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January 18, 2018

VIA ELECTRONIC FILING

PUC Filing Center
Public Utility Commission of Oregon
PO Box 1088
Salem, OR 97308-1088

**Re: UM 1829 - Portland General Electric Company's Errata to Response
Testimony**

Attention Filing Center:

Portland General Electric Company requests that the enclosed Errata—pages 10 and 25-26 of the Greene-Moore Response Testimony and page 14 of the Afranji-Larson-Richard Response Testimony—be substituted for the corresponding pages.

These Errata are filed to correct the following:

- A typographical error on page 10, line 3 of the Greene-Moore Response Testimony (PGE/100);
- A calculation error and missing footnote on page 25, line 11 of the Greene-Moore Response Testimony (PGE/100), which increases the amount of text on page 26; and
- An error in the description of PacifiCorp's OASIS on page 14, lines 13-17 of the Afranji-Larson Richard Response Testimony (PGE/300).

If you have any questions regarding these corrections, please contact this office.

Very truly yours,

Wendy McIndoo
Office Manager

Attachments

UM 1829

REDLINED VERSION

ERRATA PAGES 10, 25-26

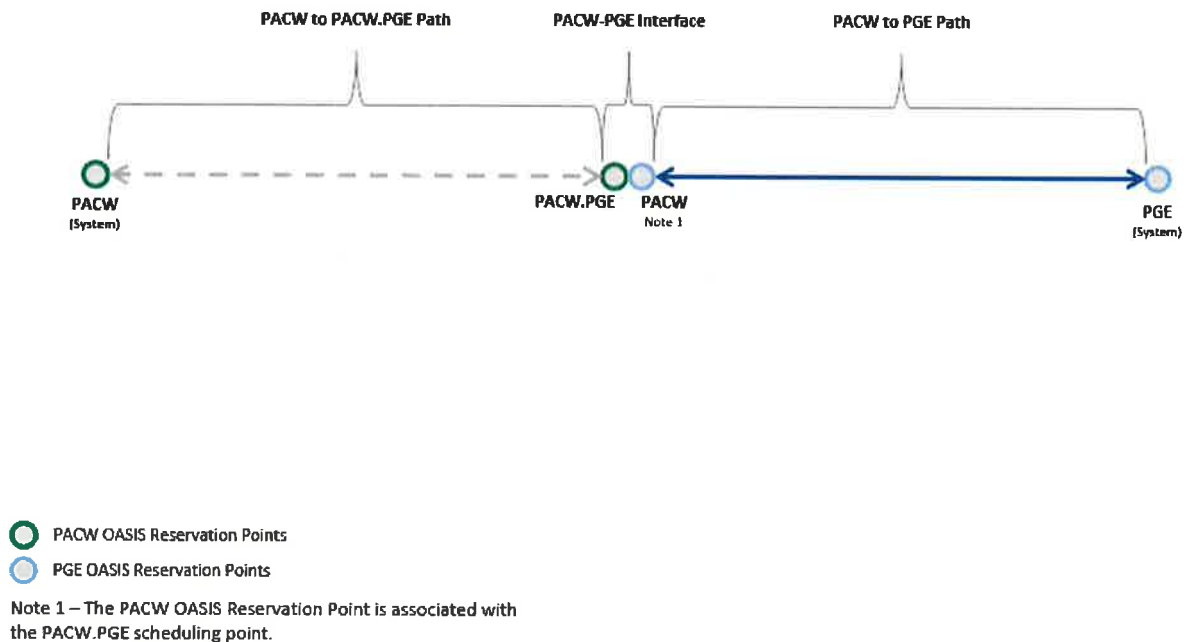
**RESPONSE TESTIMONY OF BRETT GREENE AND
GEOFFREY MOORE (PGE/100)**

ERRATA PAGE 14

**RESPONSE TESTIMONY OF FRANK AFRANJI, SEAN
LARSON, AND MATTHEW RICHARD (PGE/300)**

1 and we will use PACW-PGE interface when referencing the interface as a whole.
2 When referring to the path on PGE's system between PGE and the PACW-PGE
3 interface, we will use PGE-to-PACWPACW-to-PGE path. The following figure is a
4 conceptual diagram of the PACW-PGE interface.

