HARDY MYERS
Attorney General

PETER D. SHEPHERD
Deputy Attorney General

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

July 13, 2005

VIA EMAIL AND U.S. MAIL

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

Re: *In the Matter of PacifiCorp 2004 Integrated Resource Plan*
PUC Docket No. LC 39
DOJ File No. 330-050-GN0082-05

Filing Center:

Please find enclosed one original and five copies of OREGON DEPARTMENT OF ENERGY'S REPLY COMMENTS in the above-captioned matter for filing with the Public Utility Commission today.

Sincerely,

/s/ Janet L. Prewitt

Janet L. Prewitt
Assistant Attorney General
Natural Resources Section

Enclosures
c: Phil Carver, ODOE
LC 39 Service List

JLP:jrs/GENN2086

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

IN THE MATTER OF PACIFICORP 2004 INTEGRATED RESOURCE PLAN	LC 39 OREGON DEPARTMENT OF ENERGY'S REPY COMMENTS

These reply comments on PacifiCorp's integrated resource plan (IRP) are intended to clarify the record that has evolved since the Oregon Department of Energy (ODOE) drafted its comments in mid-May. ODOE supports the OPUC Staff's Draft Proposed Order (DPR) and recommends the Commission adopt the DPR as a final order in this case, with three additions.

1. The Commission should add language to the draft order to require that PacifiCorp's next IRP include demand response programs as peaking resources when it assesses capacity margins.
2. The final order should require that the next IRP develop or adopt a method to assess the risk-reduction value of short lead-time and smaller-sized resources.
3. The final order should clarify the financial risks PacifiCorp might face if it pursues a coal plant in 2011.

ODOE supports OPUC Staff's proposed modifications to PacifiCorp's Action Plan. This includes modifications 4, 7, 9 and 11, which PacifiCorp opposes (Staff Comments at pages 13-14). Finally, ODOE supports Staff's recommendation that "the construction of a second large thermal resource in or delivered to Utah by the summer of 2011 not be acknowledged, including acquisition of a new coal unit." (Staff Comments at page 12).

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Summary of ODOE's Reply Comments:

- Recent trading data in Europe indicates the long-run costs of offsets may be well above $8.38 per ton of CO_2 (2010$).
- PacifiCorp's goal of 7 percent of load served (MWh) by renewable energy by 2014 is inadequate.
- While a significant improvement over its last IRP, the analysis justifying the 15 percent planning margin is flawed. It fails to analyze the least-cost peaking resource: demand response programs (Class 1, 3 and 4 DSM). The Commission's final order should require that the next IRP include demand response programs as capacity (peaking) resources when assessing capacity margins.
- PacifiCorp's IRP has not adequately evaluated and balanced the risks of overbuilding vs. underbuilding. A strategy of more renewable generation, conservation (Class 2 DSM outside of Oregon) and demand response (Class 1, 3 and 4 DSM) resources is less risky than a long lead-time 575 MW coal plant for service in CY 2011. Short lead-time and less lumpy gas-fired power plants can back up this strategy. The Commission's final order should require PacifiCorp to develop or adopt models for its next IRP that clarify the advantages of short lead time and smaller-sized resources.
- ODOE supports all of Staff's proposed modifications to the Action Plan.
- PacifiCorp's claims that new coal plants present acceptable financial risks to shareholders. PacifiCorp does not address the risks to ratepayers and does not seem to accurately characterize risks to shareholders. The Commission's final order should

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clarify the CO_2 regulatory risks for shareholders if PacifiCorp pursues a coal plant in 2011.

Discussion:

Recent trading data in Europe indicates the long-run costs of offsets may be well above $8.38 per ton of CO_2 (2010$).

Recent data on the cost of offsets in European trading can be found at: http://www.pointcarbon.com/article.php?articleID=7342&categoryID=390.

On July 8, 2005, European Union (2005) Allowances were trading for €29.11 (€ per metric ton of CO_2). With a Euro worth $1.19 and metric tons at 2,204.6 pounds, this is $31.43 per short ton of CO_2 (2005$). While trading has been volatile over the past year, these are the first real results of the European market under the Kyoto Protocol. While short-run constraints may be responsible for the dramatic rise in prices from last year, for the long run the Kyoto Protocol limits on emissions for industrialized countries are far less than needed to stabilize world climate.

