



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

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June 30, 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 [43.21C.535](#) requires the report to evaluate measures to avoid and reduce likely impacts.

Ecology is issuing this Final 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 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. The 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 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.
- **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 backup 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, at 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 technical appendices include detailed and technical evaluations of resources.

The following resource areas are evaluated in the 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 for which significant impacts are not likely as well as resources that could be significantly impacted. The study also considers cumulative impacts.

The PEIS identifies measures to avoid, reduce, and mitigate potential environmental impacts from a green hydrogen project. In some cases, mitigation measures can reduce potential adverse impacts to a less-than-significant level. In other cases, mitigation measures may reduce impacts, but not 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 consider the information in the PEIS, as well as other publicly available information and site-specific details, to inform their environmental reviews and permitting decisions.

The Draft PEIS was published on January 7, 2025. Comments on the Draft PEIS were accepted during a 30-day comment period (January 7 through February 6, 2025). Ecology conducted public notice and outreach activities to notify Tribes, agencies, members of the public, and interested parties of the public comment period and to announce public hearing dates.

Comments received on the Draft PEIS during the public comment period were considered by Ecology in the preparation of the Final PEIS.

Questions about the PEIS or process may be directed to Diane Butorac at [diane.butorac@ecy.wa.gov](mailto:diane.butorac@ecy.wa.gov) or (360) 407-6600.

Sincerely,



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SEPA Responsible Official  
Clean Energy Coordination Section, Shorelands and Environmental Assistance Program  
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