



Portland General Electric
121 SW Salmon Street · Portland, Ore. 97204

November 18, 2022

Public Utility Commission of Oregon
Attn: Filing Center
201 High Street, S.E.
P.O. Box 1088
Salem, OR 97308-1088

RE: UM 1953 PGE's Green Energy Affinity Rider, Schedule 55, Phase II, CSO Option, Rate and Credit Calculations, Submitted in Compliance with Order No. 21-091

Portland General Electric (PGE) submits these confidential work papers pursuant to Schedule 55 adopted by Public Utility Commission of Oregon (OPUC or Commission) Order No. 21-091 (Docket No. UM 1953). PGE's tariff specifically directs PGE to submit rate and credit calculations to OPUC Staff for review. Confidential Attachment A provides the work paper demonstrating the rate and credit calculations that were performed in accordance with the filed tariff Schedule 55 using the IRP methodologies specified in the UM 1953 Phase II proceeding and Commission Order No. 21-091. The work paper will be submitted to puc.workpapers@puc.oregon.gov.

The attached calculations are related to the capacity available under the 200 MW Phase II cap, of which 100 MW is reserved for the Customer Supplied Option (CSO). The attached calculations address 60 MW, of the 100 MW available for the CSO portion of the Phase II cap. The remaining capacity will be addressed via a second filing within this docket when an additional resource has been identified and negotiated. These calculations remain consistent with the credit methodology applied to the previous subscriptions under Phase I as filed on January 22, 2021 in Docket No. UM 1953 and approved under Order No. 21-053, but are updated to reflect the different underlying generating resource.

In its Phase I testimony PGE committed to bring the completed customer agreements before Staff in a compliance filing. Highly Confidential Attachment B provides the customer-executed agreement for the CSO portion.

Attachments A and B contain highly confidential information and are subject to Modified Protective Order No. 20-302. They are being submitted electronically using an encrypted file.

PGE acknowledges that the highly confidentiality identification in Attachment A as it relates to the disclosure of energy and capacity value is departing from Chief Administrative Law Judge Nolan Moser's ruling dated March 19, 2021. PGE's confidentiality treatment departs from the previous ruling due to two issues related to new circumstance. The first issue is that the energy curve used to value the resource is the current curve being used in PGE 2021 All-Source Request for Proposal (RFP) in UM 2166. Modified Protective Order 22-025 was issued in the RFP docket to restrict access to information that is within the scope of ORCP 36(C)(1), is not publicly available, and is not adequately protected by a general protective order. Secondly, PGE is under active negotiations with RFP participants, as well as for resources under the remaining capacity available under Phase II for GFI. The disclosure of energy and capacity values during *active* negotiations can disclose highly sensitive commercial information relating to CSO GFI participant's willingness to pay, which in some instances could lead to increased costs for customers. During the course of PGE's previous Phase I filings, PGE did not have other active negotiations for which this information could harm its competitive position or customers.

PGE respectfully requests that the OPUC Staff review this filing and submit acknowledgement of PGE's compliance during the December 13, 2022 public meeting.

Please direct questions to Korissa Mehdikhan at korissa.mehdikhan@pgn.com. Please direct all formal correspondence and requests to the following email address pgc.opuc.filings@pgn.com.

Sincerely,

\s\ Robert Macfarlane

Robert Macfarlane
Manager, Pricing and Tariffs

Enclosures

UM 1953
Green Energy Affinity Rider, Schedule 55
Phase II, CSO Option, Rate and Credit Calculations
Submitted in Compliance with Order No. 21-091

Attachments A & B

Portions are Highly Confidential
Submitted under Modified Protective Order No. 20-302

Attachments A (Partially Redacted)

Attachment B (Fully Redacted)

BEGIN HIGHLY CONFIDENTIAL

| Subscriber Cost | |
|----------------------------|---------|
| PPA Cost (\$/MWh) | |
| PGE admin (\$/MWh) | \$0.07 |
| Energy Credit (\$/MWh) | |
| Capacity Credit (\$/MWh) | |
| Net Cost Before Risk Adder | |
| Subscriber Cost w/o Adder | \$ 0.07 |

