

# Sustainable aviation and renewable fuels: Washington state overview

CETI Decarbonization Forum

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Washington State  
Department of  
**Commerce**

# We strengthen communities



HOUSING AND  
HOMELESSNESS



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CRIME VICTIMS AND  
PUBLIC SAFETY



ECONOMIC  
DEVELOPMENT

# Office of Renewable Fuels

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- Established in RCW 43.330.565 and assigned duties in RCW 43.330.570
- The Office aims to accelerate a comprehensive market for green electrolytic hydrogen and renewable fuels, including alternative jet fuel, in Washington through partnerships, research, workforce development, and community engagement.

# 2021 State Energy Strategy key takeaways

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- Adopt a low-carbon fuel standard to support transportation decarbonization.
- Replacing liquid fuels is necessary to meet state emissions targets and is one of the most effective uses of clean hydrogen.
- Excess renewable generation could be used to produce hydrogen and renewable fuels, but new transmission and generation capacity is needed.

# Green Electrolytic Hydrogen and Renewable Fuels Legislative Report

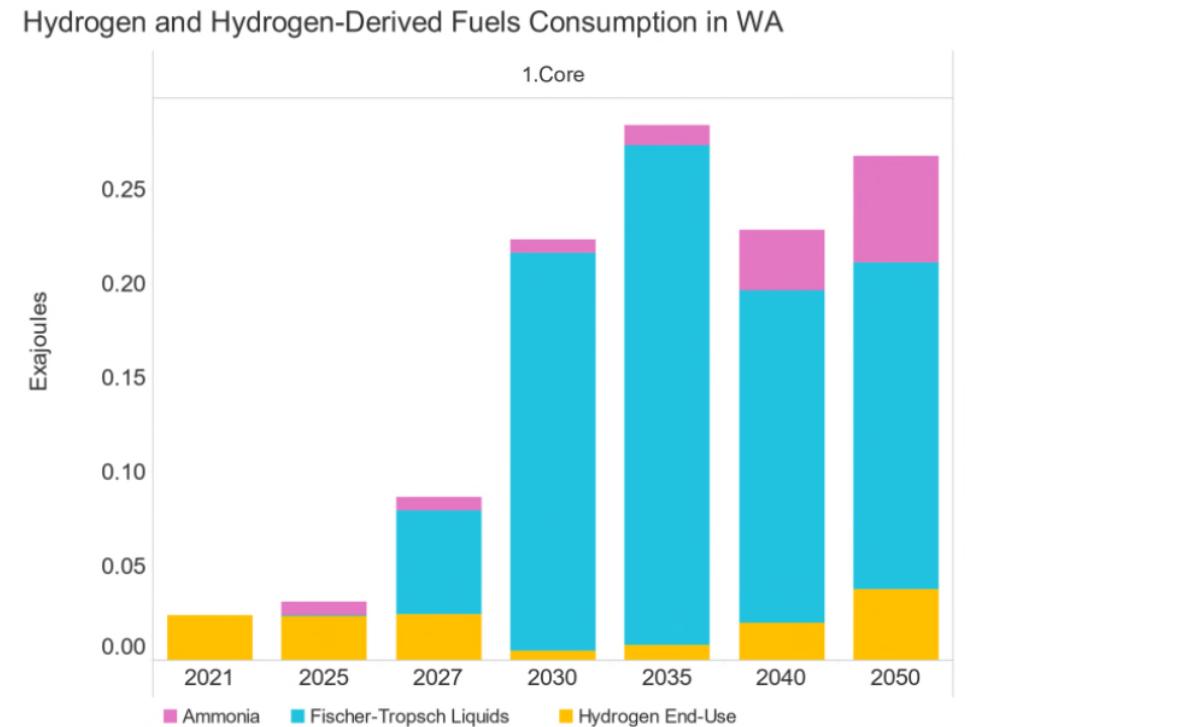
- Production must be developed in coordination with expanded renewable electricity capacity.
  - Report projects new in-state renewable electricity capacity will be needed for hydrogen production: 3.4 GW by 2030 and 36.8 GW by 2050.
- Importing hydrogen and renewable fuels from other states may develop as part of a cost-effective approach.
- Coordinated siting and permitting processes and reforms are needed for green hydrogen and new renewables.
- Projects must consider the unique environmental justice concerns of hydrogen and renewable fuels to reduce disproportionate environmental health burdens and distribute project benefits equitably.



