emissions rate of 0.12
- 13 lbs/mmBtu (0.12 Btu). See PAC/2003, Teply/64; see also Milestones for Wyoming: 77 Fed Reg
- 14 30953, 30963 (May 24, 2012); Milestones for Utah at 77 Fed Reg 28825-02, 28834 (May 16,
- 15 2012).
- 16 (2) What documents in the record identify the source and effective date of the required emissions limits or pollution controls? 17

There were source-specific requirements for SO2 (and PM and NOx) controls for each of 18

- the coal plants at issue and these requirements are set forth in the permits Wyoming and Utah 19
- issued consistent with their SIPs. A discussion of each permit requirement is found throughout 20
- PacifiCorp's submitted testimony and a concise summary of this information is located at pages 21
- 23-25 of the Company's Prehearing Brief. See also PAC/500, Teply/28-86.<sup>2</sup> 22

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<sup>23</sup> <sup>2</sup> Sierra Club has argued that PacifiCorp voluntarily sought the permits at issue and suggests this means PacifiCorp was not really under any emission limitations requirement. In turn, PacifiCorp

<sup>24</sup> has argued that it was prudent for it to seek the permits when it did. Staff has stated it agrees with PacifiCorp on this point. But, setting this particular dispute aside, Staff concludes that,

<sup>25</sup> once projects were installed under the terms of the relevant permits, any emissions limitations included in the permits were binding up PacifiCorp. Further, Sierra Club appears to agree with this assessment. See, e.g., Sierra Club Prehearing Brief at 20 ("Once the permitted construction 26

