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August 25, 2011

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 PACIFICORP dba PACIFIC POWER 2011 Integrated Resource Plan PUC Docket No.: LC 52 DOJ File No.: 330-030-GN0109-11

Enclosed are an original and five copies of OREGON DEPARTMENT OF ENERGY'S OPENING COMMENTS in the above-captioned matter for filing with the PUC for today.

Sincerely,

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Janet L. Prewitt Senior Assistant Attorney General Natural Resources Section

Enclosure JLP:jrs/#2985146 c: LC 52 Service list

#### BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

#### LC 52

In the Matter of

# PACIFICORP dba PACIFIC POWER 2011 Integrated Resource Plan

OREGON DEPARTMENT OF ENERGY'S OPENING COMMENTS

Oregon Department of Energy ("ODOE") appreciates the opportunity to provide Opening Comments in the 2011 PacifiCorp ("PacifiCorp") Integrated Resource Plan ("IRP") in accordance with the Oregon Public Utility Commission ("OPUC") Order No. 07-002 and amended Order No. 07-047. While ODOE comments may be broad at this stage of the docket, ODOE looks forward to further dialogue through the next steps of the docket prior to making explicit recommendations about "acknowledgement" of any or all aspects of PacifiCorp's IRP.

ODOE at the outset appreciates the effort taken by the Company to improve their IRP resource modeling efforts by specifically introducing the System Optimizer tool as part of the resource modeling and portfolio analysis for implementing state-specific emission standard into their analyses.

## Summarized below are specific comments to the IRP:

## 1. Renewable Resource Fuel Diversity and Renewable Portfolio Standard ("RPS")

There are many paths to achieve compliance with RPS. Physical compliance is one path, and if PacifiCorp follows that path, it should acquire geothermal resources. Another path is purchasing "unbundled" Renewable Energy Certificates (RECs) from other resources. The Company IRP does not indicate that PacifiCorp has modeled or considered this alternative RPS compliance strategy.

## A. Increased Acquisition of Geothermal Power

PacifiCorp presently proposes to add significant wind resources by 2029 (2100 MW) in order to meet their RPS compliance obligation.<sup>1</sup> Utility-scale wind has become by far the most

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<sup>&</sup>lt;sup>1</sup> Page 205 – Chapter 8, Modeling Results, PacifiCorp 2011 IRP

cost-effective investment in renewable power, and it dominates PacifiCorp's renewable power portfolio. Just as hydropower's domination of our regional fuel mix has created a physical resource dependency in the system, the explosion of wind power has resulted in a similar dependency in its renewable power portfolio.<sup>2</sup> To clarify, ODOE is very supportive of past wind development, but also recognizes that a utility must balance its fuel resource mix to ensure that dependencies do not incur unwieldy integration, transmission, and grid management costs.

ODOE encourages the Commission to require PacifiCorp to evaluate additional non-wind renewable resources because currently PacifiCorp has limited biomass generation, landfill gas, and geothermal in its renewable power portfolio. The state of Oregon has expressed the importance of fuel diversity by demanding solar development, under both volumetric incentive rate pilots and the solar capacity standard.<sup>3</sup> The Company responsibility under the solar capacity standard is 8.7 MW by 2020, which is not significant in view of PacifiCorp's total load demand and reserve margin. All of these power resources deserve increased attention.

Local or more proximate renewable resources such as Great Basin geothermal are an important alternative to large scale wind construction. Geothermal resource generation aligns with many of the Company's resource acquisition priorities: efficiency in resource generation, predictability, and base load service.<sup>4</sup> Jurisdictions across PacifiCorp's service territory want to see more geothermal development in the preferred resource portfolio. In addition, the IRP modeling repeatedly selected geothermal as a least-cost, least risk alternative. PacifiCorp's exclusion of geothermal from the Action Plan raises three concerns.

First, PacifiCorp has stated that it wants to acquire geothermal – but it will not until *regulators* confront the financial risk of geothermal drilling without finding a viable resource,

<sup>2</sup> "Implementing Environmental Redispatch Protocol and the Negative Pricing Policy denies PacifiCorp retail customers the rightful benefit of the value of production tax credits ("PTCs") and renewable energy credits ("RECs") they would otherwise have received, as well *as puts at risk PacifiCorp's and other Northwest renewable resource owners' ability to comply with the law in meeting renewal [sic] portfolio standards.*" Comments of PacifiCorp on BPA's draft ROD on Environmental Redispatch and Negative Pricing Policy. [http://www.bpa.gov/applications/publiccomments/CommentList.aspx?ID=121 (Comment #ERP110027)]

<sup>&</sup>lt;sup>3</sup> 2009 Or Laws Ch 748 (HB 3039) and 2010 Or Laws Ch. 78 (HB 3690).