Figure 1: PACW-PGE interface



- 5 **Q. Please explain how PGE's QF contracting personnel became aware of the**
6 **constraint at the PACW-PGE interface.**
- 7 A. On April 5, 2017, Mr. Moore, was talking with one of the PGE employees
8 responsible for QF contracting, John Morton, about PGE's reservation of all
9 remaining ATC on the PACW-to-PGE path for participation in the EIM. Mr. Morton
10 had just recently completed negotiations and executed a Schedule 202 PPA with
11 Airport Solar—a 47 MW solar QF located in PacifiCorp territory that planned to
12 deliver via the PACW-PGE interface—and so became concerned about the impact of

1 **to a specific POD, suggesting that the utility is required to accept an off-system**
2 **QF's output at any point on its system.²³ What is your response?**

3 A. Again, we are not lawyers and will not address this legal assertion. However, from a
4 policy standpoint, this position is flawed. In the case of the Blue Marmots, there is an
5 interface on PGE's system where PGE can accept the Blue Marmots' output without
6 compromising PGE's ability to participate in the EIM or imposing upgrade costs. We
7 understand that delivery to PGE at the BPA-PGE interface will involve additional
8 expense for the Blue Marmots. However, that is a cost that the Blue Marmots should
9 be able to absorb—a point the Blue Marmots have not clearly contested.

10 PGE estimates that the Blue Marmots' total revenues under the PPAs could
11 exceed \$~~160200~~ million.²⁴ PGE's customers should not be required to relinquish the
12 benefits expected from EIM participation or incur upgrade costs to save EDPR—a
13 multi-national development corporation—\$14 million over the next fifteen years.

14 **Q. EDPR has also suggested that PGE should pay for any upgrades necessary to**
15 **accept the Blue Marmots' output at the PACW-PGE interface.²⁵ Do you agree**
16 **that is appropriate?**

17 A. No, we do not. First, as discussed in detail in the Transmission Testimony, there is no
18 method by which the PACW-PGE interface can be upgraded to increase the TTC on
19 the PACW-to-PGE path sufficient to deliver the Blue Marmots' generation. If the

²³ Blue Marmot/300, Moyer/7.

²⁴ PGE used the average 24-hour profile of generation (MWh) and the annual degradation factor provided in the Blue Marmots' IIRs to estimate total monthly MWh, by year, over the 15-year term of fixed prices in the PPAs. Using this estimate, the monthly generation was divided into on-peak and off-peak estimates by assuming that four days of each month (96 hours) are either a Sunday or NERC holiday because these are types of days for which all hours are designated off-peak. PGE understands that certain hours of Monday-Saturday (non-NEC holidays) are off-peak; however, there was insufficient detail to create estimates for such hours. Furthermore, because the Blue Marmots are solar facilities, it is unlikely that a substantial amount of generation would occur during these Monday-Saturday off-peak hours. Using the generation estimates for each project and the pricing from the Blue Marmots' PPAs, PGE calculated the estimated annual revenue over a 15-year period for all of the Blue Marmots.

²⁵ Blue Marmot/300, Moyer/5, 16-17.

1 Blue Marmots continue to refuse to deliver their output to the BPA-PGE interface,
2 then the only solution would be for the Blue Marmots to build a generation lead line
3 from their facilities directly to PGE’s Bethel substation, avoiding the PACW-PGE
4 interface, and directly interconnecting to PGE’s system. It is entirely inappropriate to
5 suggest that the cost of this project—or any other transmission upgrade made on the
6 Blue Marmots’ behalf—be borne by PGE’s retail customers.

7 EDPR chose to site their projects hundreds of miles from PGE’s service
8 territory, and have determined to sell their output to PGE, as opposed to PacifiCorp—
9 the utility to which they are directly interconnected. They should not be allowed to
10 shift the financial consequences of those decisions to PGE’s customers.

11 **Q. Does this conclude your direct testimony?**

12 **A. Yes.**

1 system, an E-Tag must map a valid path from source to sink in order for the energy to be
2 transmitted.

