

September 13, 2007

Attention: Filing Center
Public Utility Commission of Oregon
550 Capitol Street NE, #215
PO Box 2148
Salem, OR 97308-2148
Puc.filingcenter@state.or.us

Re: In the Matter of the PUBLIC UTILITY COMMISSION OF OREGON Staff's Investigation

into the Treatment of CO<sub>2</sub> Risk in the Integrated Resource Process (IRP) Process

PUC Docket No. UM1302

DOJ File No. 330-030-GN0300-07

Enclosed are an original and five copies of the Oregon Department of Energy's Reply Comments in the above-captioned matter for filing with the PUC today.

Sincerely,

Janet L. Prewitt

Assistant Attorney General Natural Resources Section

Enclosures

c: UM 1302 Service List

JLP:jrs/GENV3063

, 1	BEFORE THE PUB	LIC UTILITY COMMISSION		
2	O	F OREGON		
3	L. Ala Maura Sala	UM 1302	2	
4	In the Matter of the PUBLIC UTILITY COMMISSION OF	OREGON DEPARTMENT OF ENERGY'S REPLY COMMENTS	,	
5	OREGON Staff's Investigation into the Treatment of CO <sub>2</sub> Risk in the Integrated		•	
6	Resource Process (IRP) Process	)		
7		(07.07)		
8		(ODOE) respectfully requests the Commission		
9	include the following described changes for	r the Staff's draft of "Guideline 8: Environment	tal	
10	Costs."			
11	Explanation of Oregon Department of En	nergy's Suggested Changes		
12	ODOE suggested edits to the Orego	n Public Utility Commission (OPUC) staff dra	ıft	
13	issued on September 6, 2007 are set out bel	ow.		
14	The suggested edit regarding end-ef	fects and lifetimes, below, should be self-evidence	ent, but	
15	ODOE does not agree with PacifiCorp assu	mptions of a 40-year lifetime for conventional	coal	
16	plants and a 20-year lifetime for wind plant	s. This issue is unresolved.		
17	Oregon investor owned utilities own	n both types of facilities. ODOE again urges the	ne	
18	Commission to focus on this issue and requ	ire PacifCorp to make facility lifetime assump	tions	
19	that are empirically consistent.			
20	In UM 1208, ODOE included the fo	ollowing discussion of facility lifetime assumption	tions:	
21	"Given the risks that high CO2 cost	adders will be implemented before 2032, the 2	Oth year	
22	while 40 years seems a more likely l	lifetime for baseload coal plants might be 20 y lifetime for the wind power plants. This is the r	reverse	
<ul><li>23</li><li>24</li></ul>	application for acknowledgement of	ommission's approval order should indicate the final short list of proposals from the RFP fiCorp's assumptions for wind and coal lifetim source acquisitions through 2013."	should	
25	ODOE Reply Comments in UM 1208 at pa	ge 5 <sup>1</sup>		
26	http://edocs.puc.state.or.us/efdocs/HAC/u	m1208hac103212.pdf		
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1	Although the Commission declined to address the wind/coal lifetime issue in UM 1208, it
2	did note at page 9 of Order 07-018 that:
time. As we stated above, PacifiCorp has not satisfied the threshold require alignment with its acknowledged IRP. Further, in Order No. 07-002 (Dock we opened a proceeding to review treatment of CO2 risk in IRPs. Issues release expected costs, risks and uncertainties of coal resources, particularly if the	"Accordingly, we [the Commission] decline to resolve issues related to CO2 risk at this time. As we stated above, PacifiCorp has not satisfied the threshold requirement of RFP
	alignment with its acknowledged IRP. Further, in Order No. 07-002 (Docket UM 1056), we opened a proceeding to review treatment of CO2 risk in IRPs. <b>Issues related to the</b>
	designed to capture and sequester CO2 emissions, will be addressed in these forums."
7	[Emphasis added].
8	ODOE believes this docket (referenced above in Order 07-018) is the appropriate forum for the
9	Commission to address the issue. The Commission should emphasize the relationship between
10	lifetime and CO2 assumptions.
11	Recent wind acquisitions by PGE will be rate-based resources with a lease option up to
12	50 years. This approach may become the primary mode of wind acquisition by Oregon investor
13	owned utilities. Thus differential treatment of wind and coal resources should be based on
14	differences in technologies. No evidence has been presented in recent IRP's that demonstrates
15	that the physical life of a wind facility is less than a coal plant. However, if carbon dioxide
16	regulations are imposed the economic lifetime of the coal plant may become significantly shorter
17	than the economic lifetime of a wind plant. If so, wind facilities will have similar or longer
18	lifetimes than conventional coal plants. After 25 years of commercial experience, wind
19	technology is as reliable as conventional coal technology. Over the next 40 years, utilities will
20	face increasing stringent CO <sub>2</sub> regulations that will be make it difficult or impossible to operate
21	conventional coal plants as base-load resources.
22	The suggested edits to the OPUC staff draft below are not intended to resolve this issue.
23	The hope is the Commission will indicate its intention to focus on this issue in the
24	acknowledgement of specific integrated resource plans. The two other small edits are not
25	substantive.
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## "Guideline 8: Environmental Costs" [ODOE Edits to Staff draft of September 6]<sup>2</sup>

