**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

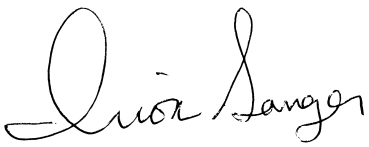
**UM 1829, UM 1830, UM 1831, UM 1832, UM 1833**

| | | |
|---|---|---|
| Blue Marmot V LLC (UM 1829)<br>Blue Marmot VI LLC (UM 1830)<br>Blue Marmot VII LLC (UM 1831)<br>Blue Marmot VIII LLC (UM 1832)<br>Blue Marmot IX LLC (UM 1833),<br>Complainants,<br><br>v.<br><br>Portland General Electric Company,<br>Defendant. | )<br>)<br>)<br>)<br>)<br>)<br>)<br>)<br>)<br>)<br>) | REVISED OPENING TESTIMONY |

Blue Marmot V, LLC, Blue Marmot VI, LLC, Blue Marmot VII, LLC, Blue Marmot VIII, LLC, and Blue Marmot IX, LLC (collectively the "Blue Marmots") submit this supplemental filing to correct the Opening Testimony of Keegan Moyer (Blue Marmot/300, Moyer) pursuant to the Administrative Law Judge ("ALJ") Rulings on December 13, 2017 and February 22, 2018.

Dated this 29th day of August 2018.

Respectfully submitted,



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**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

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| BLUE MARMOT IX LLC (UM 1833) | ) |
| Complainants | ) |
| vs. | ) |
| PORTLAND GENERAL ELECTRIC | ) |
| COMPANY | ) |
| Defendant | ) |
| Pursuant to ORS 756.500. | ) |
| | ) |

# REVISED OPENING TESTIMONY OF

# KEEGAN MOYER

## ON BEHALF OF THE

## BLUE MARMOT V, VI, VII, VIII, AND IX

**August 29, 2018**

## I. INTRODUCTION

**Q. Mr. Moyer, please state your name and business address.**

**A.** My name is Keegan Moyer. My business address is 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

**Q. By whom are you employed and in what capacity?**

**A.** I am a Principal in the firm of Energy Strategies, LLC ("Energy Strategies"). Energy Strategies is an independent energy consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

**Q. Please describe your professional responsibilities, background, and experience.**

**A.** As a Principal with Energy Strategies, where I have been employed since 2014, I assist private and public sector clients in the areas of electric transmission, generation, and energy-related economic and public policy analyses. In that capacity, I specialize in transmission system analysis and strategy for power generation and transmission projects. I have performed numerous technical and economic assessments of transmission and generation projects and have a strong understanding of power markets, system planning, and the services that allow power to interconnect and move across the transmission system.

Prior to joining Energy Strategies, I was the Manager of Transmission Expansion Planning at the Western Electricity Coordinating Council ("WECC"). In that role, I was responsible for regional transmission assessments and the development of transmission plans for the Western Interconnection. I was responsible for providing leadership and direction to the WECC Transmission

Expansion Planning Department, facilitating Transmission Expansion Planning Policy Committee stakeholder activities, and managing the $14.5 million Department of Energy Regional Transmission Expansion Planning Grant. I also advised WECC senior management on the Federal Energy Regulatory Commission ("FERC") Order 1000 and other relevant energy and planning policies.

In addition to my transmission policy background, I have extensive technical experience designing and conducting production cost model and power flow simulation studies, and providing policy-oriented analyses of complex power system issues. I regularly deal with FERC-approved Open Access Transmission Tariffs, qualified facilities ("QFs"), interconnection and transmission analyses, and support clients in navigating generation interconnection, transmission service, and transmission planning processes.

My academic background is in both engineering and business management. I have completed a Master of Science in Engineering and Technology Management and a Bachelor of Science in Engineering with Mechanical Specialty, both at the Colorado School of Mines.

In connection with my testimony in this docket, I am familiar with the relevant transmission systems, obligations of QFs as it relates to transmission and interconnection, avoided cost pricing, and the types and nature of transmission service available under Portland General Electric Company's ("PGE") transmission function's ("PGE Transmission") Open Access Transmission Tariff.

**Q. Have you testified previously before any other state utility regulatory commissions?**

**A.** Yes. I have testified regarding transmission issues before the Colorado Public Utilities Commission and the Utah Public Service Commission.

**Q. On whose behalf are you appearing in this proceeding?**

**A.** Blue Marmot V, VI, VII, VIII and IX ("Blue Marmots").

**Q. Please summarize your testimony.**

**A.** The Blue Marmot QFs have signed power purchase agreements ("PPAs") to sell their output to PGE under the Public Utility Regulatory Policies Act ("PURPA"). As "off-system" QFs, the Blue Marmots have arranged for transmission service that will allow them to deliver the QF output to PGE's system. However, PGE's merchant function ("PGE Merchant") is refusing to counter-sign the Blue Marmot PPAs on account of transmission constraints on PGE Transmission's system at the location where the Blue Marmots have arranged to deliver the power. [redacted] I spend the majority of my testimony explaining why this is the case, while also discussing practical transmission options that could be implemented that would allow PGE Merchant to effectively and efficiently discharge their PURPA responsibilities to accept and manage the QF net output at the location the Blue Marmots have identified.

