

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: September 21, 2023**

REGULAR **CONSENT** **EFFECTIVE DATE** September 22, 2023

DATE: September 14, 2023

TO: Public Utility Commission

FROM: Ryan Bain

THROUGH: Caroline Moore and Scott Gibbens **SIGNED**

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. UM 1728)
Request to Update Schedule 201 Qualifying Facility Information, Avoided
Cost Interim Solar-Plus-Storage Rate.

STAFF RECOMMENDATION:

Approve Portland General Electric's (PGE or Company) filing in compliance of the Oregon Public Utility Commission's (OPUC) Order No. 23-179, establishing a solar plus storage avoided cost rate as part of its standard avoided cost schedule.

DISCUSSION:

Issue

Whether the Commission should approve PGE's filing in compliance of the Oregon Public Utility Commission's (OPUC) Order No. 23-179, establishing a solar plus storage avoided cost rate as part of its standard avoided cost schedule.

Applicable Orders and Rules

OPUC Order No. 23-179 adopting Staff's solar plus storage (S+S) interim rate proposal and directing PGE to file standard avoided cost rates using the methodology adopted. A summary is provided below for convenience.

Overview of the Inputs for the Commission’s Approved Methodology

Methodology	Standalone Solar	Solar Plus Storage
Proxy Resource for calculation of capacity contribution	Solar resource modeled in IRP	Solar resource modeled in IRP with 1:1 storage ratio and 4-hour battery.
Capacity Contribution	LOLP/ELCC Model based on expected generation	LOLP/ELCC Model based on expected generation and storage dispatch during premium peak hours when possible
“Peak” Hours	6 AM – 10 PM Mon-Sat	4 Hours/Day based on LOLP need
Capacity Payment	On-peak hours after sufficiency period	Premium Peak hours after sufficiency period
Energy Payment	On-peak/Off Peak Pricing	On-peak/Off Peak Pricing
Avoided Capacity Resource	Combined-cycle combustion turbine	Combined-cycle combustion turbine
Update Process	May 1 and 30 days following IRP acknowledgement	May 1 and 30 days following IRP acknowledgement
Premium Peak Hour Update Process	N/A	30 days following IRP or IRP Update acknowledgement
Availability	Unlimited	50 MW First Tranche

Analysis

Background

On July 31, 2023, in compliance with the above stated order, rules, and statutes, PGE filed its Schedule 201, Qualifying Facility Avoided Cost Power Purchase Information for Qualifying Facilities (QFs) 10 MW or Less. This filing includes new inputs of a capacity contribution for a solar plus storage proxy resource and Premium Peak Hours. The Natural Gas Forward Prices and Electric Forward Prices are the same inputs ultimately approved in the Company’s May 1 update, including the updated long-term Natural Gas Forward Prices from the Company’s June 14, 2023 supplemental update to its May 1 filing. At the time of filing, the Company anticipated that the Power Purchase Agreement (PPA) included in the filing would be approved by the Commission for use, through UM 2299, before the filing’s effective date. As the PPA remains unapproved by the Commission, PGE’s proposed changes to the PPA proposed in UM 2299 are moot for purposes of this proceeding. Staff recommends that only the rate schedule be adopted for use, and that the PPA portion of the filing be disregarded.

Filing Overview

Staff has reviewed the Company's application and workpapers and finds that they are in compliance with the Commission approved methodology for PGE's avoided cost rates. Staff finds that overall, the rates were properly calculated and recommends that the rates be allowed to go into effect. Staff's review included verifying the accuracy of updated inputs, and scrutiny of the workpaper calculations for accurate references and output. Staff held a workshop with the Company and stakeholders on August 10, 2023, and met with the Company to discuss their modelling on August 30, 2023.

Premium Peak Hours

PGE began their identification of Premium Peak Hours with the loss of load probability (LOLP) heatmap from the Company's 2023 IRP. The Company then made adjustments to these hours with additional inputs of historical and forecasted wholesale power prices, and feedback from the Company's Power Operations Team. The adjusted dispatch profile is designed to generate the greatest wholesale benefit for cost-of-service customers, based on the additional energy value of the dispatch profile. While this adjustment is a step beyond what Staff outlined in the original methodology, Staff is comfortable with the adjustment given the additional benefit to ratepayers and de minimis impact to expected QF party compensation of 0.024 percent, or roughly \$0.014/MWh based on the 15-year levelized price found in Table 1.¹ The Company's methodology results in Premium Peak Hours being split between morning and evening hours in the Winter months. The Company's initial proposed Premium Peak Hours are as follows: 6 a.m.–8 a.m. and 8 p.m.–10 p.m. for the months of November through February, and 6 p.m.–10 p.m. for the months of March through October.

Solar + Storage Proxy Resource

PGE modelled their solar plus storage proxy resource within Sequoia to determine the effective load carrying capacity (ELCC) of the resource. The proxy was modelled to dispatch during the four hours of highest LOLP based on PGE's Sequoia model from the Company's recent 2023 IRP Addendum. In accordance with the Commission's Capacity Contribution Best Practices adopted in UM 2011, Order No. 22-468, the Company 'tuned' their portfolio before producing the loss of load heatmap for use in estimating the proxy resource's ELCC. The resultant proxy resource ELCC value of 49 percent is used to calculate the capacity payment for solar plus storage QFs.

¹ Staff notes that PGE's selection of premium peak hours does not impact the actual price being paid but the \$0.014/MWh is based on the estimated difference between the proxy resource's ability to generate during strict LOLP versus LOLP/Market price based premium peak hours.

Price Comparison

The Company's proposed renewable fixed levelized avoided costs for a 15-year solar plus storage QF contract (2024 through 2038), as shown in Table 1, is an increase of approximately 33 percent versus renewable PV Solar rates.

Table 1: 15-Year Levelized Price Comparison (2024-2038)		
Proposed Renewable Solar + Storage Rate (\$/MWh)	Current Renewable PV Solar Rate (\$/MWh)	Difference (\$/MWh)
\$58.52	\$44.09	\$14.43

Conclusion

Staff believes PGE followed the requirements for establishing a solar plus storage avoided cost rate, implementing methodology appropriately and using appropriate inputs, consistent with its obligations under Oregon PUC Order No. 23-179. Staff finds that the filed rates are just, fair, and reasonable.

PROPOSED COMMISSION MOTION:

Approve PGE's update to its standard avoided cost schedule.