<sup>&</sup>lt;sup>4</sup> IRP Chapter 5, p. 107. "...beginning 2014, base load and/or intermediate load resource additions will be necessary to cover the widening capacity deficit."

termed "dry-hole."<sup>5</sup> As a result, PacifiCorp excluded geothermal from its preferred portfolio, even though geothermal was consistently selected in the modeling results. It is not clear to ODOE that regulators must independently take up the issue. Rather, ODOE recommends that PacifiCorp engage stakeholders to find solutions to risk barriers.

Second, in the Black and Veatch Geothermal Resource Assessment Study<sup>6</sup>, PacifiCorp reviewed the opportunity to build its own facilities. Except one, all of the examined potential sites produce relatively low temperatures that cannot utilize high-temperature "flash" generation – a less costly system than the classic binary generator system. However, the study also does not fully address whether it is cost-effective to acquire geothermal resources. PacifiCorp presupposed that it would develop a new geothermal facility, rather than purchase from commercial developer(s). ODOE views purchase of geothermal from commercial developers to be a more cost-effective transaction for ratepayers to fund.

ODOE agrees that dry-hole risk is real and can materially affect development costs. However the geothermal industry is changing, with finer-tuned testing equipment, an online national geothermal database,<sup>7</sup> and improving technology in low temperature applications. ODOE also believes that purchasing geothermal power through power purchase agreements with other developers could relieve some of the risks.

Finally, ODOE also recommends that the Commission require PacifiCorp to solicit bids in a geothermal-only Request for Proposals ("RFP"). PacifiCorp would not be required to acquire resources from this RFP, but it must solicit bids under a reasonable framework with engagement of intervening parties to clarify the "commercial criteria" under consideration. If the RFP is issued within six months of an Acknowledgment Order, results could be reported to the Commission in the following IRP Update.

<sup>&</sup>lt;sup>5</sup> IRP, Chapter 5, p. 7.

<sup>&</sup>lt;sup>6</sup>http://www.pacificorp.com/content/dam/pacificorp/doc/Energy\_Sources/Integrated\_Resource\_Plan/2011IRP/Pa cifiCorp\_GeothermalStudy2010\_08-10-2010.pdf

<sup>&</sup>lt;sup>7</sup> <u>http://www.geothermaldata.org/</u>

## B. The IRP is an Appropriate Place to Discuss Long-Term REC Management

In Docket UP 266, parties discussed whether it was appropriate for PacifiCorp to sell Renewable Energy Credits ("RECs") and earn benefits for its customers presently,<sup>8</sup> or hold on to RECs to protect customers from future purchases, regulatory uncertainty, or acquisitions. PacifiCorp submitted its preference not to sell RECs and to bank its own RECs indefinitely in order to achieve RPS compliance.<sup>9</sup> In the same docket, several parties, including ODOE, advised that the Integrated Resource Plan may be the most appropriate place to evaluate the prudency of selling RECs.<sup>10</sup> ODOE does not suggest that PacifiCorp should change its position on the sale of RECs. In fact, ODOE does not take issue with PacifiCorp's statement in the IRP that uncertainty around greenhouse gas regulation makes holding RECs a prudent decision.<sup>11</sup> ODOE does believe however, that the IRP is an appropriate place to disclose plans to sell RECs, to acquire unbundled RECs, and to follow other RPS compliance strategies. These activities are clearly guidelines for major resource acquisition at PacifiCorp in the next ten years, which is the principal subject at hand in an IRP.

## C. PacifiCorp Should Evaluate Alternatives to its RPS Compliance Strategy

In this IRP, PacifiCorp modeled resource acquisition, but it did not model alternate RPS compliance options, such as acquiring unbundled RECs. There is no modeling or analysis that helps determine what REC acquisition or retention strategy would result in a least-cost least-risk plan. The Commission has already concluded that unbundled RECs should be evaluated in a utility's IRP as part of long-term planning for RPS compliance. In Portland General Electric ("PGE")'s 2009 IRP, the Commission directed PGE to evaluate alternate compliance paths in the next planning cycle. Specifically, the Commission ordered PGE to evaluate:

<sup>&</sup>lt;sup>8</sup>UP 236 Orders 07-083 and 09-396; and UP 260 Order 10-210 (from Staff comments in UP 266).

 <sup>&</sup>lt;sup>9</sup> "[T]he Company believes that its practice of banking all Oregon-allocated, RPS-eligible RECs, as embodied within its Commission-acknowledged Implementation Plan, is the most prudent strategy for achieving RPS compliance at the least-cost and least-risk to customers." Docket UP 266, Page 7, Reply of Pacific Power, November 4, 2010.
<sup>10</sup> "ODOE generally supports the CUB and RNP recommendation to the Commission, as stated in their Opening Comments, that any sale of future RPS-eligible RECs be evaluated in the broader context of an Integrated Resources Plan or RPS Implementation Plan." Docket UP 266, Page 2, Oregon Department of Energy's Reply Comments, November 4, 2010.

<sup>&</sup>lt;sup>11</sup> P. 42, IRP.

