PUGET SOUND ENERGY

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Whatcom County Council
Barry Buchanan, Chair
311 Grand St.
Bellingham, WA 98225

Dear Whatcom County Councilmembers,

Thank you for the opportunity to comment in support of the proposed amendment to Whatcom County Code 20.82.030 to allow transmission capacity greater than 115 kilovolts (kV) to be installed and operated. The existing prohibition is counter to our shared goals on clean energy, resiliency, and safety, and restricts adequate flexibility for and planning of transmission infrastructure.

Puget Sound Energy (PSE) is Washington State's largest and oldest electric and natural gas utility, serving approximately 1.1 million electric and 840,000 natural gas customers across 10 counties. PSE is proud to serve more than 112,000 electric customers in Whatcom County. Today, PSE is undergoing the most significant transformation in our history as we strive to meet some of the most ambitious clean energy laws in the nation while maintaining our core purpose of safely and reliably delivering energy to our customers.

Shared Goals

PSE and Whatcom County share a common goal to work towards clean energy transition. As Whatcom County works toward its Climate Action Plan, PSE is working to reduce greenhouse gas emissions from our energy supply and is making improvements to the grid to ensure safety and reliability. Additionally, we know that Whatcom County residents are enthusiastic participants in PSE's programs and services. More than 8,000 Whatcom County customers are enrolled in PSE's Green Power program and Whatcom County, the City of Bellingham, the Port of Bellingham, and Western Washington University are Green Direct subscribers, purchasing 100 percent of their energy from a dedicated, renewable resource. In partnership with our customers and communities, PSE is on the path to 100 percent clean electricity.

In 2019, PSE supported the Clean Energy Transformation Act (CETA) – one of the nation's most aggressive electric sector emissions reduction standards. When we publicly supported CETA, we committed to providing Washington residents with coal-free electricity by the end of 2025, achieving net zero emissions and 80 percent carbon free electricity by 2030, and 100 percent carbon free electricity by 2045. To meet those targets, PSE's 2023 Integrated Resource Plan (IRP) Electric Progress Report identifies a need for approximately 6,700 megawatts (MW) of additional renewable and non-emitting resources by 2030 and 15,000 MW by 2045. To put that in context, our current owned and contracted generating capacity is around 6,500 MW of nameplate capacity. Since 2019, we've procured more than 3,500 MW of renewable energy resources as part of our decarbonization journey.

In addition to adding new clean energy resources, our region is growing and policy changes at the local, state, and federal levels are driving an increased demand for electricity. For example, electric vehicle charging is projected to be 25 percent of PSE's total system load in 20 years. And recent changes in Washington State's Building Codes will result in greater electrification in the construction of new buildings. Keeping pace with this projected growth will require robust infrastructure including a modern grid and a combination of utility-scale generation, transmission, conservation, and distributed energy resources (DERs) such as locally sited solar and batteries.

Transmission Need

PSE's 2023 IRP Electric Progress Report identifies two critical needs. First, most of PSE's new renewable energy will be procured through utility-scale generation outside of western Washington. To maximize energy production and keep costs down, renewable energy resources like wind and solar need to be built where the wind and solar are strongest. In our region, utilities like PSE will need to acquire these new resources from around the Pacific Northwest region, including resource-rich areas like Montana, Wyoming, Idaho, Oregon, and eastern Washington. Second, PSE will require considerable development in transmission capacity to bring these renewable resources to customers in western Washington. The 2023 IRP identifies the need for additional transmission capacity in the 2030 to 2045 timeframe.

There are four primary considerations as it relates to transmission in Whatcom County:

- First, in the past 20 years, PSE has added approximately 28,000 customers and, over the next 20 years, PSE forecasts growing by about 30,000 new customers. It is expected that demand side management, such as energy efficiency programs and demand response programs, will reduce the future impacts of customer growth and transportation electrification. However, if residential, commercial and industrial energy needs expand faster than current projections or the regulatory environment shifts, this forecast will understate transmission needs.
- Second, for PSE and Whatcom County to meet climate and clean energy goals, renewable resources will likely need to be brought in from outside of the county as local wind and solar resources are not sufficient to meet demand.
- Third, Whatcom County is the only county in PSE's service territory that has a prohibition on 230 kV transmission lines, hindering PSE's ability to maintain a reliable grid into the future.
- Finally, there are four PSE-owned generation stations in Whatcom County that are utilized to meet system demands. As load demand increases in the coming years, these stations will continue to play an integral part in maintaining reliable service for customers both within and outside of Whatcom County.

Addressing the current prohibition of transmission lines above 115kV under Whatcom County Code 20.82.030 is a necessary enabling step in the clean energy journey. Flexibility is needed to ensure adequate infrastructure is planned for and can be sited appropriately, following the process outlined below.

Transmission Project Timelines and Process

Like any large-scale infrastructure project, transmission planning, building, and acquisition are complex processes with various possible outcomes. Before any project is built, a transmission and distribution system needs assessment would be performed to determine if there are capacity, reliability, and/or

aging infrastructure needs over a 10-year period. Following a needs assessment, PSE would conduct a solutions analysis to identify options for addressing the need. The current restriction on transmission lines above 115kV greatly limits our options to accommodate growth and fully realize the clean energy transition. For instance, restrictions on large transmission infrastructure may lead to multiple 115kV lines instead of one larger upgrade.

If a transmission project came to fruition, there would be a robust public process. Based on examples from our own service territory and from across the country, this process can take between 7 and 15 years to permit, site, and build. In that time, a project would need to go through several steps, including public engagement, permitting, design, and construction.

Health Risk

In 1990, proponents of Whatcom County Code 20.82.030 expressed concern about potential health hazards associated with exposure to electric and magnetic fields (EMF) generated by high voltage electrical power transmission lines. EMF is created every time electricity is produced or used. This includes everything from the electric appliance in your home to overhead distribution wires.

The World Health Organization and other research organizations have studied the potential for EMF to affect human health and have concluded that current evidence does not confirm a correlation between low-frequency EMF exposure and negative health issues. While scientists continue to conduct research, it is important to keep in mind that the intensity of exposure to EMF reduces the farther away you get from the sources. For example, standing on the ground under a power line is equivalent to standing next to some common household appliances. Additionally, health and safety are always some of the considerations that go into PSE's planning when considering where to site generation and transmission infrastructure.

Sources:

- Radiation: Electromagnetic fields | World Health Organization
- Power Lines, Electrical Devices, and Extremely Low Frequency Radiation | American Cancer Society
- Electromagnetic Fields and Cancer | National Cancer Institute
- Electric and Magnetic Fields from Power Lines | U.S. Environmental Protection Agency

Conclusion

A prohibition on transmission lines greater than 115kV limits PSE's options for accommodating growth, supporting customers' expansion goals, enabling the clean energy transition, and partnering with Whatcom County to meet its goals. As stated above, given the considerable time it takes to develop transmission infrastructure, removing this barrier now allows for better planning results in the future. Thank you for your consideration of amending Whatcom County Code 20.82.030.

Please contact me with any questions. I look forward to working with you on this issue.

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Puget Sound Energy