In addition, I address the notion that the Blue Marmots should be held responsible for potential costs to upgrade PGE's transmission system to further facilitate their delivery [redacted]

[redacted]

[redacted].

Lastly, I review two potential discrimination issues at play that appear to be working against the Blue Marmot projects. The first relates to how PGE Merchant is handling the Blue Marmot QFs relative to other QFs with similar transmission arrangements and contractual obligations, and the other considers PGE Merchant's inability to act objectively and fairly when there is a parallel need to reserve transmission for itself and QFs at the same location.

## II. PURPA OBLIGATIONS

**Q. Please summarize this portion of your testimony.**

**A.** [redacted] While I am not a lawyer, I will explain my understanding of a QF's obligations under PURPA, and then explain why the Blue Marmots have met these obligations.

[redacted]

PGE Merchant, however, has refused to purchase the Blue Marmots' net output and is instead demanding that they pay for transmission upgrades on PGE Transmission's system or deliver their net output to a POD on PGE Transmission's system that has sufficient long-term Available Transfer Capability ("ATC"). PGE Merchant should be barred from raising these obstacles, and should be required to purchase their net output. [redacted]

[redacted][1]

In addition, I will explain what PGE Merchant should have done instead of refusing to purchase the Blue Marmots' net output, which is to accept the power and manage it like their other generation resources or market purchases. PGE Merchant is inappropriately attempting to push its PURPA obligations to accept and manage the Blue Marmots' net output back on to the Blue Marmots. The Blue Marmots are not required to manage PGE's system or identify all the solutions that PGE could consider, but I have identified some options that PGE could have and may still implement to remedy the situation. These include:

(1) PGE Merchant converting or otherwise managing existing transmission rights to enable and appropriately prioritize the delivery of QF output to their network loads, which could include reducing its own generation or market purchases to accommodate the QF power within those rights;

(2) PGE Merchant making alternative transmission arrangements on other third-party transmission systems to deliver the QF output to a location of PGE's choosing; or

(3) PGE Merchant requesting and paying for PGE Transmission to construct network transmission upgrades.

In the end, it is not the Blue Marmots' responsibility to manage PGE's operations, and there may be more cost-effective ways for PGE Merchant to accept the QF power and fulfill its PURPA obligations.

[1] See e.g., Blue Marmot/202, Talbott/44 (PGE Schedule 201 attached to Blue Marmot V executed Power Purchase Agreement Sheet No. 201-3: "…and making the arrangements necessary for transmission of power to the Company's [PGE] system.").

**Q. Is PGE required to purchase the net output of the Blue Marmots' electric generation?**

**A.** Yes. Each of the Blue Marmot projects are QFs under PURPA, which obligates PGE Merchant to purchase each Blue Marmot project's net output. My understanding is that PGE Merchant does not dispute that it is obligated in principle to purchase the Blue Marmots' generation. Instead, PGE Merchant is refusing to purchase the output at the POD on PGE Transmission's system that the Blue Marmots have identified, and is requiring the Blue Marmots to deliver to a different POD or pay for transmission upgrades to PGE's system.

**Q. What is your understanding of a QF's obligation to deliver power to a utility under PURPA?**

**A.** PGE is obligated to purchase a QF's net output regardless of whether a QF is directly interconnected to the purchasing utility (which in Oregon is called an "on-system QF") or is interconnected with a different utility and wheeling its net output over a third party's transmission system (which in Oregon is called an "off-system QF") to the purchasing utility. [redacted]

[redacted]

**A.** [redacted] As explained by Mr. Talbott, the Blue Marmots will be interconnected with PacifiCorp and have executed transmission service agreements to purchase firm

point-to-point transmission service from PacifiCorp to deliver the net output of the QF projects to PGE at the "PACW.PGE" POD. This means that the Blue Marmots have reserved capacity on PacifiCorp's system to deliver their net output to PGE at the point of change of ownership between PacifiCorp and PGE. PGE Merchant agrees that the PACW.PGE POD is located on its system,[2] and the PACW.PGE POD is the only point on PGE's transmission system where PGE can receive delivery of power directly from PacifiCorp's transmission system.

[redacted] PGE Merchant contends that it is willing to accept the Blue Marmots' delivery at a POD of *its* choosing, namely where PGE Transmission and Bonneville Power Administration's ("BPA") transmission systems interconnect. However, this would require Blue Marmot to incur significant, unnecessary transmission charges to move power from PacifiCorp's system, through BPA's system to the POD where BPA and PGE intersect (BPAT.PGE). [redacted]

[2] Blue Marmot/301, Moyer/26-28 (PGE Response to Blue Marmot Data Request ("DR") 44-46).