# Hydrogen consumption in Washington

- Report projects that in-state hydrogen consumption is initially dominated by petroleum refining and bulk chemical production and later by hydrogen-derived fuels.

Figure 3. Core Case hydrogen and hydrogen-derived fuels consumption in Washington

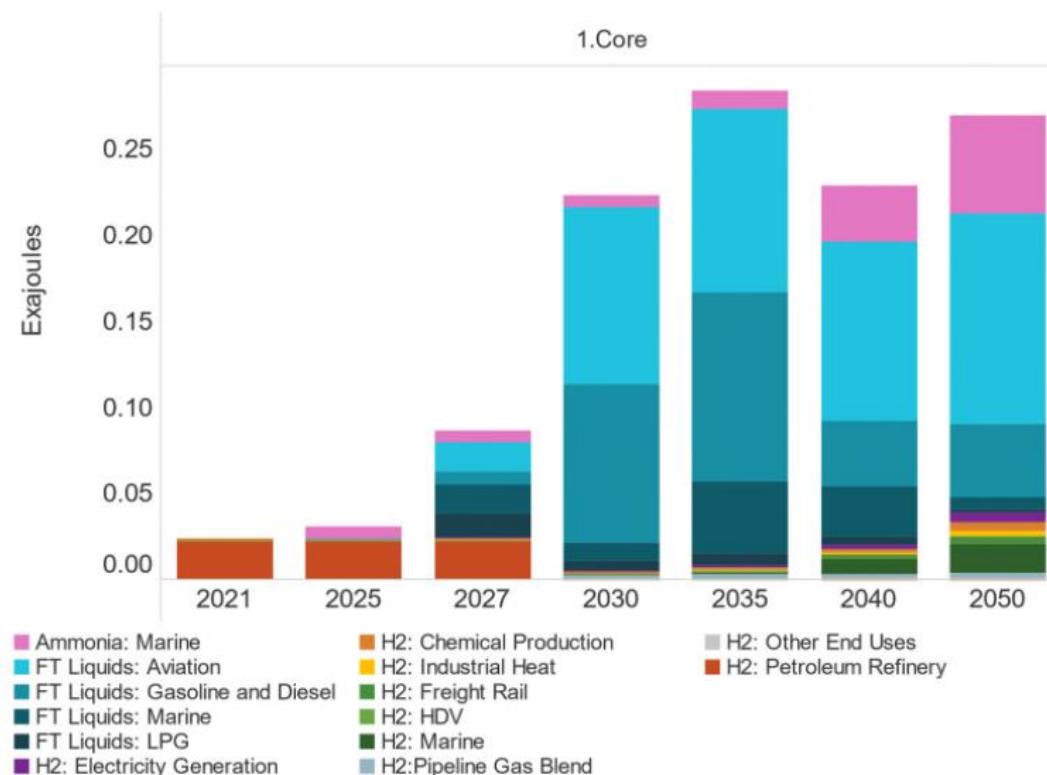


# Hydrogen demand in Washington

- State expects **significant growth** in green and renewable hydrogen demand between now and 2050
- Demand is expected to span a variety of sectors
  - **Near-term:** Displacing fossil-derived hydrogen in oil refining
  - **Mid-term:** Production of hydrogen-derived clean fuels
  - **Long-term:** Clean fuels and direct use of hydrogen for peak power decarbonization, industrial heat, and in rail/heavy duty vehicles

