**Portland General Electric Company**
*121 SW Salmon Street • Portland, Oregon 97204*
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August 17, 2018

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Filing Center
Public Utility Commission of Oregon
201 High Street, SE Ste. 100
Salem, OR 97301

**RE: UM 1953 – Portland General Electric Supplemental Green Tariff Filing**

Attention Filing Center:

Portland General Electric hereby submits supplemental testimony and accompanying exhibits to provide additional information regarding PGE's proposed green tariff program. Enclosed for filing in the above referenced matter please find the following:

- **PGE/300 – Supplemental Testimony of Brett Sims and Jay Tinker**
  - **PGE/301 – Workpaper showing illustrative risk adjustment calculation**
  - **PGE/302 – Workpaper showing illustrative administrative cost adjustment**
  - **PGE/303 – Draft subscriber agreement**

If you have any questions, please contact Jacob Goodspeed at (503) 464-7806. Please direct all formal correspondence and requests to the following email address: pge.opuc.filings@pgn.com.

Sincerely,

Jay Tinker

Jay Tinker
Director, Regulatory Policy and Affairs

**UM 1953 / PGE / 300**
**Sims – Tinker**

# BEFORE THE PUBLIC UTILITY COMMISSION

# OF THE STATE OF OREGON

# UM 1953

## PORTLAND GENERAL ELECTRIC COMPANY

## Supplemental Testimony and Exhibits of

***Brett Sims***
***Jay Tinker***

August 17, 2018

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# I. Introduction and Summary

**Q. Please state your names and current positions.**

A. My name is Brett Sims, I am the Director of Commercial Strategy, Integration, and Planning for Portland General Electric Company (PGE or Company).

My name is Jay Tinker, I am the Director of Regulatory Policy and Affairs at PGE.

Our qualifications are listed in PGE/200.

**Q. What is the purpose of your testimony?**

A. The purpose of this testimony is to clarify and supplement certain aspects of PGE's original application and opening testimony.[1] This testimony will provide additional information in the areas of:

- Proposed calculation of a risk adjustment;
- Proposed calculation of an administrative charge;
- Proposed treatment of transmission and/or integration costs in the green tariff;
- Draft subscriber agreement;
- Treatment of capcity benefit relative to Oregon's direct access program; and
- PGE's willingness to offer a green tariff product with a floating credit

This supplemental testimony is provided at the request of parties to this docket, and is intended to offer additional information in the interest of aiding parties to Docket No. UM 1953 in their analysis of PGE's proposed green tariff program and their associated testimony to be filed on September 5.

[1] PGE/100 and PGE/200, filed in Docket No. UM 1690

## II. Supplemental Information

**Q. Please provide additional information and/or clarification regarding PGE's proposed calculation of a risk adjustment as part of a green tariff offering.**

A. Risk is introduced to PGE shareholders when the length of the contract from the renewable resource (PPA) is longer than an offered green tariff subscriber term. To send appropriate economic signals, subscribers that sign a contract less than the term of the PPA will incur a risk adjustment. This risk adjustment is expressed as a percentage of the PPA price and would be added to the subscriber cost only for those customers with a shorter-term contract than the PPA contract length.

The adjustment amount will be impacted by assumptions such as PPA term, energy credit, capacity credit and resubscription. While those assumptions are still uncertain, PGE has estimated the risk premium to be between 1% and 5% of the PPA price. These percentages are in line with similar utility offerings throughout the country. An illustrative example is attached as Exhibit 301 that shows potential pricing scenarios and the resulting impact of the risk adjustment on subscriber premiums.

The adjustment will vary by contract length and will be formulaic. It will not be part of the customer contract negotiation.

**Q. Please provide illustrative workpapers and a narrative description of how PGE intends to calculate the proposed administration charge, originally described in PGE/200, Sims-Tinker page 16? Would an administration charge include embedded costs from existing systems?**

A. PGE's proposed administrative charge would encompass all incremental costs that PGE incurs in offering and maintaining the green tariff product. These costs are expected to include upfront and ongoing annual costs for:

- Billing adjustments: via PGE specialized billing services or an integrated billing solution;
- PGE Information Technology (IT) support that may be required to configure the system and to construct the billing mechanism;
- Costs associated with resource acquisition and contracting;
- Costs associated with subscriber contracting;
- Program marketing and communications;
- Product management, including primary customer contact, program certification, billing resolution, and/or subscriber communications.

PGE Exhbit 302 provides an illustrative workpaper showing how the administrative charge may be calculated. Upfront and ongoing annual costs will be levelized and recovered from subscribers on a MWh basis. As green tariff subscribers will remain on cost of service and will continue to pay their full cost of service rate, PGE does not propose to allocate non-incremental costs of legacy systems to the administrative charge.