1	Copies of the permits are found in the record as follows:
2	(1) Naughton 1&2: Permit MD-5156 found at Sierra Club/105, Fisher/2-4; and Permit MD-6042 found at PAC/2002.
3	
4	(2) Hunter 1&2: Permit (Utah Approval Order DAQE-AN0102370012-08) (SO2 at Hunter 1, SO2 and NOx at Hunter 2) found at PAC/2003, Teply/64.
5	(3) Bridger 3: Air Quality Permits MD-1552 and MD-1552A (SO2) found at
6	PAC/2004, Teply/131; MD-6040 found at PAC/2004.
7	(4) Dave Johnston Unit 4: Air quality Permit MD-5098 and BART Permit MD-
8	6041 found at PAC/2005, Teply/237-259.
9	(5) Wyodak: Air Quality Permit MD-7487, BART Permit MD-6043; Air Quality Permit MD-7487; and BART Permit MD-6043, all found at PAC/2006,
10	Teply/118-161.
11	Before turning to the Commission's next question, Staff will address Sierra Club's
12	assertion that the Wyoming Department of Environmental Quality (WYDEQ) rescinded in its
13	BART Application Analysis (dated May 28, 2009) (WYDEQ Analysis) the emissions control
14	mandates set forth in the Naughton 1&2 SO2 permits. See, e.g. Sierra Club Prehearing Brief at
15	12, referencing Sierra Club/111 at 53. Staff disagrees with Sierra Club's interpretation of the
16	WYDEQ Analysis.
17	The May 28, 2009 WYDEQ Analysis is a document describing the BART analysis the
18	EPA required Wyoming to conduct whether or not Wyoming decided to proceed with the
19	Section 309 SO2 Milestone and Backstop Trading Program. This is illustrated by Wyoming's
20	statement that "Sources that are subject to BART are required to address SO2 emissions as part
21	of the BART analysis even though the control strategy has been identified in the Wyoming §309
22	Regional Haze SIP." See Sierra Club/111 at 2 (WYDEQ Analysis).
23	
24	
25	projects (i.e. the SO2 scrubbers) were installed, PacifiCorp had to meet a performance limit of
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1	As such, the results of the EPA-required BART analysis had no bearing on what
2	Wyoming required PacifiCorp to do in relation to SO2 because Wyoming had decided to go
3	forward instead with the SO2 Milestone and Backstop Trading Program. Thus, in context, it
4	makes sense for Wyoming to conclude that the technology determined through a BART analysis
5	to be BART would not be required because Wyoming had decided to comply with the Regional
6	Haze requirements for SO2 through the Backstop Program rather than through BART. See
7	Sierra Club/111 at 53.
8	This interpretation of the WDEQ Analysis is reinforced by the fact that permits MD-5156
9	and MD-6042 were issued in December 2009, after the May 28, 2009 Wyoming BART
10	Application Analysis. In this way, the permits supersede the WYDEQ BART Application
11	Analysis.
12	It is also important to remember that by its Analysis, the WYDEQ requires PacifiCorp to
13	participate in the Backstop Trading Program. Consistent with this, the Naughton permits require
14	PacifiCorp to comply with all requirements of the Program. As stated, the Backstop Trading
15	Program is set forth in Wyoming's Section 309 SIP. The 309 SIP sets year-by-year SO2
16	emission milestones for the entire three state region covered by the Regional SO2 Milestone and
17	Backstop Trading Program. The Wyoming SO2 milestones are based on unit emission rates of
18	0.15 # SO2/MMBTU in 2013 (309 SIP Technical Support Document Spreadsheet entitled 10-6-
19	10 milestone).
20	(3) What plant-specific emissions limits applied to Pacific Power for the years 2006-2009?
21	As far as Staff is aware, there is nothing in the record discussing what plant-specific
22	emissions limits applied to PacifiCorp for the referenced timeframe of 2006-2009 (technically,
23	some permits discussed immediately above were issued on the last day of the referenced
24	timeframe). The Company's plants in Wyoming were stationary sources subject to allowance
25	limitations under the Section 309 SIP effective May 7, 2008 for SO2 emissions. The Company's
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1	plants in Otan were stationary sources subject to allowance limitations under the Section 309 SIP
2	effective November 10, 2008 for SO2 emissions. The requirements of the Section 309 SIPs were
3	to be integrated into source permits. See Utah Administrative Code R307-25-14 (2008);
4	Wyoming Department of Environmental Quality Rules Ch.14 Section 2(m) (2008).
5	(4) If the plant-specific emissions limits were exceeded, on what date would PacifiCorp be penalized for the exceedance? On what date would PacifiCorp have to demonstrate compliance with any requirements resulting from the exceedance?
7	Staff combines these two questions and answers them as follows. Neither PacifiCorp nor
8	Sierra Club discussed these matters in any detail. Indeed, at the oral hearing, PacifiCorp witness
9	Woollums testified that she had not become knowledgeable about the assessment of penalties
10	because the Company had no intention of exceeding the required emissions limits. See TR at 58-
11	59 (Woollums). Sierra Club witness Fisher testified that he was not familiar with the penalty
12	process either. TR at 183-186 (Fisher).
13	Preliminarily, Staff notes that it has not had sufficient time to be able to respond to these
14	complex questions with absolute certainty. Having said that, Staff first generally observes that
15	there may be penalties under state and federal law for violating permit conditions. For example,
16	the states may assess a penalty up to \$10,000 for each violation per day for a permit violation.
17	Wyoming Statutes 35-11-901; Utah Code 19-2-115(2).
18	Under the Wyoming and Utah Section 309 SIPs, provision is made for special penalties
19	to support meeting the 2018 milestone for SO2 emissions, consistent with 40 CFR §
20	51.309(d)(iv)(B). If the Program is triggered and it will not start until after the year 2018,
21	Wyoming and Utah may assess a special penalty against sources within their respective states