[redacted]

**Q. Are you aware of any exceptions to PGE's mandatory purchase obligation?**

**A.** Yes, but they do not apply here.[3] There are two general categories of exceptions: 1) exceptions that allow a utility to refuse to enter into a QF PPA; and 2) exceptions that allow a utility to temporarily refuse to purchase the output from an operating QF project. Neither category applies to the Blue Marmots.

The first category, which allows utilities to avoid PURPA obligations entirely, including executing PPAs, applies only if QFs have nondiscriminatory access to competitive markets in which they can meaningfully sell their capacity and electric energy output. This exception can only be established through FERC filings and approvals. Since Oregon QFs do not have access to competitive markets and PacifiCorp and PGE have not made these filings, this exception does not apply.

The second category of exceptions are temporary in nature and apply to QFs that are *already operating* under a PPA. One allowable exception under this category authorizes a utility to not purchase a QF project's net output during any limited period when there is a system emergency.

Another temporary exception for *operating* QFs allows a utility to curtail a QF's net output during specific operational circumstances during which accepting

[3] 18 CFR 292.304(f);18 CFR 292.307(b).

unscheduled QF output would require reductions in the output of base load generation units due to light load conditions.

**Q. Do any of these exceptions allow PGE Merchant to issue a blanket refusal to even enter into a power purchase agreement?**

**A.** No. As explained above, the Blue Marmots do not have access to competitive markets and exceptions for system emergencies and light load conditions only apply during specific periods of time when the QF is operational. Thus, these provisions cannot be used as justification for PGE Merchant's refusal to execute contracts with the Blue Marmots.

**Q. Please explain what is meant by system emergency conditions.**

**A.** A system emergency is when there is an imminent risk of significant disruption of service to customers or danger to life or property. A system emergency occurs when the transmission system is operating within its planned limits with sufficient transfer capability, but there is an unplanned or unusual event that requires the transmission provider to curtail electricity to prevent the system emergency.

**Q. Does PGE claim that there would be system emergencies if it accepted the Blue Marmots' net output?**

**A.** Yes. PGE Merchant claims that accepting the delivery of Blue Marmot's output could harm system reliability by resulting in usage of the path above its total transfer capability which could be detrimental to system reliability.[4]

**Q. Do you agree with PGE?**

**A.** No. PGE Merchant is describing a situation in which PGE accepts the Blue Marmots' net output without otherwise operating its system as a reasonable or prudent utility. As explained below, PGE Merchant has options for accepting the Blue Marmots' net output without causing system emergencies by either increasing the total transfer capability of the relevant path or staying within the existing transfer capability on its system by managing existing transmission capacity differently.

**Q. Please explain what is meant by light load conditions.**

**A.** Light load conditions are a narrow circumstance in which a utility operating only base load units would be forced to cut back output from the generation units to accommodate unscheduled QF energy purchases. These base load units might not be able to increase the output rapidly enough if the QF resource output suddenly drops off, which may result in the utility relying upon higher cost units to maintain system reliability. FERC has confirmed that this exception only applies during this unique light loading scenario and does not apply to curtail energy for only general economic reasons.

**Q. Does PGE claim that there would be curtailments because of light load conditions if it accepted the Blue Marmots' net output?**

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[4] Blue Marmot/301, Moyer/36 (PGE Response to Blue Marmot DR 103).

**A.** No. PGE concedes that it does not anticipate this type of circumstance based on current conditions.[5]

**Q. Even if these circumstances applied, are they relevant to the Blue Marmots?**

**A.** No. [redacted] As explained by Mr. Talbott, the Blue Marmots have LEOs with PGE.

**Q. Is there an exception for a utility that has entered into contractual commitments that limit its ability to accept the QF power?**

[redacted] My understanding is that a utility's PURPA obligations supersede any contractual obligations that a utility might claim would prohibit its ability to purchase a QF's net output. [redacted]

[redacted]

[5] Blue Marmot/301, Moyer/37 (PGE Response to Blue Marmot DR 104).

[redacted]

**Q. Does this mean that the Blue Marmots do not pay for any transmission costs?**

**A.** No. The Blue Marmots will pay for point-to-point transmission service from PacifiCorp to wheel their power to PGE, and are paying for the costs to interconnect to PacifiCorp's system at the POI. Thus, the Blue Marmots are already paying significant transmission and interconnection costs to deliver their power to PGE.

**Q. Why is PGE Merchant refusing to execute a contract with the Blue Marmots?**

**A.** PGE Merchant claims that the Blue Marmots have not made necessary transmission arrangements to deliver their net output to PGE's system. Specifically, PGE Merchant is refusing to agree to accept any power deliveries at the PACW.PGE POD. PGE Merchant appears to agree that the Blue Marmots have made arrangements to deliver the power to PGE's system,[6] but PGE says

[6] Blue Marmot/301, Moyer/26 (PGE Response to Blue Marmot DR 44).

that it will not accept delivery at that the PACW.PGE POD because there is insufficient ATC to deliver the QF power from the POD to PGE Merchant's load.

