



**Portland General Electric Company**  
121 SW Salmon Street • Portland, Oregon 97204  
PortlandGeneral.com

September 29, 2008

Filing Center  
Oregon Public Utility Commission  
550 Capitol Street NE, Suite 215  
Salem, OR 97301-2551

**Re: UM 1345: PGE Request for Proposals for Energy Resources  
(OPUC Order No. 08-234)**

On April 23, 2008, PGE issued a Request for Proposals (RFP) for renewable resources. On September 10, 2008, PGE notified all bidders as to whether their project scored sufficiently to make the initial short list. Our next step is to develop a final short list. One step in our process is to provide to OPUC Staff and non-bidding parties a "methodology for revealing, in the final short list evaluation, the value of biomass and geothermal resources compared to intermittent resources (wind, wave and solar)" (OPUC Order No. 08-234, Page 2).

PGE has worked extensively with the Independent Evaluator to develop a methodology to distinguish between intermittent and non-intermittent resources. PGE's methodology is attached and will be provided to parties to this docket.

Sincerely,

Patrick G. Hager  
Manager, Regulatory Affairs

Attachment

Cc: Lori Koho (OPUC)  
UM 1345 Service List

**UM 1345**  
**Attachment**

Methodology for Intermittent vs. Non-Intermittent Resources

## **PGE's Methodology for Valuing Non-Intermittent vs. Intermittent Renewables**

### **Introduction:**

Commission Order 08-234 states that: "At least 30 days before selecting the final short-list, the Company must provide to Staff and non-bidding parties a methodology for revealing, in the final short-list evaluation, the value of biomass and geothermal resources compared to intermittent resources (wind, wave, and solar)." The following describes PGE's proposed methodology.

Differences among these resource types fall into three broad categories:

1. Differences in **non-price scoring** due to inherent distinctions between intermittent and non-intermittent technologies including reliability and quality of energy.
2. Differences in **price scoring** due to the cost to integrate intermittent technologies, the efficiency of transmission use, and distinctions in power quality.
3. Recognition that there is an intrinsic *portfolio* benefit in diversity of **technology and fuel sources**.

The first two items above were part of the initial short list scoring process, which used the scoring procedure previously provided to the Independent Evaluator (IE) and OPUC staff. For final short list scoring, we will update the wind integration cost to incorporate the result of PGE's wind integration study. In addition, we will update non-price scoring to reflect the lower expected capacity value of wind, as described in the next section.

The final item suggests a qualitative "tie-breaker" to favor diversity.

Following is more description of each of the three items listed above.

## **Non-Price Scoring**

Factors that differentiate technologies comprise about one-third of the non-price points, but a majority of those factors address differences other than intermittency traits. Regarding intermittency, non-price scoring provides points for technologies with higher capacity value, resources with more predictable supply, and projects that are dispatchable. The points available to differentiate intermittent resources from biomass and geothermal resources equal approximately 20% of the total available non-price points.

For capacity value, PGE will make an adjustment to its non-price scoring for the final short list. In July, the Bonneville Power Administration and the Northwest Power and Conservation Council released their revised assessment of wind's contribution to capacity adequacy, in which they reduced wind's statistical capacity value from 15% to 5% of nameplate. As a result, PGE recognizes that wind has less capacity value in comparison to biomass and geothermal than was originally thought. Therefore, the non-price scoring will be adjusted accordingly.

## **Price Scoring**

For wind projects that do not include a third-party integration service in their proposal, we will revise the wind integration cost based on our study results. We discussed these study results at the public workshop on September 19, 2008, and are continuing to refine our estimate.

For solar PV projects, we will continue to use a placeholder of \$6.25 per MWH (\$2008) for integration cost. We have not yet performed a solar integration cost study, but believe it has materially more forecast predictability than wind. Hence, we are using a lower integration cost.

We assume that no incremental integration is required for biomass and geothermal projects.

Price scoring is inclusive of transmission costs and takes into account the less efficient use of transmission for low capacity-factor intermittent technologies.

Price scoring also takes into account the timing and amounts of energy received. Proposals that provide more energy during heavy load hours or during winter and summer peak seasons are more valuable. More specifically, the price score relies on the ratio between the bid price and the value of the energy for the same hours.

### **Portfolio Diversity Benefit**

The first two steps differentiate technologies based on their merits as stand-alone projects. This final step takes into account the overall supply portfolio. “All else being equal”, a portfolio of diversified technologies and fuels will hedge against overall risk (both known and unknown) better than an “all your eggs in one basket” approach. Given that current and foreseeable renewables development is dominated by wind (within the PGE markets), then non-wind opportunities that score about the same as their wind counterparts should receive priority. Such treatment could also help develop those markets, bringing more competition and diversity to the market in the long run.

### **Summary**

This methodology accounts for both project costs on a stand-alone basis and project value when treated as part of a broader supply portfolio. We determined the initial short list by combining non-price and price scoring. For determination of the final short list, we will augment the non-price and price scoring as discussed above and also consider the benefits of portfolio diversity.

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day caused the foregoing **PGE REQUEST FOR PROPOSALS FOR ENERGY RESOURCES** to be served by electronic mail to those parties whose email addresses appear on the attached service list, and by First Class US Mail, postage prepaid and properly addressed, to those parties on the attached service list who have not waived paper service from OPUC Docket No. UM 1345.

Dated at Portland, Oregon, this 29<sup>th</sup> day of September 2008.

  
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PATRICK G. HAGER

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**Docket Summary**

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**Docket No:** UM 1345

**Docket Name:** PORTLAND GENERAL ELECTRIC REQUEST FOR PROPOSALS FOR ENERGY RESOURCES

[Print Summary](#)

**Subject Company:** PORTLAND GENERAL ELECTRIC

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY Application for Request for Proposals for Energy Resources by Patrick Hager. (No electronic version available. This "draft" filing was replaced by filing on 10/2/07.)

**Filing Date:** 9/18/2007

**Final Order:** 08-234

**Order Signed:** 4/24/2008

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