**Q. Please describe how PGE plans to treat transmission and/or integration costs within this program.**

A. PGE's intent is to procure a power purchase agreement (PPA) that includes transmission and integration as part of the delivered product.

PGE does not propose the use of cost-of-service generation resources to integrate the proposed green tariff resource, despite the fact that green tariff subscribers remain full cost of service customers and will continue to pay for all cost of service generation resources.

**Q. Please provide a draft subscriber agreement.**

A. PGE Exhibit 303 provides a draft agreement indicative of the type of agreement that PGE may enter into with green tariff subscribers.

**Q. Has PGE considered its ability to offer this product with a floating credit?**

A. Yes. PGE is willing to offer this product with a floating credit structure. However, PGE notes that there appeared to be preemptive opposition to this construct in Commission Staff's opening testimony.[2] PGE looks forward to continuing to work with parties to this docket to explore the ability for the Company to offer a floating-credit green tariff.

**Q. From a capacity credit perspective, please provide a comparison of the "generation addition" capacity benefit proposed in the green tariff with the hypothetical "beneficial loss of load" benefit of direct access. If PGE does not view these events as similarly beneficial to customers, please explain why not.**

A. PGE has proposed a capacity credit for green tariff subscribers because these subscribers will continue paying cost-of-service prices, including Annual Update Tariff (AUT) and Net Variable Power Costs (NVPC). The subscribers, in addition to the paying cost of service prices, then are responsible for bringing forward incremental renewable resources which provide additional capacity and energy to PGE's grid. The additional resource will in turn decrease the identified capacity and energy need for other customers, and serves to defer and/or lessen the need during a deficiency period.

[2] Staff/100, Kaufman/6 at 1; Staff/100, Kaufman/16 at 6

While customers electing to be served by an Electricity Service Supplier (ESS) receive a scheduled amount of energy from a non-utility load serving entity, ESSs serving Oregon customers do not currently have resource adequacy requirements, do not file Integrated Resource Plans (IRPs), and in some cases do not own any physical infrastructure at all. If there is not sufficient capacity provided by the ESS to meet customer metered load – whether because of inaccurate scheduling, a lack of a capacity market in the region, or a lack of resource adequacy/planning requirements for ESSs – PGE's Balancing Authority must provide the capacity and energy to meet the direct access customer's metered needs and may well do so using cost of service resources. The ESS is not committing incremental resources for PGE's Balancing Authority to use to meet system energy and capacity needs, and in the absence of resource planning standards for ESSs, the capacity of departing direct access customers should not be considered "freed up."

**Q. Can you provide examples from other states regarding this issue?**

A. Yes. In 2005, the California Public Utility Commission passed Assembly Bill 380, which required resource adequacy standards. Senate Bill 350 further required load serving entities to submit IRPs. Further, Senate Bill 1136, currently pending in California, would require the California Public Utility Commission to ensure that all load serving entities (including investor-owned utilities (IOUs), ESSs, or community choice aggregator (CCAs)) meet specific resource adequacy requirements and to maintain physical generating capacity adequate to meet its load requirements, including peak demand and planning and operating reserves.

In contrast to what is being proposed in California, in Oregon, only the IOUs engage in long-term resource planning. This process allows PGE to engage in long-term planning that assesses the Company's ability to reliably serve load and supply required operating reserves. While long-term direct access load is not considered in IRP planning, PGE's cost-of-service system remains the provider of last resort for long-term direct access customers. PGE must also balance any scheduling deviations by ESSs. Due to this continued reliance on PGE's system, providing a capacity credit to customers served by an ESS would potentially shift capacity costs to non-participating customers.

PGE does not view the "generation addition" benefit and the hypothetical "beneficial loss of load" as providing equivalent benefit.

**Q. If the Commission were persuaded by the arguments of other parties suggesting an equivalence between incremental generation resources and loss of load, would PGE make an alternative recommendation?**

A. Yes. If the Commission does not agree with PGE, we urge the Commission to order the removal of the capacity credit in the green tariff product or to otherwise direct PGE to withdraw the request to use a capacity credit during the deficiency period as an alternative.

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

A. Yes.

**LARGE NONRESIDENTIAL GREEN ENERGY RIDER**
**SERVICE AGREEMENT**

THIS **LARGE NONRESIDENTIAL GREEN ENERGY RIDER SERVICE AGREEMENT** ("Service Agreement"), dated as of the_____________, is made and entered into by and between________________(the "Subscriber") and Portland General Electric Company (the "Company"), for service under the Company's Electric Tariff Schedule ______.