3 If a customer is scheduling transmission over the systems of multiple transmission
4 providers, each transmission provider affected must validate the E-Tag for the transmission
5 over their own system. If a customer submits an E-Tag using another transmission
6 customer's reservation number, the customer who holds the reservation also must approve
7 the E-Tag before it is validated. If a customer submits an E-Tag that cannot be validated,
8 then the transmission service cannot be scheduled, and the power will not be delivered or
9 received.

THE PACW-TO-PGE PATH

10 **Q. Which transmission path is at issue in this case?**

11 A. The Blue Marmots seek to deliver their output to PGE through the PACW-PGE interface,
12 which means that it must travel into PGE's system over the PACW-to-PGE path. On
13 PacifiCorp's side of the interface, there ~~are three~~ is an OASIS reservation points and ~~three~~
14 a scheduling points — "Bethel," "Gresham," and named "PACW.PGE," — that which is are
15 used to procure and schedule transmission to or from PGE's BAA. PGE's side of the
16 interface has ~~these same three~~ a scheduling point called "PACW.PGE," s, but all which is are
17 mapped to ~~a single~~ the OASIS reservation point — "PACW." The Blue Marmots have
18 reserved transmission from PacifiCorp to PacifiCorp's PACW.PGE reservation point.

19 **Q. What is the TTC on the PACW-to-PGE path?**

20 A. The TTC on the path differs in the summer (May 1 to October 31) and in the winter
21 (November 1 to April 30) because transmission facilities can transfer more power without
22 overheating in cooler weather. Currently, the winter rating on the path is 415 MW and the
23 summer rating is 320 MW. Because the summer rating is lower, it dictates the maximum
24 long-term firm ATC on the path, and we generally refer to the summer TTC value as the
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UM 1829

CLEAN VERSION

ERRATA PAGES 10, 25-26

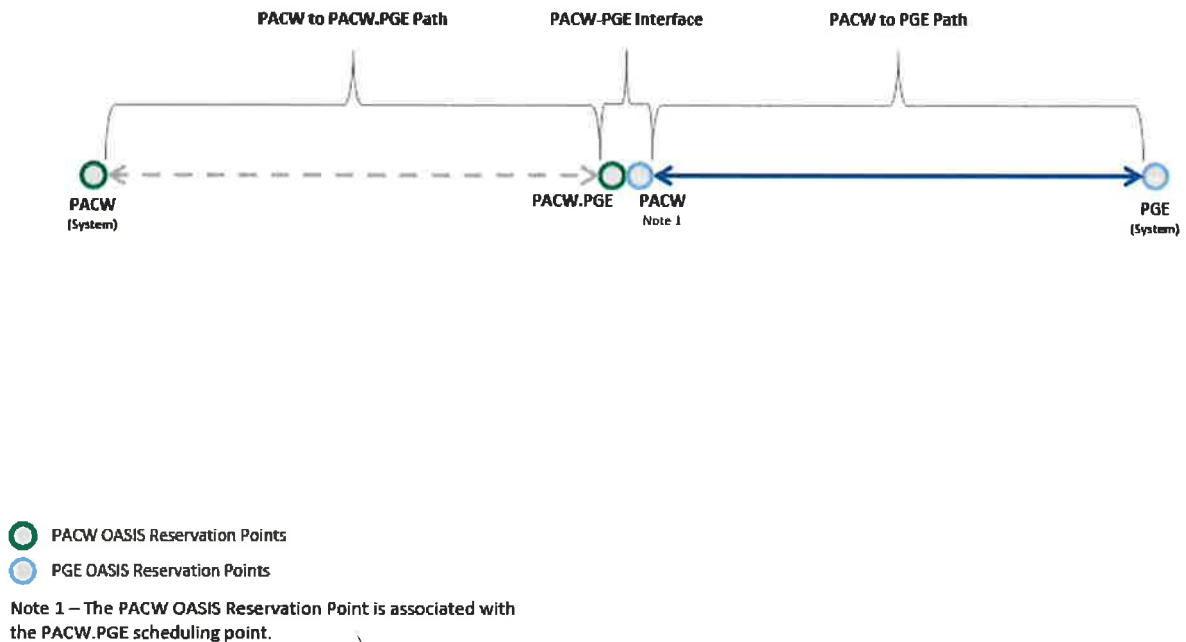
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