



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

August 18, 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 work paper will be submitted to [puc.workpapers@puc.oregon.gov](mailto:puc.workpapers@puc.oregon.gov).

The attached calculations are related to the capacity available under PGE's and QTS Investment Properties Hillsboro, LLC's (QTS) joint petition adopted in Commission Order No. 21-468 that authorizes 250 MW of additional renewable energy nameplate capacity in the Customer Supplied Option (CSO). Order 22-243 granted a waiver from the competitive bidding rules in Division 89 for the procurement of the resource. The attached calculations address 120 MW, of the 250 MW available for QTS.

The attached calculations include the use of PGE's energy curve from its 2021 All-Source Request for Proposal, and a net cost of capacity from its 2022 Distribution System Plan – Part Two, both of which are consistent with PGE's compliance filings in Docket No. UM 1953 dated November 18, 2022, and approved in Order No. 23-035 and Order No. 23-036.

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.

PGE respectfully requests that the OPUC Staff review this filing and submit acknowledgement of PGE's compliance during the September 21, 2023, public meeting.

Please direct questions to Christopher Pleasant at [christopher.pleasant@pgn.com](mailto:christopher.pleasant@pgn.com). Please direct all formal correspondence and requests to the following email address [pgc.opuc.filings@pgn.com](mailto:pgc.opuc.filings@pgn.com).

Sincerely,

*\s\ Riley Peck*

Riley Peck  
Senior Manager, Regulatory Strategy

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

Subscriber Cost		
PPA Cost (\$/MWh)		
Energy Credit (\$/MWh)	\$ (52.16)	
Capacity Credit (\$/MWh)	\$ (6.00)	
PPA Premium (\$/MWh)		
PGE Admin (\$/MWh)	\$ 0.09	\$ 0.09

End Highly Confidential

Inputs	
Project Name	GFI - QTS
Project Size (MW)	120
ELCC	7.50%
Term length (yrs)	20
Start Date	9/30/2026
End Date	10/1/2046
PPA Cost	
Inflation	2.07%
After Tax Nominal Cost of Capital	
After Tax Real Cost of Capital	
Net Cost of Capacity (\$/kW-yr)	\$ 149.69
Degradation	0.50%

Begin Highly Confidential

End Highly Confidential

Begin Highly Confidential

End Highly Confidential

Begin Highly Confidential

End Highly Confidential

Begin Highly Confidential

Cost & Credit Analysis									
Year	Year #	MWh for PPA	MWh for Subscriber	PPA Cost	PGE Admin Cost	Energy Value	Capacity Value	Net Cost/ (Benefit)	
2026	1	18,368	18,368		1,574				
2027	2	298,470	298,470		25,574				
2028	3	297,477	297,477		25,489				
2029	4	295,493	295,493		25,319				
2030	5	294,015	294,015		25,192				
2031	6	292,545	292,545		25,066				
2032	7	291,572	291,572		24,983				
2033	8	289,627	289,627		24,816				
2034	9	288,179	288,179		24,692				
2035	10	286,738	286,738		24,569				
2036	11	285,785	285,785		24,487				
2037	12	283,878	283,878		24,324				
2038	13	282,458	282,458		24,202				
2039	14	281,046	71,310		6,110				
2040	15	280,112	-		-				
2041	16	278,243	-		-				
2042	17	276,851	-		-				
2043	18	275,467	-		-				
2044	19	274,551	-		-				
2045	20	272,719	-		-				
2046	21	236,571	-		-				
NPV					\$192,124				
Average		270,484							
Nominal LCOE (\$/MWh) for PPA:					\$0.07	\$ (52.16)	\$ (6.00)		
Nominal LCOE (\$/MWh) for Subscriber Agreement:				Begin Highly Confidential	\$0.09				End Highly Confidential

End Highly Confidential

<b>Costs*</b>	<b>Per Year</b>
	<i>Annual Operations</i> <b>2026-2039</b>
Program support (i.e. annual reporting, billing)	\$5,998
Program oversight	\$4,294
Customer engagement	\$4,153
Resource Contract Management	\$3,048
Subtotal	\$17,492
Amortized development costs	\$5,684
<b>Total annual budget</b>	<b>\$23,176</b>

	CSO Admin fee (per MWh)
\$/MWh	\$0.09
\$/kWh	\$0.000086

Tower Generation (MWh)	270,484
Program length	12.58

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

**Net Cost of Capacity**

**DSP  
2021\$**

<b>Resource COD</b>		<b>6-Hour Battery 2025</b>	
<b>Fixed Cost</b>	\$	163.97	
<b>Variable Cost</b>	\$	-	
<b>Integration Cost</b>	\$	-	
<b>Energy Value</b>	\$	(10.98)	
<b>Flexibility Value</b>	\$	(29.43)	
<b>ELCC</b>		86%	
<b>Net Cost of Capacity</b>	\$	149.69	2023\$

**Effective Load Carrying Capability (ELCC)**

	<b>Capacity shortage</b>	<b>Capacity Contribution</b>	<b>ELCC</b>
<b>Base case at the time of negotiation</b>	372.0		
<b>with 120 MW GFI Resource Addition</b>	363.0	9.00	7.50%

## 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 18th day of August, 2023.

*/s/ Danielle McCain*

Danielle McCain  
Office Administrator  
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## UM 1953 Service List

### ALLIANCE OF WESTERN ENERGY CONSUMERS

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Dated at Portland, Oregon, this 18th day of August, 2023.

*/s/ Danielle McCain*

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