



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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January 7, 2025

Dear Interested Parties,

In 2023, the Washington State Legislature directed the state Department of Ecology (Ecology) to conduct a study to assess and disclose probable significant adverse environmental impacts from green hydrogen production and storage energy facilities. Revised Code of Washington (RCW) [43.21C.535](#) requires the report evaluate measures to avoid and reduce likely impacts.

Ecology developed this draft Programmatic Environmental Impact Statement (PEIS) to provide consistent and useful information that the public, local and state agencies, Tribes, and developers can use to help review and plan for green hydrogen facilities. A PEIS is a type of environmental review used for planning; it is not an evaluation of a specific project. Each individual green hydrogen project will need a separate project-level review.

Green hydrogen facilities help support the state's transition to clean energy. However, green hydrogen facilities may have adverse environmental impacts. This PEIS evaluates, at a broad level, different types of green hydrogen facilities to identify probable significant environmental impacts and ways to avoid and reduce those impacts.

The draft PEIS evaluates the following types of green hydrogen facilities as well as a No Action Alternative:

- Green hydrogen production facilities: A green hydrogen production facility would produce hydrogen using one of the following processes: electrolysis, steam-methane reforming, pyrolysis, or bio-gasification. Production facilities would be in areas that are zoned for industrial land uses.
- Green hydrogen production facilities with battery energy storage systems: This facility type would be the same as the green hydrogen production facility described above but would include up to two co-located battery energy storage systems for back-up power.
- Green hydrogen storage facilities: A green hydrogen storage facility could store hydrogen in gas or liquid form. This type of facility could be co-located at green hydrogen production facilities, a stand-alone facility, at transport terminals, or at an end-use location such as an industrial facility or fueling facility.

Ecology is providing information at three different levels of detail. The PEIS summary includes an overview of the findings. The PEIS document includes more information on potential impacts and mitigation actions. The appendices include detailed and technical evaluations of resources. The following resource areas are evaluated in the draft PEIS:

- Aesthetics and visual quality
- Air quality and greenhouse gases
- Biological resources
- Earth resources
- Energy and natural resources
- Environmental health and safety
- Environmental justice
- Historic and cultural resources
- Land use
- Noise and vibration
- Public services and utilities
- Recreation
- Transportation
- Tribal rights, interests, and resources
- Water resources

Potential impacts on environmental resources associated with constructing, operating, and decommissioning green hydrogen facilities are analyzed in the PEIS. The findings identify resources where significant impacts are not likely as well as resources that could be significantly impacted. The study also considers cumulative impacts.

The PEIS identifies actions to avoid and reduce potential environmental impacts from a green hydrogen project. In some cases, mitigation measures can reduce probable adverse impacts to a less-than-significant level. In other cases, mitigation actions may reduce impacts, but not necessarily to a level below significance. Mitigation approaches will depend on the specific project and site.

The study can help a developer choose a suitable site, design a project, and submit a proposal that has considered potential environmental impacts. State and local agencies must use the information in the PEIS, as well as other publicly available information and site-specific details, to inform their environmental reviews and permitting decisions.

Comments on this draft PEIS will be accepted during the 30-day comment period (from 12:00 p.m., January 7 through 11:59 p.m., February 6, 2025). Comments should focus on the substance of the draft PEIS and be as specific as possible. This could include comments on the adequacy of the PEIS, alternatives, methodology used, mitigation measures identified, or additional information that should be considered. Comments may be submitted using the online form, by mail, or at an online public hearing. The draft PEIS and information on how to comment or attend a public hearing can be found on the [PEIS website](#).

Ecology will review and consider all comments received during the public comment period for the draft PEIS and may revise the study as a result. The final PEIS will be completed by the legislatively mandated date of June 30, 2025, and made available to the public. Questions about the draft PEIS or process may be directed to Diane Butorac at diane.butorac@ecy.wa.gov or (360) 407-6600.

Sincerely,



Diane Butorac
 SEPA Responsible Official
 Clean Energy Coordination Section, Shorelands and Environmental Assistance Program
 Washington State Department of Ecology