(1) The use of unbundled renewable energy credits (RECs) in its strategy to meet RPS Requirements for the entire planning period; and

(2) Alternatives to physical compliance with renewable portfolio standard (RPS) requirements in a given year, including meeting the RPS requirements in the most cost-effective/ least risk manner that takes into consideration technological innovations, expiration or extension of production tax credits, and different levels of integration costs for renewable resources. <sup>12</sup>

When adopting the RPS, the Legislature expressed a preference for delivering renewable power along with associated RECs to a utility's system by capping the use of unbundled RECs for compliance.<sup>13</sup> ODOE believes that this preference is an essential feature of the RPS and implements customers' expectation that they will receive the electricity as well as the environmental and renewable attributes of renewable power projects. PacifiCorp openly acknowledges the benefits that renewable power delivery brings to the system and thus to customers.<sup>14</sup>

The problems and benefits of acquiring unbundled RECs are not clear. They may provide an additional revenue source for local, Oregon projects. They may be available at very low prices, pushing out the need for infrastructure enhancements, reducing the demand for utility-scale projects and offering more opportunity for smaller distributed generation facilities. Acquiring disproportionate amounts of unbundled RECs may also shrink the demand for bundled RECs that are procured from renewable generators with renewable power that benefits Oregonians and renewable power goals the most. The point is that we do not know, because we have not evaluated the option. ODOE finds a similar information gap in this docket as with PGE and supports additional evaluation by PacifiCorp.

<sup>&</sup>lt;sup>12</sup> Docket LC 48, Order No. 10-457 at 24 (November 23, 2010).

<sup>&</sup>lt;sup>13</sup> ORS 469A.145.

<sup>&</sup>lt;sup>14</sup> IRP Chapter 8, page 225. "...the Company focuses on mitigation of upper-tail (worst-case) cost outcomes as the suitable criterion for evaluating risk management benefits of renewables. This criterion also recognizes risk management benefits stemming from less portfolio exposure to volatile fuel prices, with subsidiary benefits arising from reduced pollution emissions and water usage—the later [sic] becoming an increasing concern in the western U.S."

#### 2. Wind Integration

ODOE appreciates the detailed efforts undertaken by PacifiCorp to complete a Wind Integration study. ODOE also recognizes the challenges experienced by the wind-integration modeling team in regards to sites with varying levels of output data from "complete" to "partial" to "missing" sites.

ODOE recognizes the methodological approach but remains concerned about the validity of using National Renewable Energy Laboratory ("NREL") proxy data to represent output for missing sites and thereby undertake regression tests to estimate predictable "output" data for alternative sites (Page 229, Appendix I).

Similar challenges are also being currently experienced by PGE as part of their windintegration modeling and PGE has engaged an external technical review team. ODOE supports Renewable Northwest Project ("RNP") in their request, on 19<sup>th</sup> August at the OPUC Commission hearing of the PacifiCorp IRP 2011 presentation, for PacifiCorp to also engage a team of third-party technical experts to evaluate the soundness and reliability of this approach and related results.

## 3. Planning Reserve Margin

ODOE has concerns about the relatively high level of planning reserve margin (13%) and intends to further review the planning reserve margin assumptions in greater depth and provide additional input through reply comments.

#### 4. Prudency of Clean Air Act related pollution control investments -

ODOE supports prudent investments to improve any existing infrastructure of a utility, however, the financial risks associated with the age of existing coal-powered facilities have not been adequately assessed. ODOE supports the intervening parties' and the Commission's requests for a "unit-by-unit" environmental versus economic tradeoff assessment. Specifically, ODOE encourages the Commission to require PacifiCorp to undertake a futuristic and holistic review of their investments into pollution control upgrades across all coal-fired facilities that may require future BART and MACT compliance.

#### 5. Future investigation - Capacity needs and significant capital investments

In the Action Plan and supporting responses to Data Requests, PacifiCorp asserts that its capacity needs justify the major investments in combined-cycle combustion turbines (CCCTs) within the next decade. PacifiCorp has a clear capacity need that can be satisfied through a combination of Demand side management options (DSM), possible investment in less-expensive single cycle combustion turbine (SCCT) and other renewable resource options that deserve fair access. Developing a CCCT based capacity fulfillment strategy is not only weak from the current analyses, but also creates challenges for investments in flexible resource mix strategies in the future. Similarly, ODOE calls for PacifiCorp to better justify the Energy Gateway transmission project and related investment scenarios.

DATED this 25<sup>th</sup> day of August, 2011.

Respectfully submitted,

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## CERTIFICATE OF SERVICE

I hereby certify that on the 25<sup>th</sup> day of August 2011, I served the foregoing OREGON DEPARTMENT OF ENERGY'S OPENING COMMENTS upon the persons named on the service list, by mailing a full, true and correct copy thereof and to such persons waiving such service by mail who were served at their e-mail address as listed on the service list.

DATED: August 25, 2011

Janet L. Prewitt, OSB #853070 Senior Assistant Attorney General