**Q. What is PGE Merchant's justification for refusing to execute a PPA?**

PGE Merchant has proposed that the Blue Marmots must either: 1) make arrangements to deliver their power to PGE's system through another POD that is not constrained; or 2) pay for required studies and upgrades to PGE's system at the PACW.PGE POD.[7] Instead of taking responsibility for the power that is delivered to its system, PGE Merchant has taken the position that the Blue Marmots must deliver to a different POD or pay for transmission upgrades to increase transmission capability on PGE's system between the PACW.PGE POD and PGE's network load.

**Q. Please explain what PGE Merchant means by making arrangements to deliver to another POD.**

**A.** As one of two alternatives offered by PGE Merchant to overcome the transmission congestion PGE Merchant claims to exist on PGE's transmission system, PGE Merchant would require the Blue Marmots to purchase transmission on BPA's system to deliver at the PGE.BPA POD. This would require a "double wheel" as the Blue Marmots would need to purchase point-to-point transmission from both PacifiCorp and BPA. As explained in Mr. Talbott's testimony, this would result in approximately $14 million in additional costs for the Blue Marmots over the term of the PPAs.

**Q. Please explain what PGE Merchant means by paying for transmission studies and upgrades at the PACW.PGE POD.**

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[7] E.g., UM 1829 PGE Answer to Blue Marmot V Complaint at ¶ 70-71.

**A.** There is limited ATC at the PACW.PGE POD, primarily because PGE Merchant has reserved the transmission for itself, including for its participation in the EIM, serving its own load, and other uses.

**Q. How would the Blue Marmots pay for transmission studies and upgrades?**

**A.** PGE Merchant has not made it clear how this would work. QFs, by nature, are not transmission customers on the purchasing utility's system, so the specifics are unknown. It appears that PGE Merchant is requiring that the Blue Marmots become PGE transmission customers and make a transmission service request to deliver from one location on PGE's transmission system (i.e., the PACW.PGE POD) to another location on PGE's transmission system (i.e., PGE load). PGE Transmission would then study whether any transmission upgrades are necessary and how much they would cost. PGE Merchant would then require the Blue Marmots to pay for any needed transmission upgrades and for transmission service on PGE's system. While PGE Merchant does not appear willing to do so, it is possible that PGE may reimburse the Blue Marmots for these paid upgrades and reduce the transmission rates they pay to PGE Transmission (if any). Even if PGE Transmission reimburses or credits the Blue Marmots for payment of these transmission upgrades, the Blue Marmots would not be held harmless because they would then have to pay PGE Transmission for use of PGE's transmission system as long as they are selling power to PGE. This process is consistent with a non-QF generator seeking point-to-point transmission service, however this is not at all appropriate for QFs. Given that QFs are not required to purchase transmission on the purchasing utility's system and the unprecedented nature of

PGE Merchant's actions, PGE Merchant may not even understand what it intends to require the Blue Marmots to do.

**Q. Do you agree with PGE Merchant's proposal that the Blue Marmots must make arrangements to deliver to a different POD or that the Blue Marmots must pay for transmission studies and upgrades at the PACW.PGE POD to allow PGE Merchant to accept the power?**

**A.** No. [redacted]

**Q. Instead of requiring the Blue Marmots to deliver to another POD or pay for network upgrades, what are PGE's options?**

**A.** After assuming its responsibility for the power, PGE Merchant must then decide what it wants to use the net output for. PGE Merchant can make this decision independently. After doing so, PGE Merchant can make the necessary transmission arrangements to ensure that the Blue Marmots' net output is transferred from the PACW.PGE POD to the location in which PGE elects to use the power. Some of the specific options that PGE Merchant can take when managing the power could include PGE Merchant: 1) completing transmission upgrades that increase ATC and allow for PGE to accept the QF output at PACW.PGE POD by obtaining *new* transmission rights; 2) obtaining transmission service from a third-party transmission provider to wheel the power from the PACW.PGE POD to another location of PGE's choosing; or 3) utilizing its own

currently held *existing* transmission rights to accept and deliver the power, including reducing its own generation or market purchases to accommodate the QF power within those rights. There may be other options as well.

It is important to keep in mind that the Blue Marmots do not have the expertise and are not responsible for managing PGE Merchant's network resources or identifying all of PGE's options. PGE is a sophisticated, vertically integrated utility that serves its load with a variety of generation resources and market purchases transferred using both network and point-to-point transmission rights. If PGE makes an effort, I am confident that PGE can figure out a least cost and least risk approach to ensuring that the Blue Marmots' net output that is delivered to the PACW.PGE POD can be accepted and used to serve load.

**Q. Please explain what you mean by PGE Merchant can request and pay for transmission upgrades.**

**A.** Rather than the Blue Marmots making a transmission service request, PGE Merchant can make a transmission service request with PGE Transmission, pay for any studies associated with the request, and then pay for transmission upgrades to increase ATC at the PACW.PGE POD. These transmission upgrades could provide significant benefits to all of PGE Transmission's customers.

