PUGET SOUND ENERGY

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Diane Butorac
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Re: PSE Scoping Comments regarding Ecology's Green Hydrogen PEIS

Dear Ms. Butorac.

Thank you for the opportunity to comment on the Department of Ecology's ("Ecology's") Draft Programmatic Environmental Impact Statement for Green Hydrogen Energy Facilities in Washington State ("Draft PEIS"). Puget Sound Energy, Inc. ("PSE") is deeply invested in the state's efforts to support a workable path forward on our energy future. PSE provides electric power service to approximately 1.2 million customers and natural gas service to 900,000 customers across ten counties in Western Washington. Complying with the Clean Energy Transformation Act and our own aspirational goals requires coordination and support. We greatly appreciate Ecology's diligence in the timely release of the Draft PEIS and the thoughtful analysis contained therein.

As a proud member of the Pacific Northwest Hydrogen Hub ("PNWH2"), PSE has been on the frontlines of green hydrogen development. Our experience has shown us that building a hydrogen economy is exceptionally difficult and requires governmental and financial support that, while moving towards a clean energy future, allows for flexibility in that development. We have seen that federal tax law and funding can breathe life into hydrogen development and—if removed— limit its viability. We have also seen that for off takers and end users to risk the substantial investment in new infrastructure (much of which also contains first-of-its-kind technology), there needs to be diversity in hydrogen production.

Due to the tremendous hurdles faced by hydrogen developers and end users, PSE reiterates comments made in our previous comment letter on scoping. We understand that Ecology has made intentional choices as to the Draft PEIS's scope, but we would like to emphasize that by omitting key methods of hydrogen production and transport, Ecology limits the potential use of the document for future development. Because a key lesson from the last five years is that system level constraints (e.g., governmental incentives and production pathways) can fundamentally undermine this emerging economy, we respectfully reemphasize the benefits of increase the PEIS's scope before it goes final.

Most significantly, by excluding consideration of the potential impacts of building hydrogen pipelines between production facilities to end users (the nature of which are regularly limited and capable of being mitigated), Ecology misses an opportunity to provide meaningful analysis of facilities that are reasonably foreseeable to be required. Hydrogen production does not exist in a vacuum. There must be an economy of end users to buy that hydrogen. Including pipelines in the analysis of the Final PEIS would help end users to see a path in Washington for hydrogen development and use.

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PSE also encourages Ecology to include an expanded discussion on hydrogen production through pyrolysis, including a discussion of using natural gas as a potential bridge fuel while a more reliable and robust supply of renewable natural gas and/or biomass is developed and reliably available in Washington. Today, end users throughout Washington— including PSE— are looking for reliable sources of renewable natural gas and biomass. The bottom line, however, is that the quantity of renewable natural gas that would be required to support a green hydrogen economy is not yet available. Moreover, there are serious questions as to whether it is prudent to prioritize the use of renewable natural gas for hydrogen production. In other words, if renewable natural gas were available in large quantities, would it make sense to convert that gas to another energy resource? From an energy generation perspective, renewable natural gas can be used directly for electricity production; converting renewable natural gas into hydrogen both takes energy and the resulting gas (green hydrogen) has less energy density on a volumetric basis.

Application of DOE's latest GREET H2 model demonstrates that pyrolysis of natural gas, when abating upstream emissions, can meet requirements specified in the National Clean Hydrogen Production standard. The economics of pyrolytic hydrogen are also substantially better than competing alternatives, which can stimulate market demand for clean hydrogen that will ultimately benefit all sources of low and zero carbon hydrogen. Incorporation of multiple production pathways that are based on carbon intensity will allow for faster adoption by industries that need clean hydrogen, while providing critical momentum to reach commercial liftoff. For these reasons, PSE requests that Ecology include analysis and consideration of pyrolytic hydrogen made with natural gas on an interim basis.

Again, PSE appreciates Ecology's efforts in completing this Programmatic EIS ("PEIS"), which we hope will ultimately support the development of a robust green hydrogen economy in Washington.

Sincerely,

Steve Schueneman