22	that exceed the 2018 milestone. Each state shall seek at least the minimum financial penalty of
23	\$5,000 per ton of SO <sub>2</sub> emissions in excess of a source's allowance limitation. Any source may
24	resolve its excess emissions violation by agreeing to a streamlined settlement approach where the
25	source pays a penalty of \$5,000 per ton or partial ton of excess emissions and the source makes
26	the payment within 90 calendar days after the issuance of a notice of violation. See Wyoming
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1	Department of Environmental Quality Rules at Chapter 14, Section (2)(1); TR at 37-38; Utah
2	Administrative Code R307-250-13 (2008).
3	Any source that does not resolve an excess emissions violation in 2018 in accordance
4	with the streamlined settlement approach will be subject to civil enforcement action, in which the
5	State shall seek a financial penalty for the excess emissions based on the State's statutory
6	maximum civil penalties. The special penalty provisions for 2018 will apply for each year after
7	2018 until the State determines that the 2018 milestone has been met. See Wyoming Department
8	of Environmental Quality Rules at Chapter 14, Section (2)(l); TR at 37-38; Utah Administrative
9	Code R307-250-13 (2008).
10	In addition, under both the Utah and Wyoming Section 309 SIPs, a stationary source wil
11	incur an allowance deduction penalty if the source cannot meet allowance limitations under the
12	Program. The source's emissions allowance may be reduced by an amount equal to three times
13	the source's tons of excess emissions if they are unable to show compliance after the Program is
14	triggered and allowances are recorded. See Wyoming Department of Environmental Quality
15	Rules at Chapter 14, Section (2)(k); Utah Administrative Code R307-250-12(3) (2008).
16	(5) Other than its PVRR(d) analysis, did Pacific Power consider any other compliance alternatives to installing the emissions controls at its BART specific units?
17	No Staff input.
18 19	(6) What evidence in the record demonstrates the company's consideration of compliance alternatives such as finding an alternative generating source to meet customers' needs?
20	No Staff input.
21	3. STAFF'S RECOMMENDED PCAM STRUCTURE
22	A. PacifiCorp's reliance on old PGE testimony in UE 180/181/184 should be given little or no weight.
23	At the hearing, PacifiCorp asked Mr. Schue about Exhibit PGE/1900 in Docket UE
24	180/181/184. This Exhibit is rebuttal testimony of Jay Tinker, Stephen Schue, and Ted Drennan
25	in that Docket. Mr. Schue was a witness for Staff in this proceeding, sponsoring Exhibits
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1	Staff/500 and Staff/1400. PacifiCorp noted that Exhibit PGE/1900 included analytical support
2	for Portland General Electric Company's (PGE) position in UE/180/181/184 that a Power Cost
3	Adjustment Mechanism (PCAM) should not include a dead band.
4	There are three important points related to Exhibit PGE/1900 in Docket UE 180/181/184.
5	First, Mr. Schue did not work on the dead band portion of Exhibit PGE/1900. His assignments
6	concerned extrinsic value of thermal (primarily natural gas) resources, implications of the on-line
7	date for the Port Westward facility, and forced outage rates for thermal (primarily coal) plants.
8	Second, the dead band should be considered in context. In Docket UE 180/181/184, the
9	Commission issued Order No. 07-015, which included several related decisions. These included
10	whether PGE should have an Annual Update Tariff (AUT, for power costs), whether PGE should
11	have a PCAM at all, and, finally, what the parameters of the PCAM, if ordered, should be.
12	These parameters included i) whether the PCAM should include a dead band, and, if so, what the
13	characteristics of such a band should be, ii) whether there should be sharing outside of the dead
14	band, and, if so, what the percentages should be, and iii) whether there should be an earnings
15	test, and, if so, what the structure of such a test should be. Finally, we now have evidence on the
16	results of the inter-related decisions made in Order 07-015, specifically the AUT and PCAM
17	awarded to PGE.
18	Order No. 07-015 resulted in PGE's AUT, which revises its forecast of net variable
19	power costs (NVPC) on an annual basis and a PCAM to allocate differences between forecast
20	and actual NVPC. These differences were allocated to shareholders and ratepayers by means of
21	an asymmetrical dead band (for 2007-2010, set by 75 basis points of pre-tax return of equity
22	(ROE) for actuals less than forecast and 150 basis points for actual greater than forecast; then
23	\$15 million and \$30 million beginning in 2011), 90/10 sharing outside of the dead band (90
24	percent to customers, 10 percent to PGE), and an earnings test ( under which PGE would only
25	refund down to a level of earnings 100 basis points above its authorized ROE and only collect
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1	from customers up to a level of earnings 100 basis points below its authorized ROE). We now
2	have data for the five years during which this structure has operated. For the 2007-2011 period,
3	this structure has resulted in refunds of approximately \$22 million to customers, approximately
4	\$16.5 million for 2007 and \$5.5 million for 2011. For context, these refunds averaged less than
5	0.7 percent of PGE's NVPC and less than 0.3 percent of PGE's overall revenue requirement.
6	PGE's average actual earnings for 2007-2011 were 9.90 percent, or very close to average
7	authorized earnings of 10.04 percent for this five-year period. In summary, the combination of
8	an AUT and a PCAM including a dead band, sharing, and an earnings test has worked well in
9	practice. Customers received or will receive <sup>3</sup> modest refunds for two of the years and PGE's