**Q. Are you certain that there would be additional costs or required upgrades?**

**A.** No. PGE Merchant has not analyzed what the specific impacts would be if PGE decided to accept the Blue Marmots net output at the identified POD.[8] The Blue Marmots sought to understand in the discovery process what actions PGE Merchant has taken to verify if there is any transmission available to PGE, and if

[8] Blue Marmot/301, Moyer/21, 30, 38-41 (PGE Response to Blue Marmot DR 18, 53, 105-108).

PGE Merchant has done anything other than look at PGE Transmission's Open Access Same Time Information System.[9] PGE Merchant has not requested transmission service from PGE Transmission to wheel the Blue Marmots' net output from the PACW.PGE POD to load or another location. It is not known what, if any, the costs and nature of the additional upgrades might be. We also do not know if there are any strategies (e.g., re-dispatch) that could be put into place to mitigate the need for the upgrades in the first place.

**Q. How would the costs of these network upgrades be recovered?**

**A.** FERC's transmission policy requires transmission costs to generally be assessed in a rolled-in rate, and not as an incremental basis for upgrades. Thus, PGE Transmission function would construct the upgrades and then the costs would be charged to all of PGE Transmission's customers, including PGE Merchant. This process is clear and well accepted, unlike PGE Merchant's effective requirement that a QF become a transmission customer of the purchasing utility and pay the purchasing utility for both transmission upgrades and transmission rates. Blue Marmot's preference is for PGE Merchant to work out a solution that avoids the need for transmission upgrades altogether.

**Q. Does PGE Merchant have other options?**

**A.** Yes. PGE could seek to convert its existing point-to-point transmission rights between PACW and PGE to network integration transmission service rights by seeking to designate the Blue Marmots as network resources delivered at the PACW.PGE POD. While I understand that PGE Merchant has committed to use the point-to-point rights to facilitate imports (and exports) when participating in

[9] Blue Marmot/301, Moyer/30 (PGE Response to Blue Marmot DR 53).

the EIM [redacted]. For example, PGE could, during hours in which the Blue Marmots are generating, temporarily reduce its imports of power at the PACW.PGE POD. Doing so would impact PGE Merchant's operations only in situations where scheduled imports are *greater* than the transfer capability remaining after the Blue Marmots' net output is scheduled. Alternatively, PGE could temporarily adjust the amounts of transmission included in the EIM (again, only as required when the Blue Marmots are generating, and only in partial reductions relative to PGE's total transmission rights on the path). Both options would allow PGE to accept the Blue Marmots' net output while still allowing PGE Merchant to benefit from accessing these markets.

**Q. Has PGE Merchant taken any actions to understand how it could manage its generation and transmission resources, including backing down its own generation or re-allocating its transmission to accept the Blue Marmots net output?**

**A.** Not that the Blue Marmots are aware of. Submitting a transmission service request to PGE Transmission would be the first step and PGE does not appear to have done this.

**Q. Are you aware of other utilities which have attempted to better manage their transmission assets to incorporate more QF power?**

**A.** Yes. FERC has allowed PacifiCorp to attempt to better manage its transmission assets to accept QF power in transmission constrained areas by amending PacifiCorp's Network Operating Agreement.[10]

[redacted]

**Q. Is this situation similar to what PGE is facing?**

**A.** Yes, it is very similar. The main difference is that PacifiCorp was facing a situation related to QF facilities on its system that were located in remote, constrained areas and PGE's constraint is at a commonly used interface integrated into its system. Both areas can be considered transmission constrained in terms of a lack of long-term firm ATC.

[redacted]

[10] PacifiCorp, 151 FERC ¶ 61,170 (2015).

[redacted] In contrast, PGE is refusing to accept the Blue Marmots' net output as a network resource because of insufficient ATC and is refusing to take responsibility for the Blue Marmots' net output. Given that PGE Merchant holds significant transmission rights between the PACW and PGE transmission footprints, PGE's situation seems easier to manage because there are more options to solve the alleged "problem."

**Q. How did PacifiCorp propose to solve the issue of delivering a QF's net output from a constrained area on its own system to its load?**

**A.** PacifiCorp proposed that its transmission function be able to grant additional designated network resource status for its merchant function to enable firm delivery from QFs even *when* there is no long-term firm ATC. Commensurately, the PacifiCorp merchant function agreed to operate its portfolio of designated network resources in the affected area within system reliability limits and curtail QF power last, even if that is out of economic merit order. PacifiCorp would curtail is own non-QF generation before curtailing QF power.

**Q. Are you recommending that PGE Merchant adopt PacifiCorp's approach?**

No. The point is not that PGE Merchant must take exactly the same approach as PacifiCorp. Instead, I am referring to PacifiCorp's actions as an illustrative example that there are practical approaches that a utility like PGE can take to efficiently and effectively discharge its PURPA obligations. PGE Merchant has taken the approach of simply refusing to purchase the Blue Marmots' net output

rather than looking for creative solutions, which could include allowing PGE Transmission to grant designated network resource status to enable firm delivery from QFs, even when there is no long-term firm ATC.

