Portland General Electric Company
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August 27, 2007

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Public Utility Commission of Oregon
Filing Center
550 Capital Street, N.E., Ste 215
Salem OR 97301-2251

Attn: Honorable Patrick Power, ALJ

RE: LC 43 – PGE 2007 Integrated Resource Plan

Dear Judge Power,

This letter and the attached exhibit, "Report on the Competitive Dynamics of Renewable Resources," is in response to your July 27, 2007, Pre-hearing Conference Memorandum. That Memorandum directed PGE to "submit an exhibit that discusses the circumstances and implications relating to a recent agreement between Pacific Gas and Electric Company and a wind energy supplier regarding a wind farm in eastern Oregon." In particular, you raised concerns about the scarcity of renewable resources available to satisfy both California and Oregon's renewable resource requirements, given the new renewable portfolio standard legislation.

In your Memorandum, you requested that we inform the Commission of our intended date for filing the exhibit. On August 3, 2007, we submitted a letter to you, which stated that we would file the exhibit by August 27, 2007.

Thank you for the opportunity to comment on this significant issue.

Sincerely,

Patrick G. Hager
Manager, Regulatory Affairs

cc: Richard George
Brian Kuehne
LC-43 Service List

enclosure

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Report on the Competitive Dynamics of Renewable Resources

Docket LC 43
Requested by Judge Power
August 27, 2007

I. Introduction:

In his July 27, 2007 Pre-hearing Conference Memorandum, Judge Power requested that PGE submit an exhibit or report "that discusses the circumstances and implications relating to a recent agreement between Pacific Gas and Electric company and a wind energy supplier regarding a wind farm in eastern Oregon." Discussion between PGE and Judge Power at the July 26, 2007 Pre-hearing Conference indicated concerns about the scarcity of renewable resources, given that renewable portfolio standards (RPS) are now in place in many Western states, including Washington, Oregon, and California.

This report is organized as follows:

- Section II discusses the particular Pacific Gas and Electric Company (PG&E) wind purchase that led to Judge Power's request for this report.

- Section III describes the competitive nature of renewable resource markets and what PGE is doing to secure renewable energy at the lowest cost for customers.

- Section IV notes actions that the Commission could take to aid Oregon utilities in meeting the RPS while keeping rates as low as possible for customers.

II. PG&E Wind Purchase:

In July 2007 PG&E announced that it will purchase the output from part (85 MW) of PPM Energy's (PPM) Klondike III wind project in Sherman County, Oregon. This transaction will help PG&E meet the California RPS, which PGE believes to require actual renewable energy, not just green tags. The Klondike III power will need transmission to PG&E's service territory, but it is unclear what transmission arrangements are in place.

Puget Sound Energy (Puget) will also purchase the output from another part (50 MW) of the Klondike III project from PPM, thereby helping Puget to meet the Washington RPS. PGE has already entered into a long-term contract with PPM for wind power from the Klondike II project. PGE's Biglow Canyon wind project, which will eventually include three phases, is also located in Sherman County. These actions will help PGE meet the Oregon RPS.

III. Competitive Renewables Market and PGE's Actions:

Given RPS requirements in Washington, Oregon, and California, there is and will continue to be significant demand for renewable energy. For example, PGE already purchases approximately 35 MWa of wind energy from Klondike II and Vansycle Ridge, and we will add approximately 47 MWa from Phase I of our Biglow Canyon project. Biglow Phases II and III will add approximately 105 MWa more of owned wind generation. Our 2007 Integrated Resource Plan (IRP) then calls for more than 200 MWa of additional renewable procurement to meet the Oregon RPS of 15% in 2015. Given the variability of wind speeds, wind resource installed capacity is approximately three times as great as average output. Therefore, these PGE actions could result in up to approximately 1,200 MW of cummulative renewable resource development.

We note that PGE's renewable requirements are lower than those of larger utilities, such as PG&E. In 2006, PG&E generated approximately 1,040 MWa, or 12% of its customers' demand, with resources that meet the California RPS requirements. Under the California RPS, PG&E must also increase eligible renewable output to 20% of customer demand by 2010. This requires additional renewable acquisition of approximately 800 MWa. If this increase were met entirely by wind resources, approximately 2,400 MW of installed turbine capacity would be needed. As noted in Table 10-1 of PGE's 2007 IRP, the California RPS standard will increase to 27% in 2015 and 33% in 2020, requiring PG&E to make approximately 1,600 – 1,800 MWa of additional renewable acquisitions (beyond those needed to meet the 20% standard in 2010).

Given relative costs and site limitations, most of this renewable demand translates specifically into demand for wind resources, both sites and turbines. Industry sources indicate that wind sites with total potential installed capacity of more than 2,500 MW are currently being considered in the Northwest (Oregon, Washington, and Idaho). Research by the Northwest Power and Conservation Council staff indicates that additional wind power development is under consideration.

