

Agenda Date: April 22, 2021
Item Number: A2

Docket: UE-210201
Company: Puget Sound Energy

Staff: Molly Brewer, Regulatory Analyst

Recommendation

Take no action, authorizing the tariff revision filed by Puget Sound Energy in Docket UE-210201 to become effective April 26, 2021.

Summary of Filing

On March 26, 2021, Puget Sound Energy (PSE or company) filed with the Washington Utilities and Transportation Commission (commission) a revision to Schedule 62 – Substation and Related Equipment Capacity that extends the optional Schedule 62 service to other customers. These include customers who are receiving Primary Electric Service under PSE’s Schedules 26 – Large Demand General Service and 31- Primary General Service. PSE’s proposal does not increase rates, nor does it restrict access to the optional services under Schedule 62.

Background

PSE’s proposal is due to a request from an electric light rail service customer. This customer will require substantial dedicated standby capacity to meet operational requirements under the Standard 1653.2—Uncontrolled Traction Power Rectifiers for Substation Applications Up to 1500 V DC Nominal Output—of Institute of Electrical and Electronic Engineers, Inc. (IEEE). IEEE’s Standard 1653.2.

IEEE 1653.2 outlines minimum requirements for light rail systems including traction power substations (TPSS) along the route. Each TPSS relies on power from a local utility company and must be rated for extra heavy-duty traction power service for normal and contingency conditions.¹ To create traction power, the TPSS must transform AC three-phase voltage to DC voltage at appropriate service levels, which requires a significant amount of available capacity. Currently, electric light rail customers are receiving service on Schedules 26 and 31 which do not offer dedicated capacity leasing. Schedule 62 offers capacity leasing to specific customers however this service is not currently available to customers on Schedules 26 or 31.

Discussion

PSE will need to set aside substantial capacity on its distribution system to help this electric light rail customer meet the IEEE 1653.2 requirements. To do so, PSE could construct dedicated

¹ IEEE 1653.2 subsection 7.3.3 Extra Heavy Traction Service.

facilities for the TPSS or offer the Schedule 62 capacity leasing service. However, there are two distinct problems with offering dedicated facilities:

- 1) Dedicating capacity under any circumstance could impact general reliability, and
- 2) While this proposal came from a specific customer for light rail service, PSE believes other Schedule 26 and Schedule 31 customers may request capacity leasing in the future.

Expanding the availability of Schedule 62 mitigates both the reliability and standardization issue. All capacity leasing contracts under Schedule 62 undergo the same assessment for reliability.² Although PSE does not currently expect issues with reliability for other customers in the same distribution area as a TPSS, the assessment approach ensures ongoing monitoring. If PSE needs to make more upgrades due to the impacts of the lease, the costs will be included in the monthly lease bill.

Conclusion

Given that PSE can offer the Schedule 62 substation capacity leasing service to customers under Schedule 31 and Schedule 26 while supporting reliability for all customers under normal and contingency conditions, staff agrees with the company's proposal. Expanding Schedule 62 allows other customers to use an existing service in a standardized format while ensuring the company can continue to maintain appropriate reliability levels.

² The company conducts regular assessments to decide what system enhancements PSE needs to make. Anticipating demand changes, the company expects to add upgrades to substations or pursue other alternatives such as Distributed Energy Resources (DERs) and non-wire solutions.