



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

December 20, 2023

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, 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. Highly 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 methodologies authorized in Commission Order No. 21-091.

The attached calculations are related to a renegotiated power purchase agreement associated with 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. These calculations remain consistent with the credit methodology applied to the previous filing under Phase II as filed on November 18, 2022, in Docket No. UM 1953 and approved under Order No. 23-035 but are updated to reflect the renegotiated power purchase agreement.

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 draft customer 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 to puc.workpapers@puc.oregon.gov.

PGE respectfully requests that the OPUC Staff review this filing and submit acknowledgement of PGE's compliance during the January 23, 2024, public meeting.

UM 1953 PGE's Green Energy Affinity Rider, Schedule 55,
CSO Option, Rate and Credit Calculations
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Please direct questions to Christopher Pleasant at christopher.pleasant@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
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			Assumptions	
Subscriber Cost (\$/MWh)				
	PPA	Subscriber Agmt		
PPA Cost			Resource	GFI - Phase 2 CSO
PGE admin	\$ 0.06	\$ 0.07	Project Size (MW)	60
Energy Credit	\$ (53.52)		ELCC	8.33%
Capacity Credit	\$ (6.70)		Term Length (years)	25
PPA Premium			Start Year	2026
Subscriber Cost w/ Admin			Start Date	1/1/2026
			End Date	12/31/2050
			PPA Cost	End Highly Confidential
			Inflation	2.04%
			After Tax Nominal Cost of Capital	End Highly Confidential
			Net Cost of Capacity (\$/kW-yr)	\$149.58
			Degradation	0.50%

Begin Highly Confidential							
Cost & Credit Analysis							
Year	Year #	MWh's	PPA Cost	PGE Admin Cost	Energy Value	Capacity Value	Net Cost/ (Benefit)
2026	1	148,906		10,341			
2027	2	148,162		10,289			
2028	3	147,670		10,255			
2029	4	146,684		10,186			
2030	5	145,950		10,136			
2031	6	145,220		10,085			
2032	7	144,739		10,051			
2033	8	143,772		9,984			
2034	9	143,053		9,934			
2035	10	142,338		9,885			
2036	11	141,866		9,852			
2037	12	140,918		9,786			
2038	13	140,213		9,737			
2039	14	139,512		9,688			
2040	15	139,050		9,656			
2041	16	138,121		9,592			
2042	17	137,430		9,544			
2043	18	136,743		9,496			
2044	19	136,290		9,465			
2045	20	135,379		9,401			
2046	21	134,702		-			
2047	22	134,028		-			
2048	23	133,584		-			
2049	24	132,692		-			
2050	25	132,028		-			
0	0	-		-			
NPV				\$106,886			
Average		142,101					
LCOE (\$/MWh)				0.06	(53.52)	(6.70)	
Nominal LCOE (\$/MWh) for Subscriber Agreement*:				\$ 0.07			

* Note that the entire 25-year expected Net Cost to PGE will be collected from Subscriber in their 20-year Subscriber Term

Total Expected Average Annual Cost to Subscriber	Begin Highly Confidential
Total Expected Average Annual Cost to Subscriber	End Highly Confidential

**Net Cost of Capacity
DSP
2021\$**

Resource COD		6-Hour Battery 2025	
Fixed Cost	\$	163.97	
Variable Cost	\$	-	
Integration Cost	\$	-	
Energy Value	\$	(10.98)	
Flexibility Value	\$	(29.43)	
ELCC		86%	
Net Cost of Capacity	\$	149.58	2023\$

Effective Load Carrying Capability (ELCC)

	Capacity shortage	Capacity Contribution	ELCC
Base case at the time of capacity commitment	377.0		
with 60 MW GFI Resource Addition (Bakeoven)	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
Bakeoven Generation (MWh)	142,101
Remainder 40MW Generation Est. (MWh)	101,616
Total 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 **Portland General Electric Company's** **HIGHLY CONFIDENTIAL Phase 2 CSO Compliance Filing** 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 20th day of December, 2023.

/s/ Danielle McCain

Danielle McCain
Office Administrator
Portland General Electric Company
121 SW Salmon Street, 1WTC0306Portland, OR 97204
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UM 1953 Service List

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