END HIGHLY CONFIDENTIAL

| Assumptions | |
|-----------------------------------|---------------------------|
| Resource | GFI - Phase 2 CSO |
| Project Size (MW) | 60 |
| ELCC | 8.33% |
| Term Length (years) | 20 |
| Start Year | 2024 |
| Start Date | 1/1/2024 |
| End Date | 12/31/2043 |
| PPA Cost | BEGIN HIGHLY CONFIDENTIAL |
| Inflation | 2.18% |
| After Tax Nominal Cost of Capital | 6.48% |
| After Tax Real Cost of Capital | 4.21% |
| Net Cost of Capacity (\$/kW-yr) | \$146.80 |
| Degradation | 0.50% |

END HIGHLY CONFIDENTIAL

BEGIN HIGHLY CONFIDENTIAL

| Cost & Credit Analysis | | | | | | | |
|------------------------|--------|---------|----------|----------------|--------------|----------------|---------------------|
| Year | Year # | MWh's | PPA Cost | PGE Admin Cost | Energy Value | Capacity Value | Net Cost/ (Benefit) |
| 2024 | 1 | 149,158 | | 10,358 | | | |
| 2025 | 2 | 148,162 | | 10,289 | | | |
| 2026 | 3 | 147,421 | | 10,238 | | | |
| 2027 | 4 | 146,684 | | 10,186 | | | |
| 2028 | 5 | 146,197 | | 10,153 | | | |
| 2029 | 6 | 145,220 | | 10,085 | | | |
| 2030 | 7 | 144,494 | | 10,034 | | | |
| 2031 | 8 | 143,772 | | 9,984 | | | |
| 2032 | 9 | 143,295 | | 9,951 | | | |
| 2033 | 10 | 142,338 | | 9,885 | | | |
| 2034 | 11 | 141,626 | | 9,835 | | | |
| 2035 | 12 | 140,918 | | 9,786 | | | |
| 2036 | 13 | 140,451 | | 9,754 | | | |
| 2037 | 14 | 139,512 | | 9,688 | | | |
| 2038 | 15 | 138,815 | | 9,640 | | | |
| 2039 | 16 | 138,121 | | 9,592 | | | |
| 2040 | 17 | 137,663 | | 9,560 | | | |
| 2041 | 18 | 136,743 | | 9,496 | | | |
| 2042 | 19 | 136,059 | | 9,449 | | | |
| 2043 | 20 | 135,379 | | 9,401 | | | |
| 0 | 0 | - | | - | | | |
| NPV | | | | \$110,012.92 | | | |
| Average | | 142,101 | | | | | |
| LCOE (\$/MWh) | | | | 0.07 | | | |

END HIGHLY CONFIDENTIAL

END HIGHLY CONFIDENTIAL

Net Cost of Capacity
DSP
2021\$

| | |
|----------|----------------|
| Resource | 6-Hour Battery |
| COD | 2025 |

| | \$/kW-yr | |
|----------------------|----------|---------|
| FixedCosts | \$ | 163.97 |
| VariableCosts | \$ | - |
| IntegrationCosts | \$ | - |
| EnergyValue | \$ | (10.98) |
| FlexibilityValue | \$ | (29.43) |
| ELCC | | 86% |
| | | |
| Net Cost of Capacity | \$ | 146.80 |

2022(\$)

Effective Load Carrying Capability (ELCC)

| | Capacity shortage | Capacity Contribution | ELCC |
|--------------------------------------|-------------------|-----------------------|-------|
| Base case at the time of negotiation | 377.0 | | |
| with 60 MW GFI Resource Addition | 372.0 | 5.00 | 8.33% |

| Costs* | <i>Annual Operations</i> |
|--|--------------------------|
| | 2024 - 2044 |
| Program support (i.e. annual reporting, billing) | \$3,924 |
| Program oversight | \$3,972 |
| Customer engagement | \$4,071 |
| Resource Contract Managemenet | \$1,382 |
| Subtotal | \$13,349 |
| Amortized development costs | \$3,576 |
| Total annual budget | \$16,925 |

| | |
|--------------------------------------|-------------------------|
| | CSO Admin fee (per MWh) |
| \$/MWh | \$0.07 |
| \$/kWh | \$0.00007 |
| Generation (MWh) | 142,101 |
| Remainder 40MW Generation Est. (MWh) | 101,616 |
| Total Estimated Generation | 243,717 |
| Program length | 20 |

**Integration, shaping, and firming costs are included in the PPA price.*

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the Highly Confidential Documents in UM 1953 to be served by electronic mail to those parties whose e-mail addresses appear on the attached service list for OPUC Docket UM 1953.

Dated at Portland, Oregon, this 18th day of November, 2022.

/s/ Danielle McCain

Danielle McCain
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