There is a West Coast regional renewable resource market, rather than an "Oregon renewable sites for Oregon utilities" structure. As noted above, companies from both California and Washington have recently acquired Oregon wind resources via long-term contracts. In addition, public power entities in Santa Clara and Redding, California are purchasing wind power generated by PPM at its Big Horn project in Klickitat County, Washington. In its 2003 Request for Proposals (RFP), PGE considered several wind energy bids (both ownership and contractual structures) based on Washington sites. We also considered a geothermal bid based on a California site and a biomass bid based on a Washington site.

Given the high demand by West Coast utilities for wind energy, both turbine and site costs are increasing. Also, better capacity factor[1] sites are being developed first. Once the best sites are purchased, equally good sites will simply no longer be available (at any price). Given this strong competition for renewable, and particularly wind, resources, PGE either has taken or plans to take the following actions to meet IRP and RPS requirements at the lowest cost for customers:

- PGE considered many proposals (various sizes and ownership/contract arrangements) from three geothermal, three biomass, and eight wind bidders in our 2003 RFP.

- As discussed above, we then acted on two of the renewable RFP bids:

    - We are already purchasing approximately 27 MWa from the Klondike II project under a 30-year contract with PPM.

    - PGE will complete Phase I of our Biglow Canyon wind farm by the end of 2007. This phase will include installation of 125 MW of turbines, with expected output of approximately 47 MWa for PGE customers. We acquired the Biglow development rights from Orion Energy, an RFP bidder. Biglow is an excellent site, with a capacity factor for Phase I of approximately 37 percent.

- PGE currently plans to complete Phases II and III of Biglow Canyon in 2009 and 2010 respectively. As discussed above and in the 2007 IRP, this will add approximately 300 MW in nameplate capacity and 105 MWa in expected wind energy output for PGE customers. Although the Biglow II and III sites are not as good as the Biglow I site, these Phases will still have good capacity factors.

    - We have already made down payments on turbines for these additional Biglow phases. PGE has applied for an accounting order to allow accrual of allowance for funds used during construction (AFUDC) on these expenditures between the time of payment and the time the turbines enter PGE's rate base.

- PGE currently plans to issue an RFP for more than 200 MWa of renewable resources in 2008. This is consistent with the action plan in our 2007 IRP and will provide comprehensive information on the best renewable resources still available for development.

[1] Capacity factor refers to the average output of a resource across a year divided by its nameplate capacity (or maximum output). A higher capacity factor site means that more wind energy can be generated over the year from the same size turbines.

IV. Commission Actions to Aid Procurement of Low-Cost Renewable Resources:

Given the strong demand for renewable resources in general, and wind turbines and sites in particular, PGE requests that the Commission consider ways to aid procurement of turbines and sites at the lowest cost for customers who ultimately pay for renewable resources. Two Commission actions that would aid utilities in keeping cost as low as possible are:

1. <u>Allowing AFUDC treatment for wind turbine down payments.</u> As stated above, PGE has applied for an accounting order to allow this treatment for down payments already made on turbines for Biglow Phases II and III. Given strong demand and still limited supply, turbine prices continue to increase. Making these down payments locked in lower prices for customers. However, the carrying costs of these expenditures from the time of payment until the time they enter rate base when the projects become operational should be covered. Otherwise, there is a disincentive to make such down payments, as PGE would lose the time value of money over the down payment to project completion period.

2. <u>Allowing AFUDC treatment for expenditures to secure renewable sites in advance of project development.</u> As discussed above, there are a limited number of really good renewable sites, and once their development rights are purchased, they will simply no longer be available. As noted above, Biglow is a very good site with an above average expected capacity factor, but similar sites are becoming scarcer over time. If securing a good site a few years in advance of actual project development would result in lower final overall costs for customers, the Commission could aid the realization of these overall cost savings by allowing AFUDC treatment for site procurement expenditures from the time of payment until the time they enter rate base when the projects become operational. Without this AFUCD treatment, the utility would lose the time value of money over the site procurement payment to project completion period. Page 247 of PGE's 2007 IRP also includes a discussion of policies needed to best deal with the scarcity of renewable sites.

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CERTIFICATE OF SERVICE

I hereby certify that on August 27, 2007, I caused Portland General Electric's **REPORT ON THE COMPETITIVE DYNAMICS OF RENEWABLE RESOURCES** to be served by electronic mail to those whose email addresses appear on the attached Service List, and by First Class US Mail, postage prepaid and properly addressed, to those parties who have not waived paper service in OPUC Docket LC 43.

Dated at Portland, Oregon, this 27th day of August, 2007

Patrick G. Hager
Manager, Regulatory Affairs

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