This indicates PacifiCorp's long-run expectation of $8.38 per ton of CO_2 (2010$) implies a belief that neither the U.S nor the states will impose serious CO_2 emission limits during the upcoming decades. Although that scenario is possible, it is hardly the most likely.

The goal of 7 percent of load served by renewable energy by 2014 is inadequate.

The attached spreadsheet contains the Lawrence Berkeley Lab's data referred to in PacifiCorp's comments in response to ODOE's concern that serving 7 percent of load with renewable resources is not particularly aggressive. See attached spreadsheet 8-IRPs-RenRes-2015.xls. PacifiCorp states that

> "According to a draft report from the Lawrence Berkeley National Laboratory, PacifiCorp's modeled amount of renewable generation [1,400 MW] is much higher than all other utilities in the region. The resulting portion of renewables in

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> our final portfolio by 2014 is roughly equivalent, on an energy basis, to the total *combined* renewable generation in the final portfolios of Puget Sound Energy, Idaho Power, Portland General Electric and Avista *combined*."

(Emphasis in original, PacifiCorp's 6/6/05 response to comments at page 11.)

Comparing PAC's 1,400 MW of renewables by 2014 with the sum of renewable resources planned to date by PGE, PSE, Idaho Power and Avista is not a fair comparison. Two of the IRPs (Idaho Power's and Avista's) do not include specific plans after 2010. Further, PGE's plan does not contain any additional renewable resources after 2007. These utilities do not plan to stop acquiring renewable resources. This is just how far ahead they have planned.

It is true that PSE's goal is only "supplying at least five percent of our customers' total electricity needs with renewable resources by 2013." (See PSE's Dec. 1, 2004 press release http://www.pse.com/news/2004/pr20041201a.html.) But that should be considered in the context of PSE having already signed letters of intent for nearly 400 MW of wind. PSE is on a path to exceed its goal. Also, PSE is chairing the Northwest Transmission Assessment Subcommittee (NTAC), of the NW Power Pool on integrating 5,000 MW of wind in Oregon and Washington by 2015. This would serve the energy needs of about 10 percent of Oregon's and Washington's loads. Concerns about expanding transmission in Oregon and Washington due to Bonneville Power Administration's borrowing limits have contributed to PSE's cautious goal. In contrast, neither the transmission, nor generation divisions of PacifiCorp have been active participants in the NTAC wind discussions and analyses. Both PacifiCorp divisions should be more active in public processes to integrate generation from renewable resources. This is additional evidence that PacifiCorp is not aggressively pursuing renewable resource.

There are challenges for utilities to serve more than 7 percent of loads, primarily regarding transmission and integration. One of the largest challenges is the difficulty of

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expanding the transmission system for independently developed renewable power projects. Only through proactive public processes will the Northwest overcome this "chicken and egg" problem. Both divisions of PacifiCorp should become more active in solving this problem. Even with these challenges, it is reasonable to plan to serve more than 7 percent of PacifiCorp's load with renewable by 2014, based on the following:

- PacifiCorp now projects 40 percent higher gas costs that it did in its IRP (PAC May 18, 2005, slides 65-68 at http://www.pacificorp.com/File/File52811.pdf);
- CO_2 regulatory costs could be considerably higher than PacifiCorp modeled;
- the likely extension of the federal production tax credit; and
- large amounts of renewable power proposals with reasonable costs in responses to requests for proposals by PacifiCorp and other utilities in the Northwest Power Pool.

PacifiCorp's IRP does not provide credible evidence that the 7 percent goal is reasonable. With more renewable development, the 575 MW coal plant planned for 2011 could be deferred and PacifiCorp's customers would have a better balance of risks and expected costs.

