

# SENATE BILL REPORT

## SSB 5910

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As Amended by House, March 7, 2022

**Title:** An act relating to accelerating the availability and use of renewable hydrogen in Washington state.

**Brief Description:** Accelerating the availability and use of renewable hydrogen in Washington state.

**Sponsors:** Senate Committee on Environment, Energy & Technology (originally sponsored by Senators Carlyle, Billig, Conway, Hawkins, Hunt, Mullet, Saldaña and Stanford).

**Brief History:**

**Committee Activity:** Environment, Energy & Technology: 1/26/22, 2/02/22 [DPS-WM].  
Ways & Means: 2/05/22, 2/07/22 [DPS (ENET)].

**Floor Activity:** Passed Senate: 2/12/22, 49-0.  
Passed House: 3/7/22, 96-2.

### Brief Summary of First Substitute Bill

- Establishes the statewide Office of Renewable Fuels and creates the Renewable Fuels Accelerator Account.
- Authorizes the director of the Department of Commerce to provide state funding assistance to help promote and strengthen applications to secure federal funding to develop a regional clean hydrogen hub.
- Directs the Utilities and Transportation Commission to submit a report to the Legislature addressing specific issues relevant to advancing the production and use of non-fossil feedstock hydrogen in Washington.
- Adds renewable or electrolytic hydrogen and energy storage facilities as alternative energy resources eligible to opt in to the Energy Facility Site Evaluation review and certification process.
- Authorizes municipal utilities and public utility districts to produce, use,

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*This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.*

sell, and distribute renewable and electrolytic hydrogen.

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## SENATE COMMITTEE ON ENVIRONMENT, ENERGY & TECHNOLOGY

**Majority Report:** That Substitute Senate Bill No. 5910 be substituted therefor, and the substitute bill do pass and be referred to Committee on Ways & Means.

Signed by Senators Carlyle, Chair; Lovelett, Vice Chair; Das, Fortunato, Liias, Lovick, Nguyen, Sheldon, Stanford and Wellman.

**Staff:** Kimberly Cushing (786-7421)

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## SENATE COMMITTEE ON WAYS & MEANS

**Majority Report:** That Substitute Senate Bill No. 5910 as recommended by Committee on Environment, Energy & Technology be substituted therefor, and the substitute bill do pass.

Signed by Senators Rolfes, Chair; Frockt, Vice Chair, Capital; Robinson, Vice Chair, Operating & Revenue; Wilson, L., Ranking Member; Brown, Assistant Ranking Member, Operating; Schoesler, Assistant Ranking Member, Capital; Honeyford, Ranking Minority Member, Capital; Billig, Braun, Carlyle, Conway, Dhingra, Gildon, Hasegawa, Hunt, Keiser, Mullet, Muzzall, Pedersen, Rivers, Van De Wege, Wagoner, Warnick and Wellman.

**Staff:** Trevor Press (786-7446)

**Background:** Federal Infrastructure Investment and Jobs Act. The federal Infrastructure Investment and Jobs Act (IIJA) of 2021 provides \$8 billion over five years to support at least four regional clean hydrogen hubs to demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen. The U.S. Department of Energy (DOE) must solicit proposals for regional clean hydrogen hubs by May 15, 2022, and select the four hubs one year later.

According to DOE, electrolysis is a promising option for carbon-free hydrogen production from renewable and nuclear resources. Electrolysis is the process of using electricity to split water into hydrogen and oxygen. This reaction takes place in a unit called an electrolyzer.

Energy Facility Site Evaluation Council. Created in 1970, the Energy Facility Site Evaluation Council (EFSEC) is the permitting and certifying authority for siting major energy facilities in Washington. An EFSEC site certification agreement authorizes an applicant to construct and operate an energy facility in lieu of permits or documents required by any other state agency or subdivision. Energy facilities of any size that exclusively use alternative energy resources, such as wind power, can also opt into the EFSEC review and certification process.

Utility and Transportation Commission Energy Decarbonization Study. In the 2021-23 operating budget, the Legislature provided the Utilities and Transportation Commission (UTC) funding to examine feasible and practical pathways for investor-owned electric and natural gas utilities to contribute their share to the statutory greenhouse gas emissions reductions limits and the impacts of energy decarbonization on residential and commercial customers and the utilities that serve them. The results of the examination must be reported to the Legislature by June 1, 2023.

Tax Exemptions for Renewable Hydrogen. Certain aspects of the production of renewable hydrogen are exempt from retail sales tax, use tax, and, where the renewable hydrogen is produced at a facility operating pursuant to a lease of public lands, leasehold excise tax. These exemptions expire July 1, 2025.

Renewable hydrogen is defined as hydrogen produced using renewable resources both as the source for the hydrogen and the source for the energy input into the production process.