10	actual earnings were very close to authorized.
11	Staff's testimony in this Docket (Exhibits Staff/500 and Staff/1400) is informed by these
12	good results for PGE and its customers over the 2007-2011 periods. Specifically, Staff supports
13	continuation of annual Transition Adjustment Mechanism (TAM) filings and a PCAM with a
14	dead band/sharing/earnings test structure like that which Order No. 07-015 directed PGE to
15	implement.
16	B. The two Standard & Poor's Ratings Direct reports PacifiCorp introduced are irrelevant to this proceeding.
17	For the hearing, PacifiCorp introduced two Standard & Poor's Ratings Direct reports, one
18	dated March 10, 2008, the other dated October 4, 2012. These reports discuss the possibility that
19	renewable portfolio or energy standards might negatively impact utilities' credit quality.
20	However, as Staff noted at the hearing, the possibility of Oregon's Renewable Portfolio Standard
21	adversely impacting PacifiCorp's credit quality is very small. The two ways in which a
22	renewable portfolio standard might negatively impact a utility's cost recovery, and hence
23	
24	
<ul><li>25</li><li>26</li></ul>	<sup>3</sup> The Stipulation in Docket UE 256, PGE's 2011 PCAM filing, will result in a \$5.5 million refund to customers in 2013. Order No. 12-402 approved this refund.
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1	earnings, potential, are i) regulatory lag for capital and other fixed expenditures, and ii)
2	insufficient recovery of variable costs. Neither of these is a problem for PacifiCorp in Oregon.
3	Most of PacifiCorp's renewable resource costs are covered by the Company's Renewable
4	Adjustment Clause (RAC, Tariff Schedule 202) structure, included in the Stipulation approved
5	by Order 07-572 (Docket UM 1330). In particular, the RAC covers large capital expenditures
6	incurred between general rate cases, which might otherwise be under-recovered due to regulatory
7	lag. In this proceeding, PacifiCorp expresses concern that one element of renewable resource
8	variable costs, specifically wind integration costs, are not adequately covered by the TAM
9	structure, which is based on the Company's Generation and Regulation Initiative Decision Tools
10	(GRID) model forecast of net power costs (NPC). However, Staff's testimony establishes that
11	this concern is not well founded. The section of Staff's Prehearing Brief beginning on Line 14 of
12	Page 29 and ending on Line 2 of Page 31 summarizes the support for Staff's conclusion.
13	In summary, Standard & Poor's concern is not relevant to PacifiCorp's renewable
14	resource cost recovery in Oregon. The RAC eliminates regulatory lag, particularly for large
15	capital expenditures, and the Company is collecting its variable costs in a timely manner, either
16	through the RAC or through its annual TAM filings.
17	C. Increased renewable penetration does not increase PacifiCorp's risk.
18	At the hearing, PacifiCorp expressed the view that increased renewable penetration has
19	increased the risk faced by the Company. This view is incorrect. Most of the new renewable
20	resources have been wind turbines. A wind turbine's costs are predominantly capital, i.e. the
21	cost of constructing the turbine. Wind integration and operation and maintenance costs are
22	relatively small. A final potential factor is variation between forecast and actual wind resource
23	output.
24	The large capital costs have significantly increased PacifiCorp's rate base. This
25	translates into higher authorized earnings and more ability to absorb differences between forecast
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1 and actual costs. Operation and maintenance costs are minor and are included in base rates, 2 rather than collected through the TAM structure. Staff has demonstrated that the TAM/GRID 3 structure ensures recovery of wind integration costs, which are less than two percent of NPC and 4 less than 0.5 percent of the Company's revenue requirement, in a manner that is as accurate as is 5 practicable. 6 Whereas the large capital costs of wind turbines have significantly increased PacifiCorp's 7 rate base and hence ability to absorb cost differences, these same resources have added very little 8 to expected NPC and almost nothing to variations between forecast and actual NPC. Therefore, 9 increased renewable resource penetration has decreased PacifiCorp's risk. Stated differently, 10 potential forecast versus actual NPC differences have increased very little, but the ability to 11 absorb these differences has increased substantially, thereby reducing the risk of substantial 12 percentage earnings fluctuations. 13 Wind resources do potentially introduce another source of risk, variances between 14 forecast and actual output of wind resources over one-year test periods. However, the data 15 provided on Page 2 of Exhibit PAC/1801 indicates that this potential risk generally did not 16 materialize over the 2007-2011 period. For this five-year period, the difference between 17 expected and actual wind resource output was only three percent. In only one of the individual years is there a large variance. Specifically, in 2009, actual wind output was 15 percent below 18 19 forecast. Normalized to 2013 wind penetration levels, the financial effect of this short-fall was less than \$6 million.<sup>4</sup> This figure is small relative to either i) the overall differences between 20 21 /// 2.2. /// 23 24 <sup>4</sup> On a system basis, the wind resource output shortfall was 728,229 MWh, or approximately 182,000 MWh on an Oregon-allocated basis. Average market sales prices assumed in the 25 Company's 2013 TAM filing are approximately \$33/MWh. Therefore, the value of the Oregonallocated wind output variation in question is approximately \$6.4 million. [182,000 x \$33 =

