

November 4, 2019

To: Irena Netik – Puget Sound Energy (PSE) Director of Energy Supply Planning and Analytics

Cc: Jay Balasbas – UTC Commissioner
Rachel Brombaugh – King County Executive Energy Policy & Partnerships Specialist
Brad Cebulko – UTC Staff
Carla Colamonici – Regulatory Analyst, Public Counsel Division
David Danner – Utilities and Transportation (UTC) Commission Chair
Lisa Gafken – Assistant Attorney General, Public Counsel Unit Chief
Steve Johnson – UTC Staff
Ann Rendahl – UTC Commissioner
Deborah Reynolds – UTC Staff
Kathi Scanlan - UTC Staff
Bill Pascoe – Pascoe Energy

Subject: 2019 IRP Technical Input – Transmission Capacity Improvement

Note: The TAG acknowledges the WUTC Staff petition for an IRP schedule exemption. This technical input is submitted in response to PSE’s commitment to “continue to ... maintain and respond to public input”. This technical input should be considered an integral part of the collection of 2019 PSE IRP documents. We appreciate PSE’s commitment to also include these technical inputs in the 2021 PSE IRP.

In the May 22, 2019 Listening Session, PSE VP David Mills stated there was a growing need to improve electric transmission capacity over the mountains. The existing PSE transmission line that extends over Rockies to the Colstrip facility is the Montana Intertie and its westward extensions and has a limited capacity of approximately 1 GW. It is a High Voltage AC line.

The utility industry has reported on the technology to convert HV AC lines to High Voltage DC (HVDC). The major advantage of this technology is that it can increase transmission capacity by about 40%. Additionally, it reduces line loss. The conversion is cost effective on long lines such as the Montana Intertie and its extensions. Such a conversion would benefit PSE in increasing its ability to bring lower cost renewable Montana wind energy with its superior winter peaking performance to customers.

Of course, there would be down-time on the line for the conversion. But what better time than during the closeout of the Colstrip facilities to accomplish this.

As a member of PSE’s Technical Advisory Group, I formally request that PSE post this letter on their 2019 IRP website and provide a written response to this question:

- Will PSE conduct a feasibility study in the next 6 months on converting the Montana Intertie and its extensions to HVDC to support scenario analysis in the next IRP?

Thank you,

Willard (Bill) Westre

Mechanical Engineer

PSE IRP TAG