The "Bathtub Curve" Analysis Fails to Analyze the Least-Cost Peaking Resource: Demand Response and Education Programs (Class 1, 3, and 4 DSM)

Order No. 03-508 at page 10 states: "The Commission agrees with the parties that Pacific did not justify a 15 percent planning reserve margin or a 5 percent limit on market exposure." ODOE appreciates the significant advance in the analysis contained in Appendix N of PacifiCorp's IRP. Unfortunately, this analysis is fundamentally flawed because it ignores the use of demand response programs. Demand response is not included in PacifiCorp's estimates of the cost of peaking capacity, or in its cost of unserved energy. Benefit-cost analyses, such as PacifiCorp's "bathtub curve", must include all significant measures on either the cost or the

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benefit side of the analysis. To be valid, the bathtub curve analysis must be expanded to include an assessment of DSM resources to be consistent with the apparent intent of Order No. 03-508, which states "In addition, the Commission will require for the next IRP or Action Plan Pacific brings forward for acknowledgment, that it assess Class 1, Class 3 and Class 4 DSM resources in Oregon and include in the portfolios those DSM resources that are least cost." (at page 20).

Although it may be technically valid to include Class 1, 3, and 4 DSM programs on the benefits side by adjusting the valuation of unserved energy, ODOE finds it more appropriate to include these as supply resources. This would, in effect, lower the cost curves on Figures N.14 and N.15 (page 220 in IRP Appendix). This would tend to make larger reserve margins economic while at the same time lowering the need for other capacity resources. The alternative of having Class 1, 3, and 4 DSM reduce the cost of unserved energy is more complicated but if done correctly, it would have the same impact. The final order should require that the next IRP include all demand response resources as capacity (peaking) resources when assessing the appropriate capacity margin.

Balancing the Risks of Overbuilding vs. Underbuilding

Renewable generation, conservation (Class 2 DSM outside of Oregon) and demand response (Class 1, 3, and 4 DSM) resources have lower risks of overbuilding than coal plants because they have shorter lead times. PacifiCorp's plan for a coal plant by 2011 seems ill suited to the large economic uncertainties over the next several years.

Absent the need for major transmission upgrades, renewable generation projects can be on-line within a year of signing a power purchase agreement or turn-key construction contract. Gas generation projects can be on-line within 2 years. Combined heat and power (CHP) plants can be on line sooner. Conservation and demand response programs also have short lead times.

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These short lead-time resources stand in stark contrast to the 6-to-8 years required for a coal-fired plant. This difference in lead times allows flexibility if load growth halts or turns negative. The Northwest experienced significant problems with unneeded coal and nuclear plants in the early 1980s when loads fell. The result was billions of dollars of unnecessary costs.

Load growth uncertainty is still with us. For example, from 2000 to 2003 PacifiCorp's annual Oregon sales fell from 15.5 to 13.2 million MWh (OPUC Utility Statistics, 2000 and 2003). This is a total decline of 14.8 percent and a decline of 5.2 percent per year over the three year period.

Most economists acknowledge that the U.S. economy is entering a highly uncertain period. High oil and natural gas prices have been more persistent than were forecasted. The U.S. current-accounts and federal budget deficits are at record levels with no end in sight. The U.S. economy has been largely sustained by low mortgage rates, a housing boom and home refinancing. These are the kind of conditions that can lead to a serious economic recession.

Unlike the Northwest Power and Conservation Council's (NWPCC's) modeling methods (see: http://www.nwppc.org/energy/powerplan/plan/Appendix%20L%20(Portfolio%20Model).pdf), PacifiCorp's stochastic modeling does not capture the benefits of short lead-time resources. It does not allow generation construction decisions to adjust to unanticipated changes in load growth. This is true of Portfolio P (with generation build decisions made by the Capacity Expansion Model) as well as the hand-picked resource scenarios. The only flexibilities allowed in PacifiCorp's stochastic risk simulations (page 138 of the IRP) relate to operational decisions (plant operations and market purchases and sales).

The NWPCC models show that short lead-time resources significantly reduce the risk of overbuilding and underbuilding. These models are commercially available or are open source

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models available from the NWPCC. The Commission should acknowledge lumpy, long lead-time resources only if PacifiCorp demonstrates the risk of over- and under-building is outweighed by other cost and risk reduction benefits. The Commission's final order should require PacifiCorp to develop or adopt models for its next IRP that clarify the advantages of short lead time and smaller-sized resources.

