



**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Hybrid Resources

Docket No. AD20-9-000

Statement of Laura Hatfield
Contract Manager, Transmission Policy & Contracts
Puget Sound Energy, Inc.

**Federal Energy Regulatory Commission Hybrid Resources Technical Conference
Panel 2: Interconnection Issues Facing Hybrid Resources**

July 23, 2020

Distinguished Commissioners and Staff,

I would like to thank the Federal Energy Regulatory Commission (“FERC” or the “Commission”) for arranging this important technical conference and for providing Puget Sound Energy, Inc. (“PSE”) the opportunity to share our perspective on issues facing the interconnection of hybrid resources today.

PSE is Washington State’s largest and oldest privately-owned natural gas and electric utility. For more than 145 years, PSE and its predecessors have served the Puget Sound region with safe, reliable, and affordable energy. Today, PSE delivers energy to approximately 1.1 million electric customers and 840,000 natural gas customers across ten counties in Western Washington, and we strive to provide our customers with innovative solutions to help them meet their energy goals.

PSE has a historical peak load of approximately 4,900 MW and operates as a transmission owner, operator, and balancing authority area in the Western Electricity Coordinating Council. PSE's transmission network is primarily in the Pacific Northwest, which is largely surrounded by Bonneville Power Administration, public utility districts, cooperatives and other entities not under FERC jurisdiction. PSE also has joint ownership rights in the Colstrip Transmission System that is jointly owned, operated, and maintained by the Colstrip Transmission Owners pursuant to the Colstrip Project Transmission Agreement ("Colstrip Transmission Agreement").¹

PSE began participating in the Western Energy Imbalance Market ("EIM") operated by the California Independent System Operator ("CAISO") on October 1, 2016. Our participation has resulted in reduced costs for PSE customers of approximately \$16.2 million per annum. It has also enhanced system reliability, integration of variable energy resources, and geographic diversity of electricity demand and generation resources. Currently, PSE is participating in CAISO's examination of how hybrid generation resources can operate within the CAISO market and in the EIM, targeted for the fall of 2021. PSE is also exploring participation in the Day-Ahead Market Enhancements and Extended Day Ahead Market initiatives to the EIM, working to improve market efficiency by integrating renewable resources using day-ahead unit commitment and scheduling across a larger area.

In May 2019, Washington State passed the Washington Clean Energy Transformation Act ("CETA") that supports Washington's clean energy economy and transition to a clean, affordable, and reliable energy future. Among other things, CETA requires electric utilities to eliminate coal-fired generation from their portfolios by 2026, to be carbon neutral by 2030, and to source electricity that is 100 percent clean by 2045. With these goals on the horizon, the topic of hybrid resources is a timely one. FERC has made significant strides recently on interconnection reform, yet the volume of hybrid and storage resources continues to grow in interconnection queues across the country. Like many other utilities, PSE continues to see an increase in hybrid generation interconnection requests. Presently, PSE has nearly 6,500 MW of

¹ The Colstrip Project Transmission Agreement is on file with the Commission as a joint tariff, with Portland General Electric Company as the designated filing company. *See* Portland General Electric Company – Other Rate Schedules, CTA, Rate Schedule No. 160, Colstrip Project Transmission Agrmnt.

active projects in our generation interconnection queue, which includes renewables, storage only and hybrid resources. Of those requests, approximately a third are hybrid and storage resources. From this perspective, PSE offers its hybrid resource-specific observations below.

Complexities in the interconnection process and wholesale charging from the grid

PSE supports the exploration of reforms and clarifications to the interconnection procedures for interconnecting hybrid resources, as well as wholesale charging from the grid.

Data requirements may be unclear or inconsistent for Interconnection Customers when submitting applications under the FERC Large and Small Generator Interconnection Procedures. PSE therefore recommends that FERC explore the possibility of revisiting the form of the application and data requirements for generator interconnection service specifically to accommodate the recent evolution of technologies for hybrid resource(s) interconnecting to a single Point of Interconnection. Additionally, it has been PSE's experience that modeling the generating facility is complicated by hybrid resources. PSE would therefore support further development of hybrid resource modeling guidelines and requirements for planning and operational purposes through industry forums (e.g. WECC, NERC). Such guidelines could include enhancements and practices for modeling the cumulative generation (net output) of co-controlled and fully integrated control of hybrid resources at the the Point of Interconnection. Currently PSE combines separate controllers for hybrid resources into a simplified model for interconnection studies.

The current regulatory framework and rules for hybrid resources seeking generator interconnection service could be further clarified, particularly the study process and additional guidance for managing changing conditions when charging from the grid.

Hybrid resources charging from the grid may be required to file for interconnection as a load (e.g., line and load requests). Charging is an economic choice and often the charging assumptions and characteristics for hybrid resources evolve over time, which can result in area load impacts and increasingly complex studies when generation interconnection and charging as a load are studied. Accordingly, PSE recommends review of the rules to address the unique issues with hybrid resources, such as load service and wholesale transmission service when

charging from the grid in non organized markets. This would allow for additional clarity in regards to the process for providers that currently offer separate generator interconnection service, line and load service, and transmission service.

I would again like to thank the Commission making the time for today's technical conference on hybrid resources. I look forward to your questions, and to continuing today's dialogue with the Commission.

Sincerely,
/s/ Laura Hatfield

Laura Hatfield
Contract Manager, Transmission Policy & Contracts
Puget Sound Energy, Inc.