While I do not agree with certain other aspects of PacifiCorp's characterizations of its PURPA obligations, creative approaches like this would be reasonable steps for PGE to take. The Commission should recognize that FERC has allowed utilities some latitude to manage their QF power, and it is reasonable to leave it up to PGE Merchant to properly manage its network resources, including QF generation, because PGE Merchant is responsible for the Blue Marmots' net output.

**Q. Could PGE manage its EIM participation in a manner that accommodates delivery of the Blue Marmots' output to PGE load?**

**A.** Yes. PGE could choose to manage its participation in the EIM in such a way that would allow it to accept the output from the Blue Marmots at the PACW.PGE POD and deliver that output to PGE load.

**Q. Please explain the options for PGE transfer of EIM energy with other EIM participants and how PGE could manage EIM participation while accepting delivery from Blue Marmot.**

**A.** Under PGE's tariff, PGE has established, and FERC has accepted, two methods for enabling transfers between itself and other EIM Entities (such as PacifiCorp). One method to enable EIM Transfers[11] is referred to as the "Interchange Rights Holder" methodology. A PGE Interchange Rights Holder is "a Transmission

[11] Under PGE's Tariff, EIM Transfers are defined as: "The transfer of real-time energy resulting from an EIM Dispatch Instruction: (1) between the PGE BAA and the CAISO BAA; (2) between the PGE BAA and an EIM Entity BAA; or (3) between the CAISO BAA and an EIM Entity BAA using transmission capacity available in the EIM."

Customer who has informed the PGE EIM Entity that it is electing to make reserved firm transmission capacity available for EIM Transfers without compensation."[12] This methodology allows a PGE Interchange Rights Holder to "donate" its reserved transmission capacity to the EIM. For instance, to facilitate EIM Transfers between PacifiCorp and the CAISO, PacifiCorp Merchant donates some of its transmission rights on the California-Oregon Intertie. PGE indicated it plans to use the Interchange Rights Holder methodology for EIM Transfers on two paths that will enable energy exchanges between PGE and the CAISO.[13]

Notably, PGE did not indicate that it planned to use the PGE Interchange Rights Holder method for EIM Transfer to and from PacifiCorp. Instead, for the transfer of EIM energy to and from PacifiCorp West, PGE's FERC filing stated that PGE will utilize the ATC method for EIM Transfers at the direct interface between the PGE Balancing Authority Area ("BAA") and the PacifiCorp West BAA.[14] The ATC method allows for EIM Transfers based on the ATC that PGE calculates to exist prior to the operating hour. The ATC calculation for EIM Transfers takes place at approximately 40 minutes prior to the operating hour and takes into account all scheduled uses of the relevant path that have been submitted. Note that 40 minutes prior to the operating hour will occur after the

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12 Portland General Electric, *Pro Forma Open Access Transmission* Tariff; updated May 1, 2017 at 1.78.

13 Portland General Electric Company, "*Amendments to the Portland General Electric Company Open Access Transmission Tariff to Facilitate Energy into the Energy Imbalance Market*," FERC Docket No. ER17-1075-000, filed March 1, 2017, at II.E.

14 Id.

Blue Marmots have scheduled their output, giving PGE the information it would need to release any unused transmission rights into the EIM.

The remaining ATC on the path is then communicated to the EIM operator (the CAISO) and the EIM is optimized based on the transmission capacity that the EIM Entity (in this case PGE) has indicated to be available. Under this method, there is no requirement for transmission service to be donated by a PGE Interchange Rights Holder and PGE Merchant has no obligation to hold long-term firm transmission capacity on the path to enable its EIM participation. Therefore, one option available to PGE is to schedule the anticipated output from the Blue Marmot on the PACW.PGE to PGE path along with other uses of the path, and then utilize the remaining transmission capacity on the path to enable EIM Transfers, consistent with the ATC method for EIM Transfers.

**Q. Would this approach be consistent with the approaches of other EIM Entities?**

**A.** Yes. Most other EIM Entities participate in the EIM primarily using the ATC method. To the best of my knowledge, these EIM Entities continue to enable other uses of their transmission system prior to the EIM time horizon and no other EIM Entity's merchant function has procured new transmission capacity that is purely dedicated to enabling EIM Transfers.

**Q. Is there any reason PGE couldn't manage its EIM participation in the manner described above, which would allow delivery of the Blue Marmots' output to PGE load?**

**A.** Not that I am aware of. In fact, the method of accepting Blue Marmot's output and conducting EIM Transfers is consistent with the manner in which PGE told FERC it would be effectuating EIM Transfers between its own BAA and the

PACW BAA. When PGE sought, and subsequently received, Market Based Rate Authority in the EIM, PGE represented to FERC that its merchant function would provide at least 200 megawatts ("MW") of transmission to the EIM in all intervals.[15] Therefore, should PGE choose this option for accepting the Blue Marmots' net output, PGE would likely need to make a Market Based Rate Authority change in status filing at FERC. The change in status filing, and any resulting decisions, should not prevent PGE from managing its EIM participation in a manner that allows for delivery of the Blue Marmots output.

