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

November 19, 2014

Via Electronic Filing and U.S. Mail

Oregon Public Utility Commission
Attention: Filing Center
3930 Fairview Industrial Drive SE
PO Box 1088
Salem, OR 97308-1088

Re: UM 1610 Phase II – Investigation Into Qualifying Facility Contracting and Pricing

Attention Filing Center:

Enclosed for filing in docket UM 1610 Phase II are an original and five copies of Portland General Electric Company's ("PGE") REPLY TESTIMONY OF ROBERT MACFARLANE REGARDING SOLAR CAPACITY CONTRIBUTION.

This document is being electronically filed with the Filing Center. An electronic copy is also being served on the service list for docket UM 1610.

Thank you in advance for your assistance.

Sincerely,

Karla Wenzel
Manager, Pricing & Tariffs

KW/kr

Enclosure

cc: UM 1610 Service List

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused **PORTLAND GENERAL ELECTRIC COMPANY'S REPLY TESTIMONY** to be served by electronic mail to those parties whose email addresses appear on the attached service list for OPUC Docket No. UM 1610.

DATED at Portland, Oregon, this 19th day of November, 2014.

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I. Reply Testimony

Q. Please state your names and positions with Portland General Electric ("PGE").

A. My name is Robert Macfarlane. I am a senior analyst in Pricing and Tariffs at PGE. My qualifications appear in my Direct Testimony, Exhibit 400.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the testimony of other parties in UM 1610 regarding the methodology for calculating the solar capacity contribution adjustment for the renewable avoided cost.

Q. Please summarize your testimony.

A. PGE recommends no change to the simple methodology for calculating capacity contribution adjustments approved in Order No. 14-058. In that order, the Commission adopted Commission Staff's ("Staff") proposed method for calculating capacity contribution adjustments, as set forth in Staff/102-103.

PGE requests that the Commission reject Obsidian's proposal to direct the utilities to use the Effective Load Carrying Capability ("ELCC") method for calculating the capacity contribution of resources.

PGE requests that the Commission reject Obsidian's proposal to base a capacity contribution adjustment on the capacity factor of the Qualifying Facility ("QF").

Q. In Staff/300, Staff witness Brittany Andrus proposes a change to the solar capacity contribution calculation. Does this proposal change the intent of the capacity contribution adjustment the Commission approved in Order 14-058?

A. Yes. In Exhibit Staff/100 from the earlier phase of this docket, Staff witness, Adam Bless, stated:

> *For the Renewable Method, Staff proposes adjusting the capacity component implicit in the renewable on-peak price by the incremental capacity contribution of the specific QF resource type relative to the avoided renewable [proxy] resource.*

Staff witness Bless specifically called for an adjustment to the on-peak price. Now, Staff/300 calls for an adjustment that provides a payment based on a proportion of the dollar per kW cost of a peaking resource. This is both inconsistent with Order No. 14-058 and potentially leads to pricing that exceeds avoided cost contrary to PURPA requirements. In the remainder of this testimony I refer to the Staff proposal in Staff/300 as Staff's revised solar capacity contribution proposal.

Q. Is Staff's revised solar capacity contribution proposal similar to the method Staff had outlined in the workshops that took place prior to filing PGE/400?

A. Yes.

Q. Do you continue to support your testimony as outlined in PGE/400?

A. Yes, I continue to support the methodology for calculating solar capacity contribution adjustment approved in Commission Order 14-058; PGE's concerns about changing the methodology as outlined in PGE/400 remain.

Q. What type of power purchase agreement ("PPA") is required for a solar QF?

A. A solar QF requires a PPA for a variable energy resource. These resources by definition provide intermittent energy. The PPA does not require a specific amount of output, only that the resource is available for a minimum percentage of time via the mechanical availability percentage specified in the PPA.

Q. Do PPAs for base load resources require a minimum amount of energy?

A. Yes, the QF specifies a minimum energy amount in the PPA. Therefore a minimum capacity factor is required.

Q. What additional piece of data is needed in order to implement Staff's revised solar capacity contribution proposal?

A. The capacity factor of the solar resource is necessary to convert the dollars per kW into a volumetric or dollars per kWh price.

Q. Does the use of a capacity factor create inconsistency?

A. Yes, variable energy resources provide an availability guarantee and not an energy or capacity factor guarantee as provided by base load QFs. In other words, the QF generators should have the ability to produce and be available, but they do not have a requirement to actually generate some minimum amount of energy.

Q. Is it possible that the price for solar resources could be higher than the base load resource prices under Staff's revised solar capacity contribution proposal?

A. Yes. When the incremental solar capacity contribution percentage exceeds the assumed solar capacity factor, the on-peak price of the solar resource, under Staff's revised solar capacity contribution proposal, will exceed the on-peak price for a base load resource. If, for example, the incremental capacity contribution is for solar is 25% and the assumed capacity factor for solar is any less than 25%, the on peak price for a solar QF will exceed the on-peak price for a base load QF.

Q. What is the incremental capacity contribution percentage?

A. It's the difference between the solar capacity contribution percentage and the avoided renewable resource capacity contribution percentage. The avoided renewable resource is currently wind.

Q. What does Obsidian recommend regarding determining the price for solar QFs, assuming Staff's revised solar capacity contribution proposal?

A. In Obsidian/200 witness David Brown recommends, "that the most appropriate volumetric rate option is an adjustment to the energy price based on a specific renewable solar QF project's expected annual hours of generation."

Q. Would the utility have the ability to publish standard prices under this proposal?

A. No. Since the adjustment would be specific to each QF, published prices for solar QFs would not be possible. This would be inconsistent with standard rates under PURPA as implemented by the Commission in its order (See Order Nos. 05-584 and 11-505) and administrative rules (See OAR 860-0040).

Q. Under what scenario does PGE provide prices specific to the QF?

A. PGE's negotiated prices are available under Schedule 202 and the associated PPAs.

Q. Are you suggesting that the QF already has the ability to negotiate a QF-specific price?

A. Yes. If the QF prefers a QF-specific price, then the utility should have the ability to create a customized price based on QF-specific characteristics using the appropriate adjustment factors.

Q. Does Obsidian recommend a specific method to calculate the solar capacity contribution percentage?

A. Yes, Obsidian/200 witness David Brown recommends that the Commission direct the utilities to use the ELCC method to calculate the solar capacity contribution percentage.

Q. Is the method of calculating the solar capacity contribution an issue that is within the scope of this part of the proceeding?

A. No. Not only was the method to calculate the solar capacity contribution not identified as an issue for this part of this proceeding, this is not the appropriate venue to address the methodology.

Q. What is the appropriate venue to address the methodology for calculating the solar capacity contribution?

A. The methodology comes from the integrated resource plan of the utility. Staff, in its recommendation on PGE's 2013 Integrated Resource Plan (LC 56), to the Commission at the November 12, 2014 public meeting, recommended the Commission open an investigation into determining a renewable generator's contribution to peak, and use the outcome calculation method for avoided cost price setting.[1]

Q. Does this conclude your testimony?

A. Yes.

[1] http://www.puc.state.or.us/meetings/pmemos/2014/111214/reg1.pdf