**Summary of First Substitute Bill:** Office of Renewable Fuels. The statewide Office of Renewable Fuels (Office) is established within the Department of Commerce (Commerce). The Office must report to the director of Commerce and may employ staff to carry out the Office's duties, subject to the availability of amounts appropriated. The purpose of the Office is to leverage, support, and integrate with other state agencies to:

- accelerate market development with assistance along the entire life cycle of renewable fuel projects;
- support research into the development and deployment of renewable fuel and electrolytic hydrogen production and distribution and end uses;
- drive job creation, improve economic vitality, and support the transition to clean energy;
- enhance resiliency by using renewable fuels and electrolytic hydrogen to support climate change mitigation and adaptation; and
- partner with overburdened communities to ensure communities equitably benefit from renewable and clean fuels efforts.

The Office must:

- coordinate with specified local, state, and federal governments, private entities, and the public four-year institutions of higher education to drive research, development, and deployment efforts in the production, distribution, and use of renewable fuels including electrolytic hydrogen;
- review existing renewable fuels and electrolytic hydrogen initiatives, policies, and public and private investments;
- encourage new and support existing public-private partnership and consider funding opportunities that provide for the coordination of public and private funds for the purposes of developing and deploying renewable fuels and electrolytic hydrogen;
- assess opportunities for and barriers to deployment of renewable fuels and electrolytic

- hydrogen in hard to decarbonize sectors;
- request recommendations from the Washington State Association of Fire Marshals regarding fire and safety standards adopted by the federal government and other authorities; and
- develop a plan and recommendations for consideration by the Legislature and Governor on renewable fuels and electrolytic hydrogen policy and public funding, by December 1, 2023.

The Office may take all appropriate steps to seek and apply for federal funds, grants, and donations. These funds must be deposited in the Renewable Fuels Accelerator Account (Account).

Regional Clean Energy Hub. The Legislature finds that Washington State is strongly positioned to develop a regional clean energy hub meeting the criteria of the IJA and that through state funding assistance may help to promote and strengthen applications to DOE for federal funding.

Subject to funds appropriated, the director of Commerce must seek to enter agreements with one more nonprofit entities or public agencies for the purpose of preparing an application to secure federal funding to develop a regional clean hydrogen hub in Washington. If the director determines that a single agreement with an entity to prepare an application will be more competitive for federal funding than supporting multiple applications, the director may choose not to make more than one award of funding.

The director must seek to enter a funding agreement with an entity whose proposal demonstrates a broad assembly of participants in developing and implementing the infrastructure of a regional hydrogen hub, a strong and timely application, and commitments from manufacturing industries, transportation, utilities, and other sectors to incorporate hydrogen fuels into their transition to cleaner energy.

In addition to application assistance, the Legislature intends that the state fully support a regional clean energy hub with further direct financial assistance in developing the hub and the acquisition of hydrogen fuels for state agency and local government uses.

Utilities and Transportation Commission Hydrogen Fuel Study. By December 1, 2024, the UTC must submit to the Legislature a report addressing the following:

- whether rates and services of hydrogen fuels distributed through natural gas distribution infrastructure are within the regulation of the UTC, or whether such jurisdiction should be assigned by the Legislature like other public service companies;
- whether electric utilities regulated by the UTC should analyze the costs and benefits of adopting special tariffs for the electrolytic production of hydrogen fuels;
- recommended standards, including safety standards, for blending non-fossil feedstock hydrogen into natural gas distribution infrastructure; and

- non-fossil feedstock hydrogen's role in the natural gas decarbonization study required in the the 2021-23 operating budget.

Energy Facility Site Evaluation Council. Renewable or electrolytic hydrogen or energy storage facilities are eligible to opt-in to the EFSEC review and certification process.

Public Utility Districts—Electrolytic Hydrogen. Public utility districts are authorized to produce, use, sell, and distribute electrolytic hydrogen to the same extent that they are currently authorized to produce, use, sell, and distribute renewable hydrogen.

Municipal Utilities—Renewable Hydrogen and Electrolytic Hydrogen. Municipal utilities are authorized to produce, use, sell, and distribute renewable hydrogen and electrolytic hydrogen to the same extent that they are currently authorized to produce, use, sell, and distribute gas and electricity.

Renewable Fuels Accelerator Account. The Account is created in the state treasury. Revenues to the Account consist of appropriations made by the Legislature, federal funds, gifts or grants from the private sector or foundations, and other sources deposited in the Account. Moneys in the Account may be spent only after appropriation. The director of the Office, or director's designee, may authorize expenditures from the Account for the Office.

Electrolytic Hydrogen. Electrolytic hydrogen is defined as hydrogen produced through electrolysis and does not include hydrogen manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock.

