

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: October 11, 2016**

REGULAR X CONSENT _____ EFFECTIVE DATE October 12, 2016

DATE: October 5, 2016

TO: Public Utility Commission

FROM: Brittany Andrus *BA*

THROUGH: *I* Jason Eisdorfer and *JC* John Crider

SUBJECT: PORTLAND GENERAL ELECTRIC: (Docket No. UM 1610) Compliance Filing to Update Schedule 201, Qualifying Facility 10 MW or Less Avoided Cost Power Purchase Information.

STAFF RECOMMENDATION:

Staff recommends that the Commission issue an order approving Portland General Electric's (PGE or Company) avoided cost prices (Schedule 201) filed on July 12, 2016, in compliance with Order No. 16-174.

DISCUSSION:

Issue

Whether the Commission should approve PGE's Schedule 201 avoided cost prices for Qualifying Facilities (QF).

Applicable Orders

On May 13, 2016, the Commission issued Order No. 16-174 in Phase II of its Investigation into Qualifying Facilities Contracting and Pricing (Docket No. UM 1610). Two of the issues resolved in Order No. 16-174 pertain to the calculation methodology for capacity payments to QFs during the utility's resource deficiency period for both the standard and non-standard avoided cost price streams. In its resolution of these issues, the Commission adopts the adjusted calculation as specified in Staff's testimony,¹ and directs utilities to "file revised avoided cost schedules that implement the resolutions made in this order."²

¹ Order No. 16-174 at 12.

² Ibid. at 31.

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Analysis

Order No. 16-174 directed the utilities to correct an “inadvertent flaw”³ of the rate paid to wind and solar QFs by implementing a new methodology for renewable resources, based on the following steps:

- Calculate the generic value of capacity on a \$/kW-year basis, and multiply by the contribution to peak (CTP) percentage for the QF resource type (based on PGE’s acknowledged 2013 IRP, this value is five percent for wind, and five percent for solar). This yields the total dollars per MW that is to be paid to the QF over the course of a year.
- Multiply the dollars in Step 2 by the on-peak⁴ capacity factor (CF) of the QF (e.g., the ratio of the MWh generated during on-peak hours to the total number of on-peak hours), and by the number of on-peak hours. This step spreads the annual value of the capacity over the MWh that the QF is expected to generate over the course of a year (additional adjustments for inflation and line losses are also included).

For illustration, the following is a simplified example for a one MW solar project:

\$175/ kW-year value of capacity value multiplied by 5% CTP = \$8.75/kW-year value of solar capacity

35% on-peak CF multiplied by 5,240 on-peak hours = 1,834 on-peak MWh generated

\$8,750/MW-year divided by 1,834 on-peak MWh = \$4.68/MWh capacity payment

Therefore,

\$4.68 multiplied by 1,834 on-peak MWh = \$8,750/MW = value of solar capacity

When comparing the current avoided cost price for capacity to the price using the new methodology, one would expect that by eliminating the double discount, the new price would be higher. This is not the case in PGE’s filing. Because PGE’s renewable capacity contribution percentages for both wind and solar are five percent, the only differentiation under the new methodology is the on-peak capacity factor. Since the on-peak capacity factor for solar is high than wind, the resulting price per MWh is lower. A simple way to think about this is that solar will produce more MWh on peak, so a lower

³ Order No. 16-174 at 12.

⁴ On-peak hours are all hours between 7:00 a.m. and 10:00 p.m. Monday through Saturday, excluding holidays.

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price per MWh is calculated in order to sum to the same total annual dollars paid for capacity.

In the new PGE IRP, currently under development, the contribution to peak for solar will be higher than five percent. Assuming a hypothetical 20 percent CTP, the new methodology produces a higher on-peak price (e.g., \$93.56 per MWh in January 2020) than the prior method (\$85.19 per MWh in the same month).

Staff has reviewed PGE's calculations used to derive the on-peak capacity factor for both wind and solar, as well as the calculations for the value of capacity, and the resulting capacity payment added to on-peak hours. Staff finds no inconsistencies between the avoided cost prices in this filing and the methodology directed by the Commission in Order No. 16-174.

Related Issue

PGE's avoided cost filings have typically not included workpapers describing the methodologies used in calculating the avoided costs; rather, PGE sends the workpapers to Staff with the direction that they not be posted with the filing. Interested parties can request the workpapers directly from PGE.

In its testimony for Phase II of this docket, Staff proposed minimum filing requirements (MFRs) for utility avoided cost filings. While the Commission did not adopt an MFR requirement, it did state, "Consequently, while we value Staff's proposed MFRs because they identify the information and inputs that utilities need to provide, we decline to add potentially significant administrative burden and time to the front end of the process. Utilities have provided such information upon Staff's request. We urge the utilities to continue to provide all information called for in the MFRs as a matter of course. Regularly providing such in a clear and consistent format will facilitate the timely adoption of avoided cost prices."⁵

The MFR document that Staff proposed in Docket No. UM 1610 states, "as part of its filing, the utility will provide workpapers, including spreadsheet files in electronic format with formulae intact, supporting the avoided cost prices. For items directly from the Integrated Resource Plan (IRP), the utility will provide the document name, date, and page number. For items not directly from the IRP, the utility will provide explanations in its application."⁶

While the Commission did not direct the use of the MFRs for avoided cost updates, Staff and parties would benefit if the full documentation of the changes is included with

⁵ Order No. 16-174 at 15.

⁶ Id., Appendix B, p. 1.

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the filing. Staff has encouraged PGE to implement this practice, and the Company has informally agreed to provide the information in future filings.

Conclusion

Based on its review, Staff concludes that the methodology directed by the Commission in Order No. 16-174 has been accurately applied in calculating PGE's renewable and nonrenewable avoided cost prices in Schedule 201.

PROPOSED COMMISSION MOTION:

Approve PGE's Compliance Filing for Avoided Cost Power Purchase Information (Schedule 201) filed on July 12, 2016, in compliance with Order No. 16-174.

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