This Service Agreement is based on Subscriber's election to purchase a subscription share of a new renewable facility pursuant to PGE's tariff Schedule ____ - Large Nonresidential Green Tariff Rider. The terms and conditions of Schedule ____ - Large Nonresidential Green Tariff Rider (the "Schedule") of PGE's Retail Tariff (the "Tariff"), as filed and approved by the Oregon Public Utility Commission ("OPUC"), apply to this Agreement. A copy of PGE's Electric Tariff, including Schedule ___ is available on the Company's website at https://www.portlandgeneral.com/our-company/regulatory-documents/tariff. This Agreement is intended to supplement the Schedule and shall not replace the Schedule. Terms defined in Schedule ______ and in the General Rules and Provisions (Schedule 80) of the Tariff for electric service shall have the same meanings where used in this Service Agreement.

Pursuant to the terms and conditions of the Tariff and Schedule, Subscriber and PGE agree to the following:

1. **Defined Resource.** The Company shall procure bundled renewable energy on the Subscriber's behalf from _________________________________ (the "Resource"), a new renewable facility as defined in the Schedule.
2. **Conditions Precedent.** The obligations of the parties under this Agreement are subject to the following conditions precedent: (a) OPUC approval of the Schedule; (b) PGE executing a power purchase agreement to purchase energy generated by the Resource; and (c) the Resource achieving commercial operation. In the event these conditions precedent have not been satisfied on or before __[date]__, either party may terminate this Agreement by providing five (5) days prior notice of termination to the other Party. In the event Subscriber terminates this Agreement pursuant to this Section 2, Subscriber shall not be obligated to pay an early termination fee as set forth below in Section 7.
3. **Rates and Billing.** Subscriber shall pay PGE in accordance with the Pricing Structure section of the Schedule and as more particularly set forth in Attachment A.
4. **Renewable Energy Credits.** The renewable energy certificates (RECs) associated with the generation output of the Resource shall be retired on behalf of the Subscriber in WREGIS and shall not be used for any other purposes during the term of this Service Agreement.
5. **Term.** This Service Agreement becomes effective on the Effective Date and shall continue in effect for a term of __________ (____) years after the Effective Date (the "Term").
6. **Early Termination Fee**. Subscribers may elect to terminate this Service Agreement prior to the Termination Date with 90 days' notice to the Company. If Subscriber

elects to terminate this Service Agreement prior to the expiration of the Term, Subscriber shall pay PGE for the net cost of the remaining Renewable Energy that was to be delivered to the Subscriber for the remainder of the Term. This amount will be based on the net present value of:

a. The duration of the remaining Term
b. The contracted annual energy amounts set forth in Attachment B;
c. The energy and capacity credit set forth in Attachment C.

7. **Creditworthiness and Security**. Subscriber agrees that the Company may verify Subscriber's creditworthiness at any time, which may include, but is not limited to, requesting audited financial statements or other documentation the Company deems necessary for determining the Subscriber's creditworthiness for this service.

   Based on its credit review of Subscriber, the Company may, at its option, require security to ensure the Subscriber meets the obligations set forth under this Service Agreement. Such security may include, at the Company's option:

   a. A surety bond issued by an issuer and in a form, substance, and amount satisfactory to Company;
   b. A letter of credit issued by an issuer and in a form, substance, and amount satisfactory to Company; or
   c. A cash deposit in an amount satisfactory to Company.

8. **Purchase Not Required.** Subscriber is not required to purchase a subscription share under the Schedule in order to continue to receive its current electricity service from the Company. Subscriber may purchase similar products and services from other providers.

9. **Use of Customer Name**. Subscriber agrees that the Company may use the Subscriber's name, noted above, in promotional material, including but not limited to print advertising, for PGE's renewable energy programs.

10. **Governing Law**. This Service Agreement will be governed by and interpreted, construed and enforced in accordance with the laws of the State of Oregon.

11. **Successors and Assigns**. Subscriber may not assign this Agreement without the written consent of the Company, which such consent shall not be unreasonably withheld. This Service Agreement shall apply to all permitted successors and assigns of Subscriber.

12. **Waivers; Modifications**. No waiver of any provision of this Service Agreement shall be valid unless made in writing signed by the waiving party, and no such waiver shall be deemed a waiver of compliance with any other provision of this Service Agreement. This Service Agreement is subject to all applicable Tariff revisions and lawful orders of the OPUC. Other than modifications that result in revisions approved by the OPUC in the applicable Tariff provisions referenced and incorporated herein, no modification of this Agreement shall be valid unless made in writing and signed by both parties.

13. **Entire Agreement**. This Service Agreement, along with the underlying Schedule and Tariff, supersedes and replaces any other agreements between the parties relating to the subject matter herein and shall constitute the entire agreement between the

parties relating to the subject matter herein.

IN WITNESS WHEREOF, the Parties, by their duly authorized representatives, have executed this Agreement as of the date first written above.

| SUBSCRIBER | PORTLAND GENERAL ELECTRIC COMPANY |
|---|---|
| By: ______________________ | By: ______________________ |
| Name: ____________________ | Name: ____________________ |
| Title: _____________________ | Title: _____________________ |
| Date:______________________ | Date:______________________ |

**Attachment A**
**Block Pricing Structure**

[**NOTE:** This information will be provided upon execution of a PPA.]