Figure 4. Core Case hydrogen and hydrogen-derived fuels use in Washington

Hydrogen and Hydrogen-Derived Fuels in WA by End Use



# 2024 Biennial Energy Report

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- Support implementation of recommendations in the Green Electrolytic Hydrogen and Renewable Fuels legislative report.
- Explore tax incentives and other market development policies to encourage the use of hydrogen and renewable fuels in strategic sectors.
- Evaluate feedstock supply and in-state production opportunities and impacts of renewable fuels.
- Develop additional projects to use hydrogen and renewable fuels in aviation, industry, heavy-duty transportation, and maritime industries.
- Prioritize equity and environmental justice in the clean energy transition.

# Washington energy policy landscape

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- Ch. 19.405 RCW – Clean Energy Transformation Act
- Ch. 70A.65 RCW – Climate Commitment Act
- RCW 82.04 – SAF manufacture (production and blending) and use tax credits; preferential business & occupation tax rate
- Ch. 82.89 RCW – Retail sales and use tax deferral for eligible investment projects, including clean fuels production facilities
- Ch. 70A.535 RCW – Clean Fuel Standard & Program
- RCW.43.21C.535 – Programmatic Environmental Impact Statement (PEIS) SAF being developed by Department of Ecology
- RCW 43.31.645 Creation of sustainable aviation fuel account

Other potential  
Commerce funding  
opportunities:

- Clean Energy Fund grants
- 2026 Clean Energy Research, Development and Demonstration Program
- H2 Technical Assistance Program

# Manufacturing incentives

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- Sales and use tax exemption for manufacturing and research & development (R&D) machinery and equipment (all counties)
- B&O tax credit for new jobs created in rural counties
- Sales/use tax deferral - Manufacturing and R&D - up to \$400,000 in qualifying counties with population of less than 650,000
- Governor's Strategic Reserve Fund Awards for high-impact opportunities (managed by OEDC)
- Evergreen Manufacturing Growth Grant (2025-2027)

# 2025-2027 biennial budget

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- Continued funding for:
  - The Office of Renewable Fuels
  - Implementation of ESSB 5447 (alternative jet fuel bill)
  - ORF technical assistance program for strategic end uses of hydrogen
  - WSDOT Sustainable Aviation Grant Program
  - Sustainable maritime fuels strategic framework development
- New funding for:
  - Cascadia Sustainable Aviation Accelerator and Institute
  - Snohomish County preconstruction of temporary SAF R&D center at Paine Field

# Environmental Justice Toolkit for Hydrogen Project Developers

**Released July 2025**

**Objective:** Provide practical recommendations and actionable guidance for hydrogen developers in project planning to promote:

- Robust community and tribal engagement
- Better collaboration and partnership between developers, tribes, and communities
- Improved equity and environmental justice outcomes of hydrogen projects