Why Staff's Proposed Modifications To The Action Plan Are Reasonable

According to Staff's comments of June 27 "The Company doe not at this time agree to modify its Action Plan pursuant to Staff recommendations #4, 7, 9 and 11." (Staff Comments at pages 13 and 14). ODOE recommends the Commission adopt all of Staff's proposed modifications. ODOE agrees that PacifiCorp's IRP has not sufficiently analyzed class 1, 2 and 3 DSM (see Staff modifications #4 and #7). ODOE agrees that PacifiCorp has not properly assessed the value of Class 3 DSM in meeting peak needs, in its analysis of planning margins and in its stochastic analyses (see above and Staff modification #9). Finally, ODOE agrees that PacifiCorp's IRP has not adequately analyzed CHP resources and aggregated dispatchable customer standby generation (see Staff modification #11).

Financial Risks for PacifiCorp's Shareholders From Carbon Dioxide Regulations

In its June 6 reply comments PacifiCorp states:

> "PacifiCorp agrees with the parties that large investments require long-term commitment, and that investing in a resource with a 40-year economic life does present risks relating to changing market paradigms and policy developments. However, we expect that *risks to cost recovery would be minimal* given regulatory mechanisms —and the Multi-State Process— that are in place. PacifiCorp's past experience is that once the costs of a new generation unit are shown to be prudent, *there are not serious future impediments to recovery of the costs in rates."*

(Page 6, emphasis added.)

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It is unclear how Oregon rules or laws or the Multi-State Process protect PacifiCorp shareholders from disallowance of costs associated with future CO_2 regulations.

The Commission's order in LC 39 cannot bind future Commissions. All of the evidence presented in LC 39 can be used as evidence in future rate cases, not just the Commission order in this case. All parties, other than PacifiCorp, have filed comments that dismiss the company's long-run forecast of regulatory costs of $8 per ton of CO_2 and recommend the Commission not acknowledge the 2011 coal plant.

If CO_2 costs rise above $8.38 per ton (2010$) during the 40 years of amortizing the coal plant's costs or if load growth falters between now and 2011, PacifiCorp's faces financial risks if it starts construction of the plant. The financial risks are significantly higher if the Commission does not acknowledge the coal plant, but the risks are not zero even if it does.

Whether or not the Commission chooses to acknowledge a coal plant for 2011, it should clarify the risks faced by PacifiCorp. ODOE supports the Final Order language regarding the risks of rate-basing a coal plant as proposed by CUB in its reply comments filed on this date.

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It is ODOE's understanding that CUB will file the following language for addition to the final order:

> "While the Commission has specifically not acknowledged a new coal unit in this IRP, it does not mean that PacifiCorp may not choose to invest in a new coal unit and seek cost recovery in a future rate case. If that situation were to arise, the Commission has at its disposal several tools to allow cost recovery in a way that is consistent with this order and which appropriately matches the allocation of costs and risks between shareholders and ratepayers. By way of example, such tools could include a finding that the coal unit is imprudent, the imputation of a zero or low CO2-emitting resource, or allowing cost recovery of CO2 regulation up to but no more than $8/ton of CO2. As the IRP is not a rate-making process, we decline at this stage to identify the Commission's future response to a future rate case application."

ODOE supports this addition.

RESPECTFULLY SUBMITTED this _13_th day of July, 2005.

Respectfully submitted,

HARDY MYERS
Attorney General

/s/ Janet L. Prewitt
_____
Janet L. Prewitt, #85307
Assistant Attorney General
Of Attorneys for the Oregon
Department of Energy

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
(503) 947-4500

CERTIFICATE OF SERVICE

I hereby certify that on the 13th of July, 2005, I served the forgoing OREGON DEPARTMENT OF ENERGY'S REPLY COMMENTS upon, the persons named on the attached service list, by email and by mailing a full, true and correct copy thereof addressed to the persons at the addresses on the service list.