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2	a.	SCENARIOS: The utility should construct a base-case scenario to reflect what it considers to
3		be the most likely regulatory compliance future for carbon dioxide (CO <sub>2</sub> ), nitrogen oxides,
4		sulfur oxides, and mercury emissions. The utility also should develop a broad array of
5		compliance scenarios ranging from the present CO <sub>2</sub> regulatory cost to the upper reaches of
6		credible proposals by governing bodies (i.e., at least \$100 per ton $\underline{\text{of CO}_2}$ , as levelized in
7		2005 dollars). Each scenario should maintain logical consistency, to the extent practicable,
8		between CO <sub>2</sub> regulatory costs and other key inputs including, but not limited to, expected
9		interactive effects with fuel and electricity prices. Each scenario should include a time profile
10		of CO <sub>2</sub> compliance costs. The utility should identify whether it envisions those costs to be in
11		the form of taxes, a ban on certain types of resources, or CO <sub>2</sub> caps (with or without flexibility
12		mechanisms such as trading or a safety valve).
13	b.	PREFERRED PORTFOLIO: The utility should identify, among reasonable alternatives, the
14		portfolio that it prefers in recognition of both its base-case scenario, the broad range of
15		potential regulatory compliance scenarios described above, other analyses conducted during
16		the course of the integrated resource planning cycle, and management discretion. The utility
17		should estimate the twenty-year (as a minimum) present value of revenue requirement
18		(PVRR) for each of the studied portfolios for several illustrative regulatory compliance
19		futures within the range of scenarios. End-effect considerations should be incorporated in the
20		analyses to allow for comparisons of portfolios containing resources with different economic
21		lives. The utility should make assumptions regarding the lifetimes of different types of
22		resources that are consistent and reasonable among resources and with the CO2
23		scenarios being considered, especially where the lifetimes extend beyond the time
24		horizon for the PVRR. In addition, and if material, sensitivity analyses on a range of

<sup>&</sup>lt;sup>2</sup> New material is underlined in boldface type. Deleted material is bracketed.

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1		reasonably possible regulatory futures for nitrogen oxides, sulfur oxides, and mercury should
2		be included to further substantiate the preferred portfolio selection.
3	c.	TRIGGER POINT ANALYSIS AND ALTERNATIVE PORTFOLIOS: The utility should
4		identify at least one set of CO <sub>2</sub> compliance costs within the range of alternative regulatory
5		scenarios considered that would lead to, or "trigger," a set of resources that is substantially
6		different from the preferred portfolio. The utility should fully develop an alternative portfolio
7		optimized for each of these "trigger point scenarios" and compare the portfolio's expected
8		cost and risk performance to that of the initially preferred portfolio under the base-case
9		conditions and under each of the CO <sub>2</sub> compliance scenarios. For each of the trigger points
10		identified through the analyses, the utility should include an assessment that a CO <sub>2</sub> regulatory
11		future will be mandated that is equally or more stringent.
12	d.	PORTFOLIO CO <sub>2</sub> RISK ADAPTABILITY: The utility should assess the cost and risks of
13		adapting the preferred portfolio to a scenario (or scenarios) where the utility must change
14		course unexpectedly due to a major change in the CO <sub>2</sub> compliance requirements. The utility
15		should describe the timing and magnitude of new CO <sub>2</sub> requirements that would elicit the
16		indicated portfolio modifications. The utility should compare the cost and risks of the
17		adapted preferred portfolio with those of an optimized alternative portfolio designed to be
18		more adaptable in the event of such a change in the CO <sub>2</sub> compliance requirements.
19		Comparative factors such as lead times for site acquisition, engineering, and construction
20		should be incorporated in the characterization of the alternative portfolio. The utility should
21		provide its assessment of such a CO <sub>2</sub> regulatory shift taking place.
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1	e.	OREGON COMPLIANCE PORTFOLIO: If none of the alternative portfolios is consistent
2		with Oregon energy policies (including state goals for reducing greenhouse gas emissions
3		[reductions]), the utility should construct an optimized portfolio that achieves that
4		consistency, present the cost and risk parameters, and compare them to those of the preferred
5		and alternative portfolios."
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7		DATED this 13th day of September 2007.
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9		Respectfully submitted,
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11		A Constant
12		Smit Lewitt
13		Vanet L. Prewitt, #85307 Assistant Attorney General
14		Of Attorneys for Oregon Department of Energy
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## CERTIFICATE OF SERVICE

I hereby certify that on the 13<sup>th</sup> day of September, 2007, I served the foregoing OREGON DEPARTMENT OF ENERGY'S REPLY COMMENTS, electronically upon, the persons named on the attached service list. All parties have waived paper service.

DATED: This 13<sup>th</sup> day of September, 2007.

Anet L. Prewitt, #85307 Assistant Attorney General