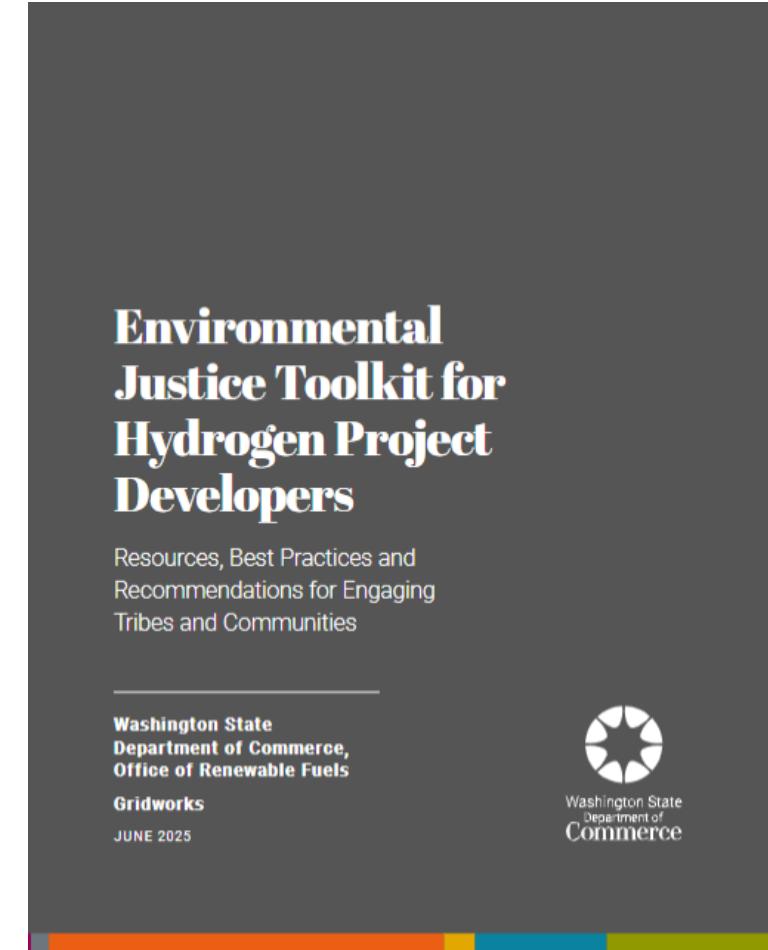
Informed by research, interviews, and advisory committee

**Key elements:**

- The case for meaningful engagement and collaboration & EJ context in Washington
- Recommendations and best practices for engaging tribes and communities
- Guidance and template for creating a Community Benefits Plan
- Guidance on identifying and mitigating common EJ concerns in hydrogen projects

**Links**

- [Webpage](#) (more information under “Resources”)
- Full document: [Environmental Justice Toolkit for Hydrogen Project Developers \(PDF\)](#)



# PNW Low-Carbon Hydrogen Analysis



**Released July 2025**

**Objective:** Conduct a study examining the hydrogen policy, regulatory, and industry ecosystem in British Columbia and Washington State, engage key stakeholders and Tribal/First Nations to understand opportunities and challenges to growth of a regional low-carbon hydrogen market, and identify areas where WA and BC can better align to make it easier to move hydrogen products, technologies, and business interactions across the border.

## **Key Elements**

- Engagement with industry, tribes/First Nations, academia, government, etc.
- Jurisdictional scan
- Regional low-carbon hydrogen supply and demand analysis
- Assessment of regional strengths and alignment opportunities
- Cross-border case studies
- Key findings and recommendations

## **Resources**

- [PNWER press release](#)
- [Webpage](#)
- Full report: [Pacific Northwest Low-Carbon Hydrogen Analysis \(PDF\)](#)

# Technical Assistance program

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**Funded through 2025-27 Operating Budget (ESSB 5167) to be launched by June 30, 2027**

**Objective:** Provide technical assistance for strategic end users of green electrolytic hydrogen, renewable hydrogen, and hydrogen-derived fuels across Washington.

**Initial ideas:**

- Focus support on public benefit agencies (transits, public utilities), tribal nations, industrial partners
- Partner with technical support provider(s) to provide deep support for a set of participants throughout the program period
- Elevate insights, findings, and outcomes of technical support in public-facing tools, resources, and case studies.

**Status:**

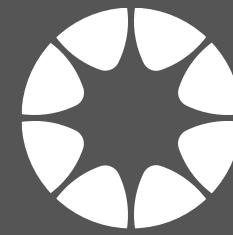
- Reviewing 60 responses to Request for Information (closed Jan 7, 2026)
- Program is in design and contracting decisions are in progress
- Program launch expected late Q1 2026 – will identify technical assistance opportunities and projects.

# Supporting partnerships and collaboration

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- Alternative Jet Fuel Work Group
- Cascadia Sustainable Aviation Fuel Center
- Sustainable Maritime Fuel Collaborative
- PNWH2 Hub





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[www.commerce.wa.gov](http://www.commerce.wa.gov)



# Thank you!

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