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\$6,006,0001

forecast and actual NPC over the 2007-2011 period (summarized in Table 4 on Page 3 of Exhibit 1 PAC/2200), or ii) current Oregon authorized pre-tax earnings of approximately \$290 million.<sup>5</sup> 2 3 D. Sharing Does Provide an Incentive for the Company to Minimize NPC. 4 PacifiCorp maintains that only the threat of a prudence review will incent the Company 5 to minimize its NPC, even in circumstances in which the results will be born primarily by customers. Staff's position is that its 90/10 (90 percent to customers, 10 percent to the 6 7 Company) sharing structure would, in fact, incent the Company to minimize costs in all 8 circumstances. Staff's Prehearing Brief summarizes this argument beginning on Line 8 of Page 9 35 and ending on Line 2 of Page 36. 10 For the hearing, PacifiCorp made available Exhibit PGE/1700, Rebuttal Testimony of Maria Pope in Docket UE 215. In that testimony, Ms. Pope states that the "...deadband and 11 90/10 sharing act as incentives for PGE to control costs and seek to increase efficiency." (UE 12 13 215 Exhibit PGE/1700, at Pope/7, at Lines 20-21) If a 90/10 sharing structure would act as an 14 incentive for PGE, it would do the same for PacifiCorp. 15 /// 16 111 17 /// /// 18 19 /// 20 /// 21 /// 22 <sup>5</sup> See Footnote 10 on Page 33 of Staff's Prehearing Brief. Note also that 2013 authorized ROE 23 will be 9.80 percent, rather than 10.00 percent, but the 2013 rate base is larger than the 2011 rate base assumed in the Company's calculation of \$43.2 million as representing 150 basis points of 24 pre-tax ROE. In this statement, "deadband" refers to a \$10 million/\$10 million symmetrical dead band 25 proposed by PGE in Docket UE 215. Parties to UE 215 subsequently entered into a stipulation which included a \$15 million/\$30 million dead band. 26