**Q. Are you recommending that PGE manage its EIM participation to allow delivery of the Blue Marmots' output to PGE load?**

**A.** No. I am not familiar enough with all of the details of PGE's EIM participation and system operations to know whether this is the appropriate action for PGE to take to accept the Blue Marmots' net output. I am simply pointing out that PGE has a variety of options available to accept the Blue Marmots' net output and that, should PGE choose this option, it would be consistent with PGE's tariff, its representations to FERC in filing for approval of its EIM tariff modifications, and with the approaches of other EIM Entities.

## III. AVOIDED COST RATES

**Q. Please summarize this portion of your testimony.**

**A.** The avoided cost rate at the time a QF enters into a contract or LEO cannot change or be altered by the utility. Since the Blue Marmots have legally enforceable obligations at the rates that were in effect in April 2017, PGE cannot now change the Blue Marmots avoided cost rate. This change to the Blue

[15] Blue Marmot/301, Moyer/1-20 (PGE Response to Blue Marmot DR 2, Appendix A).

Marmots' avoided cost rates cannot be in the form of an actual change to the contract price, nor can it be an effectual change resulting from incremental transmission costs.

**Q. What is your understanding of how PGE's avoided cost rates are set?**

**A.** While I am generally familiar with and have reviewed PGE's avoided cost rate workpapers, I am not an expert on all the details regarding the calculation of Oregon avoided cost rates. There are a variety of different ways in which avoided cost rates are calculated around the country,[16] and Oregon uses a form of the "proxy" methodology for QFs under the size threshold for standard rates.[17] At the time the Blue Marmots obtained their LEOs, the standard rate eligibility cap was 10 MW for solar generation selling power to PGE. These standard rates are intended to reflect the utility's full avoided costs, but are administratively determined by the OPUC. The standard rates are adjusted to be based on the generic resource characteristics of each QF technology type, which means that a solar QF's rates reflect the different peak capacity credit versus a baseload QF with a different generation profile. Thus, there are generic resource type adjustments, but there are no project specific adjustments to the avoided cost rate calculation.

**Q. Can PGE adjust an off-system QF's avoided cost rates to reflect the costs of transmission on its system?**

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[16] Carolyn Elefant, REVIVING PURPA'S PURPOSE: The Limits of Existing State Avoided Cost Ratemaking Methodologies In Supporting Alternative Energy Development and A Proposed Path for Reform, First Impression – Last resort (Oct. 2011), http://lawofficesofcarolynelefant.com/reports-publications/. (explaining basic methodologies for calculating avoided cost rates).

[17] Re OPUC Investigation Into Qualifying Facility Contracting and Pricing, Docket No. UM 1610, Order No. 14-058 at 8-14 (Feb. 24, 2014).

**A.** [redacted]

FERC's regulations also state that the rate "shall not include any charges for transmission."[18] [redacted]

**Q. Is PGE seeking to impose a transmission charge on the Blue Marmots and thereby lower the Blue Marmots' *effective* avoided cost rates?**

**A.** Yes. PGE is not explicitly seeking to change the specific rate that is paid to the Blue Marmots; however, PGE is requiring that before it will accept the Blue Marmots' net output, they must purchase transmission from PGE or another third-party, or fund transmission upgrades. This is a de facto transmission charge which ultimately lowers the avoided cost rate paid to the Blue Marmots.

[redacted]

[18] 18 CFR 292.303(d).

[redacted]

## IV. DISCRIMINATION

**Q. Please summarize this portion of your testimony.**

**A.** PGE is discriminating against the Blue Marmots because it has refused to execute the Blue Marmots' PPAs while executing contracts with other QFs that are planning to deliver their net output at the PACW.PGE POD. PGE has also discriminated in favor of itself over the Blue Marmots by claiming that there is no ATC to accept their power, but then obtaining ATC that becomes available at the PACW.PGE POD for other non-QF purposes. This is troubling because PGE appears to be procuring transmission solely for its own purposes when it should be seeking to arrange for transmission service to be used to deliver power from QFs that have LEOs.

**Q. Is PGE allowed to discriminate against similarly situated QFs?**

**A.** No. Again, while I am not a lawyer, my understanding is that PGE cannot unduly discriminate between different QFs.

**Q. Is PGE discriminating against the Blue Marmots?**

**A.** Yes, PGE is discriminating or treating the Blue Marmots differently from other similarly situated QFs. PGE has entered into at least three off-system QF contracts that will deliver to the PACW.PGE POD.[19] These include the Airport Solar PPA, which is also planned to interconnect to PacifiCorp and deliver its net output to PGE via PacifiCorp's system. The Airport Solar PPA was executed a couple weeks before PGE informed the Blue Marmots that it would not execute PPAs but after PGE had provided executable PPAs and after Blue Marmot had executed these PPAs.[20]

**Q. What should PGE have done?**

**A.** PGE should have executed the Blue Marmots' contracts, just as it had already done for the other off-system QFs delivering at the PACW.PGE POD. If PGE has any concerns regarding the specific transmission arrangements, then it should not use those as an excuse not to execute these contracts and should have handled all of the tendered PPAs similarly. [redacted]

**Q. Are you taking the position that PGE should now refuse to accept the net output of the other off-system QFs that it has already agreed to accept deliveries from at the PACW.PGE POD?**

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19 Blue Marmot/301, Moyer/25 (PGE Response to Blue Marmot DR 28).