**Appropriation:** None.

**Fiscal Note:** Available.

**Creates Committee/Commission/Task Force that includes Legislative members:** No.

**Effective Date:** The bill contains several effective dates. Please refer to the bill.

**Staff Summary of Public Testimony on Original Bill (Environment, Energy & Technology):** *The committee recommended a different version of the bill than what was heard.* PRO: We need to unleash the marketplace for hydrogen. Washington has private sector leadership and large scale customers interested in hydrogen, including maritime, aviation, long-haul trucking, energy storage, and industrial manufacturing. The state needs to be the thought leader for renewable hydrogen and to create a strong ecosystem. The office will bring parties together to apply for regional hub grant. The office reporting date should be moved up if a grant is won. The \$500,000 might not be enough money. There is lots of interest in hydrogen in Washington and we would appreciate having someone in the state to talk to. Businesses are thinking about moving to Washington given the new policies. Zero emission aviation is technically viable. Washington has the best business

case in the nation to develop green hydrogen. We have advantages with the Climate Commitment Act. We have the potential to create more green electrons with our water and clean electricity. Hydrogen is a molecule that serves as a battery. Supporting hydrogen does not conflict with concerns about grid reliability. Hydrogen production is a perfect fit for when electricity is not needed and helps utilities respond to moment-to-moment demands in generation. Innovation is as important, or more, than top down regulation. Hydrogen is one element of decarbonization. This bill positions Washington as a candidate for federal funding. The food industry can use hydrogen for fueling stations. Other business are looking at how to blend hydrogen, how it will provide alternative heat when the power grid is not available, and the creation of appliances to work with new renewable fuels. This is a way for small businesses to participate in climate change.

OTHER: We support creating an office in Commerce and appreciate that it focuses on all renewable fuels. The state energy strategy points to hydrogen and we want to make sure investments in hydrogen are as effective as possible. The Office should report to Commerce, and the Joint Center for Deployment and Research in Earth Abundant Materials should be allowed to get funding. The tax incentives should be harmonized with other bills.

**Persons Testifying (Environment, Energy & Technology):** PRO: Senator Reuven Carlyle, Prime Sponsor; Dave Warren, Washington Green Hydrogen Alliance, Renewable Hydrogen Alliance; Patricia Kelley, New Day Hydrogen; Tim Zenk, Universal Hydrogen; Isaac Kastama, Clean & Prosperous Washington; Nicolas Garcia, Washington Public Utility Districts Association; Dan Kirschner, Northwest Gas Association; Logan Bahr, Tacoma Public Utilities; Carolyn Logue, WA ACCA and NWHPBA.

OTHER: Michael Furze, Washington State Department of Commerce.

**Persons Signed In To Testify But Not Testifying (Environment, Energy & Technology):** No one.

**Staff Summary of Public Testimony on First Substitute (Ways & Means):** PRO: Hydrogen is a clean energy that must play a role in the move to become carbon neutral. We are home to many of the world's non-fossil hydrogen firsts. This bill furthers our front-runner status. This bill is a way to help transition our economy off of fossil fuels. The bill helps give us the ability to discuss with customers about the fuel choice that will work for them. This bill allows us to help the small business convenience workforce transition to new sources of energy that are right for them. This bill is vital in establishing Washington as a leader in electrolytic hydrogen. This bill helps the hydrogen industry develop. We are pleased to see a coordinated application to the federal government.

**Persons Testifying (Ways & Means):** PRO: Dave Warren, Washington Green Hydrogen Alliance, Renewable Hydrogen Alliance; Carolyn Logue, NW Hearth, Patio & Barbecue Assn and WA Air Conditioning Contractors; Logan Bahr, Tacoma Public Utilities.

**Persons Signed In To Testify But Not Testifying (Ways & Means):** No one.

**EFFECT OF HOUSE AMENDMENT(S):**

- Replaces "electrolytic hydrogen" with "green electrolytic hydrogen" throughout.
- Adds federally recognized tribes and labor unions to the list of entities the Office of Renewable Fuels is directed to coordinate with.
- Directs the Department of Commerce to provide support to a public-private partnership, which must prepare a timely, responsive application for federal funding to develop a regional clean hydrogen hub; engage with a range of entities across state; and include specific commitments from entities to assist in funding the application and develop plans to construct infrastructure or incorporate electrolytic hydrogen fuels into their transition to cleaner energy.
- Removes the provision directing the Utilities and Transportation Commission (UTC) to submit a report to the Legislature addressing specific issues relevant to advancing the production and use of non-fossil feedstock hydrogen in Washington.
- Removes the provision adding renewable or electrolytic hydrogen and energy storage facilities as alternative energy resources eligible to opt in to the Energy Facility Site Evaluation review and certification process.
- Requires the Department of Revenue to publish guidance to advise county assessors when appraising renewable energy facilities.
- Adds the production of green electrolytic hydrogen to existing exemptions from retail sales tax, use tax, and leasehold excise tax that apply to certain aspects of the production of renewable hydrogen.
- Requires gas companies to file a notice with specific information with the UTC prior to replacing natural gas with renewable hydrogen or green electrolytic hydrogen to serve customers.
- Requires the UTC, when making a determination on a company's request for approval of any tariff related to the use of green electrolytic hydrogen or renewable hydrogen as a replacement for natural gas, to consider the following:
  - the Office of Renewable Fuel's assessment of opportunities for and barriers to the deployment of renewable fuels and green electrolytic hydrogen in hard to decarbonize sectors;
  - information considered in the gas company's notice; and
  - additional relevant data and analyses.
- Adds a null and void clause, making the bill null and void unless funded in the operating budget.