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## 1 4. CONCLUSION 2 For the reasons stated, the Commission should issue an Order consistent with Staff's 3 recommendations for all contested issues. day of November 2012. 4 5 Respectfully submitted, 6 ELLEN F. ROSENBLUM Attorney General 8 9 Michael T. Weirich, #82425 Jason W. Jones, #00059 10 Assistant Attorneys General Of Attorneys for Staff of the Public Utility 11 Commission of Oregon 12 13 14 15 16 17 18 19 20 21 22 23 24 25

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## CERTIFICATE OF SERVICE 1 2 I certify that on November 7, 2012, I served the foregoing Staff Post-Hearing Brief upon 3 all parties of record in this proceeding by delivering a copy by electronic mail only as all parties waive paper service. 4 5 W WILLIAM GANONG (C) **ENERGY STRATEGIES LLC** 514 WALNUT AVENUE KEVIN HIGGINS (C) KLAMATH FALLS OR 97601 215 STATE ST - STE 200 wganong@aol.com **SALT LAKE CITY UT 84111-2322** khiggins@energystrat.com 8 **BOEHM KURTZ & LOWRY** KURT J BOEHM (C) **ESLER STEPHENS & BUCKLEY** 9 JOHN W STEPHENS (C) **ATTORNEY** 36 E SEVENTH ST - STE 1510 888 SW FIFTH AVE STE 700 CINCINNATI OH 45202 PORTLAND OR 97204-2021 10 kboehm@bkllawfirm.com stephens@eslerstephens.com; mec@eslerstephens.com 11 **BOEHM, KURTZ & LOWRY** 12 JODY KYLER (C) **KLAMATH WATER AND POWER AGENCY ATTORNEY** HOLLIE CANNON (C) 36 E SEVENTH ST STE 1510 735 COMMERCIAL ST STE 4000 13 CINCINNATI OH 45202 KLAMATH FALLS OR 97601 jkyler@bkllawfirm.com hollie.cannon@kwapa.org 14 W W 15 CITIZENS' UTILITY BOARD OF OREGON **NW ENERGY COALITION** OPUC DOCKETS WENDY GERLITZ (C) 610 SW BROADWAY, STE 400 1205 SE FLAVEL 16 PORTLAND OR 97205 PORTLAND OR 97202 dockets@oregoncub.org wendy@nwenergy.org 17 ROBERT JENKS (C) 18 610 SW BROADWAY, STE 400 **PACIFIC POWER** PORTLAND OR 97205 R. BRYCE DALLEY (C) bob@oregoncub.org 825 NE MULTNOMAH ST., STE 2000 19 PORTLAND OR 97232 G. CATRIONA MCCRACKEN (C) bryce.dalley@pacificorp.com 20 610 SW BROADWAY, STE 400 PORTLAND OR 97205 SARAH WALLACE (C) 21 825 NE MULTNOMAH ST STE 1800 catriona@oregoncub.org PORTLAND OR 97232 sarah.wallace@pacificorp.com 22 **DAVISON VAN CLEVE** IRION A SANGER (C) 23 PACIFICORP, DBA PACIFIC POWER 333 SW TAYLOR - STE 400 PORTLAND OR 97204 **OREGON DOCKETS** 24 ias@dvclaw.com 825 NE MULTNOMAH ST, STE 2000 PORTLAND OR 97232 w oregondockets@pacificorp.com 25 **DAVISON VAN CLEVE PC** MELINDA J DAVISON (C) 26 333 SW TAYLOR - STE 400 PORTLAND OR 97204

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