20 Re PGE Information Filing of Qualifying Facility Contracts or Summaries per OAR 860-029-0020(1), Docket No. RE 143, PGE's Summary of Qualified Facility Agreements (June 21, 2017) (PGE summary of Airport Solar PPA with an execution date of April 3, 2017) Available at: http://edocs.puc.state.or.us/efdocs/HAQ/re143haq165856.pdf

**A.** No. PGE should not remedy its discriminatory treatment against the Blue Marmots by refusing to accept the net output of any off-system QFs that have entered into contracts or otherwise have established legally enforceable obligations.[21] Instead, PGE should accept responsibility for managing at least the power of all the QFs that have entered into contracts or obtained legally enforceable obligations.

**Q. Is PGE treating the Blue Marmots as QFs that have contracts or legally enforceable obligations?**

**A.** No. PGE has vaguely stated that "All QFs that have requested PPAs from PGE and that have requested to deliver at PACW.PGE will be given the same options as Blue Marmot."[22] This statement only applies to QF requests, and not to QFs that have already entered into contracts. Thus, PGE appears to be treating Blue Marmot as a QF that has merely requested a PPA from PGE, rather than as a QF that has executed a contract or established a legally enforceable obligation.

**Q. Do we know what PGE is planning to do regarding QFs that have entered into fully executed contracts with PGE?**

**A.** No. The Blue Marmots sought to obtain this information in the discovery process, and PGE has not determined how to proceed.[23] For example, the Blue Marmots sought to obtain PGE's position on what it would do with any additional

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[21] As noted above, PGE is obligated to purchase the net output of all off-system QFs and manage their power regardless of whether they have entered into a contract or not. There are additional reasons why PGE cannot refuse to purchase the net output of QFs like the Blue Marmots which have legally enforceable obligations or contracts.

[22] Blue Marmot/301, Moyer/23 (PGE Response to Blue Marmot DR 23).

[23] Blue Marmot/301, Moyer/22-24 (PGE Response to Blue Marmot DR 22-24).

ATC that is made available at the PACW.PGE POD, whether PGE would use that ATC for other off-system QFs, and whether there would be any priority between off-system QFs that are requesting to deliver at the PACW.PGE POD.[24] PGE claims that it "is in the process of developing a policy to address" these circumstances, that it has not yet made a determination about whether it can even accept deliveries, or how deliveries will be handled.[25]

**Q. What does PGE mean by stating that it "is reviewing off-system QFs that have entered PPAs and has not made a determination about whether it can accept deliveries from each of them at this time" or that "PGE is evaluating how deliveries anticipated to be made from [the projects that have executed contracts] to the PACW.PGE POD will be handled"?**

**A.** We do not know. PGE's statement is inconsistent with its other positions in this case. On one hand, PGE claims that it cannot accept any power deliveries at the PACW.PGE POD because of insufficient ATC. However, on the other hand, PGE has not made a determination about how it will handle deliveries or whether it can even accept deliveries at the same location that has insufficient ATC from those QFs that have already entered into contracts.

There are over 67 MW of off-system QFs that have already entered into contracts with PGE to deliver at the PACW.PGE POD, and PGE appears to be holding open the door to accept some or all of their net output at this POD.[26] PGE also appears to be taking the position that the time a QF enters into a contract somehow impacts whether PGE has to accept delivery at the PACW.PGE POD.

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[24] Blue Marmot/301, Moyer/24 (PGE Response to Blue Marmot DR 24).

[25] Blue Marmot/301, Moyer/23-24, 25, 34-35 (PGE Response to Blue Marmot DR 23-24, 28, 91, 92).

[26] The Airport Solar QF (47.25 MW), OM Power (10 MW), and Obsidian Renewables (10 MW).

**Q. Separate from its obligations to individual QFs, is PGE discriminating against the Blue Marmots in favor of other transmission uses?**

**A.** It appears so. Additional ATC became available after PGE informed the Blue Marmots that PGE would not purchase their net output due to limited ATC.[27] PGE could have reserved or obtained this to accept at least a portion of the Blue Marmots' net output or otherwise meet its PURPA obligations, but PGE elected to reserve this for itself as point-to-point transmission. PGE also could have informed the Blue Marmots that this ATC had become available. Instead PGE appeared to act as if it had no knowledge of its obligations to accept the Blue Marmots' output on that same transmission path.

## V. CONCLUSION

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

**A.** Yes.

[27] Blue Marmot/301, Moyer/29-32 (PGE Response to Blue Marmot DR 52-55).