DATED: July 13, 2005

/s/ Janet L. Prewitt
_____
Janet L. Prewitt, #85307
Assistant Attorney General

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
(503) 947-4500

LC 39 SERVICE LIST

LISA BROWN WATERWATCH OF OREGON 213 SW ASH ST STE 208 PORTLAND OR 97204 lisa@waterwatch.org	LOWREY R BROWN **-- CONFIDENTIAL** CITIZENS' UTILITY BOARD OF OREGON 610 SW BROADWAY, SUITE 308 PORTLAND OR 97205 lowrey@oregoncub.org
KEN CANON INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES 333 SW TAYLOR STE 400 PORTLAND OR 97204 kcanon@icnu.org	PHIL CARVER OREGON DEPARTMENT OF ENERGY 625 MARION ST NE STE 1 SALEM OR 97301-3742 philip.h.carver@state.or.us
JASON EISDORFER **-- CONFIDENTIAL** CITIZENS' UTILITY BOARD OF OREGON 610 SW BROADWAY STE 308 PORTLAND OR 97205 jason@oregoncub.org	J RICHARD GEORGE PORTLAND GENERAL ELECTRIC COMPANY 121 SW SALMON ST PORTLAND OR 97204 richard.george@pgn.com
ANN ENGLISH GRAVATT RENEWABLE NORTHWEST PROJECT 917 SW OAK - STE 303 PORTLAND OR 97205 ann@rnp.org	DAVID HATTON DEPARTMENT OF JUSTICE REGULATED UTILITY & BUSINESS SECTION 1162 COURT ST NE SALEM OR 97301-4096 david.hatton@state.or.us
JIM MCCARTHY OREGON NATURAL RESOURCES COUNCIL PO BOX 151 ASHLAND OR 97520 jm@onrc.org	PGE- OPUC FILINGS RATES & REGULATORY AFFAIRS PORTLAND GENERAL ELECTRIC COMPANY 121 SW SALMON STREET, 1WTC0702 PORTLAND OR 97204 pge.opuc.filings@pgn.com
IRION SANGER DAVISON VAN CLEVE 333 SW TAYLOR, STE 400 PORTLAND OR 97204 ias@dvclaw.com	LISA C SCHWARTZ PUBLIC UTILITY COMMISSION OF OREGON PO BOX 2148 SALEM OR 97308-2148 lisa.c.schwartz@state.or.us
REBECCA SHERMAN HYDROPOWER REFORM COALITION 320 SW STARK STREET, SUITE 429 PORTLAND OR 97204 northwest@hydroreform.org	JOHN W STEPHENS ESLER STEPHENS & BUCKLEY 888 SW FIFTH AVE STE 700 PORTLAND OR 97204-2021 stephens@eslerstephens.com
STEVEN WEISS NORTHWEST ENERGY COALITION 4422 OREGON TRAIL CT NE SALEM OR 97305 steve@nwenergy.org	

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1162 Court Street NE
Salem, OR 97301-4096
(503) 947-4500

Cumulative Non-RPS (MW)	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Wind: PacifiCorp	0	0	100	300	500	700	900	1100	1300	1420	1420
Wind: Idaho Power	0	0	100	200	200	200	350	350	350	350	350
Wind: Avista	0	0	0	0	18	18	75	75	75	75	75
Wind: PGE	0	0	0	195	195	195	195	195	195	195	195
Wind: PSE	0	0	370	470	570	670	670	670	670	670	670
Wind: NorthWestern	0	150	150	150	150	150	150	150	150	150	150
Wind: SDG&E	0	0	0	0	0	0	0	6	11	17	22
Wind: PSCo	0	129	500	500	500	500	500	500	500	500	500
Total Wind (MW)	**0**	**279**	**1220**	**1815**	**2133**	**2433**	**2840**	**3046**	**3251**	**3377**	**3382**
Geothermal: Idaho Power	0	0	0	0	100	100	100	100	100	100	100
Biomass: PSE	0	0	0	0	0	0	0	25	50	75	75
Other Resources: SDG&E	0	0	0	0	0	0	0	23	46	70	93
Total Other (MW)	**0**	**0**	**0**	**0**	**100**	**100**	**100**	**148**	**196**	**245**	**268**
Total All (MW)	**0**	**279**	**1220**	**1815**	**2233**	**2533**	**2940**	**3194**	**3448**	**3621**	**3650**