CLEAN ENERGY SITING COUNCIL

Date: February 14, 2024

Council Co-leads:

Ecology: Joenne McGerr, Diane Butorac, Brenden McFarland, Abbey Wellemeyer, Alex Shin, Lila Costello

Commerce: Michael Furze, Nora Hawkins, Aaron Peterson, Dan Siemann, Chris Green, Stephanie Celt, Shannon Pressler

Council members: *DAHP:* Allyson Brooks; *DNR:* Jim Woodward, Natalie Waid; *EFSEC:* Sonia Bumpus, Stewart Henderson; *EJ Council:* Jonathan Chen; *GOIA:* Craig Bill; *GOV:* Becky Kelley; *ORIA:* Dan McConnon; *UTC:* Payton Swinford, Heather Moline; *WDFW:* Ben Blank; *WSDA:* Gary Bahr; *WSDOT:* Ahmer Nizam

MEETING SUMMARY

Green Hydrogen Hub *(Chris Green, COM)*

The U.S. Department of Energy (DOE) chose the Pacific Northwest Hydrogen Hub for federal funding. The Pacific Northwest Hydrogen Association is a multi-state nonprofit coalition of public and private partners working on a hydrogen network. The projects submitted as part of the hub focus on green electrolytic hydrogen and is expected to have lowest carbon footprint of all hubs in the country. DOE and project proponents are in negotiations and those may extend to May.

Chris noted some issues that are in progress. This includes how the federal tax code will regulate tax credits for green hydrogen facilities. The availability, cost, and amount of renewable energy needed for these facilities will be a challenge and is being discussed; this is a common challenges for all the hubs. A Council member asked how much total energy could be needed for all of the projects, Chris estimated 1.5GW. The DOE will lead the National Environmental Policy Act (NEPA) reviews for the hub projects. They expect to hire a consultant to do this work in the spring. Projects will also need reviews under the State Environmental Policy Act (SEPA).

Green electrolytic hydrogen and renewable fuels: recommendations for deployment *(Stephanie Celt, COM)*

Stephanie talked about past legislative bills related to green hydrogen, including Senate Bill (SB) 5910, House Bill (HB) 1988, HB 1216, and HB 1236. SB 5910 directed Commerce to conduct a study of green electrolytic hydrogen and renewable fuels and develop recommendations. This study looked at the levels of green electrolytic hydrogen does Washington need to decarbonize most effectively.

The study modeled scenarios and found that uses for green hydrogen in the state include:

- Replacing fossil-derived hydrogen in refining and other chemical production processes
- Production of liquid fuels for use in on-road, maritime, and aviation transportation

- Production of ammonia, predominantly for use as a maritime fuel
- Direct use of hydrogen in fuel cell electric vehicles, specifically heavy-duty vehicles, freight rail, and marine fuel cells

The study found Washington will have strong demand for green electrolytic hydrogen and renewable fuels as part of a net zero economy. This may require importing hydrogen and renewable fuels from other states along with in-state production. There are opportunities to create environmental justice and workforce benefits for Washington communities if we focus on inclusive practices and equitable distribution of benefits. It found renewable generation and electric transmission will be challenges for WA and that siting needs to be sustainable over the long term.

Green hydrogen programmatic environmental impact statement *(Diane Butorac, ECY)*

Diane provided an update on the green hydrogen programmatic environmental impact statement (PEIS). This is a planning document that evaluates impacts at a broad level and will look state-wide. HB 1216 directed Ecology to lead this work and they have been coordinating with other state agencies and will use the Commerce green hydrogen report to inform the alternatives to be evaluated.

Scoping is planned to begin in mid-March 2024 with a draft in late 2024 and a final by June 2025. Stakeholder, Tribal, agency, and public involvement is crucial, and Ecology will engage early and throughout to get input and address impacts from these types of facilities. The document will provide guidance on siting and project design to avoid and reduce impacts and assist developers. SEPA project-level reviews will be needed for a green hydrogen project, but the PEIS will provide robust information on potential impacts and mitigation actions.

EFESC process related to green hydrogen *(Sonia Bumpus, EFSEC)*

Sonia provided information on a gap analysis done to evaluate how green hydrogen projects could be done using the EFSEC's site certification process. It considered the process and risks from these types of projects. It identified potential risks for the amount of water needed and the amount and availability of clean energy sources. She noted a pre-application discussion will be critical and they are developing an informal process template.

Council discussion on green hydrogen

The Council discussed storage options for hydrogen. Some places are using salt caverns, Washington does not have these, but hard rock storage has been brought up as an idea and COM has an operating budget funding request do a pre-feasibility study for this. There are federal regulatory aspects to underground storage as well. Hydrogen pipelines were also briefly discussed, and the group noted they are likely to be interstate and that the federal roles for regulating hydrogen pipelines is complex.

Council members discussed the challenges of mixing green hydrogen with other fuels. There are few international, federal, state, or local requirements specific to green hydrogen. In addition, there are operational limits on the percentage of hydrogen that can be added to existing pipelines and systems before there is a risk of affecting the equipment or components. The

group noted SEPA may be the tool to address these gaps. It was also pointed out that if data gathering or testing is needed for the impact analysis, timelines would be affected.

Agency updates

Agencies provided updates on legislative work related to clean energy, including HB 1924 on nuclear fusion energy and SB 6039 on geothermal energy resources.