**Attachment B**
**Contracted Annual Energy Amounts**

[**NOTE:** This information will be provided upon execution of a PPA.]

## Attachment C
## Energy and Capacity Credits

[**NOTE:** This information will be provided upon execution of a PPA.]

| Calendar Year | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|---|---|---|---|
| kWh Purchased | | | | | | | | | | |
| Rate per kWh | | | | | | | | | | |
| Energy Credit per kWh | | | | | | | | | | |
| Capacity Credit per kWh | | | | | | | | | | |
| | | | | | | | | | | |
| Calendar Year | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 |
| kWh Purchased | | | | | | | | | | |
| Rate per kWh | | | | | | | | | | |
| Energy Credit per kWh | | | | | | | | | | |
| Capacity Credit per kWh | | | | | | | | | | |

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| | **2019** | **2020** | **2021** | **2022** | **2023** |
| Contracting | 20,000 | 20,410 | 8,000 | 2,000 | 2,041 |
| Billing/IT | 20,000 | 20,410 | 5,000 | 5,102 | 5,207 |
| Marketing + communications | 10,000 | 10,205 | 5,000 | 5,102 | 5,207 |
| Product Management | 100,000 | 102,049 | 50,000 | 20,000 | 20,410 |
| Total budget | 150,000 | 153,073 | 68,000 | 32,205 | 32,865 |
| Upfront costs: | 303,073 | | | | |
| | | | | | |
| Amortized upfront costs | | | 20,205 | 20,205 | 20,205 |
| Annual | | | 68,000 | 32,205 | 32,865 |
| Sum | | | 88,205 | 52,410 | 53,069 |
| NPV | $514,452 | | | | |
| Levelized cost | $54,854 | | | | |
| MWh | $0.52 | | | | |
| MWh | 105,000 | | | | |

**Illustrative administr

| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|
| **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** |
| 2,083 | 2,125 | 2,169 | 2,213 | 2,259 | 2,305 | 2,352 | 2,400 | 2,450 |
| 5,314 | 5,422 | 5,534 | 5,647 | 5,763 | 5,881 | 6,001 | 6,124 | 6,250 |
| 5,314 | 5,422 | 5,534 | 5,647 | 5,763 | 5,881 | 6,001 | 6,124 | 6,250 |
| 20,828 | 21,255 | 21,690 | 22,134 | 22,588 | 23,051 | 23,523 | 5,000 | 5,102 |
| 33,538 | 34,225 | 34,926 | 35,642 | 36,372 | 37,117 | 37,877 | 19,649 | 20,051 |
| | | | | | | | | |
| 20,205 | 20,205 | 20,205 | 20,205 | 20,205 | 20,205 | 20,205 | 20,205 | 20,205 |
| 33,538 | 34,225 | 34,926 | 35,642 | 36,372 | 37,117 | 37,877 | 19,649 | 20,051 |
| 53,743 | 54,430 | 55,131 | 55,847 | 56,577 | 57,322 | 58,082 | 39,854 | 40,256 |

ative cost details for PGE proposed green tariff**

| 15 | 16 | 17 |
|---|---|---|
| **2033** | **2034** | **2035** |
| 2,500 | 2,551 | 2,603 |
| 6,378 | 6,508 | 6,642 |
| 6,378 | 6,508 | 6,642 |
| 5,207 | 5,314 | 5,422 |
| 20,462 | 20,881 | 21,309 |
| | | |
| 20,205 | 20,205 | 20,205 |
| 20,462 | 20,881 | 21,309 |
| 40,667 | 41,086 | 41,514 |

| | Scenario 1 | Scenario 2 | |
|---|---|---|---|
| PPA cost | $42.00 | $49.00 | |
| Administrative Charge | $1.00 | $1.00 | |
| Energy credit | -$31.00 | -$37.00 | |
| Capacity credit | -$7.00 | -$3.00 | |
| Subscriber premium | $5.00 | $10.00 | |
| | | | |
| 1% risk adjustment (on PPA) | $0.42 | $0.49 | 1% |
| Final subscriber cost | $5.42 | $10.49 | |
| | | | |
| 3% risk adjustment (on PPA) | $1.26 | $1.47 | 3% |
| Final subscriber cost | $6.26 | $11.47 | |
| | | | |
| 5% risk adjustment (on PPA) | $2.10 | $2.45 | 5% |
| Final subscriber cost | $7.10 | $12.45 | |

**Scenarios are indicative of the potential costs and credits

****All values per MWh****

that may exist for a green tariff program. This workbook is intended to show how the risk adjustment would apply y to the net cost of the product.**