S-4129.1

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**SUBSTITUTE SENATE BILL 5910**

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**State of Washington 67th Legislature 2022 Regular Session**

**By** Senate Environment, Energy & Technology (originally sponsored by Senators Carlyle, Billig, Conway, Hawkins, Hunt, Mullet, Saldaña, and Stanford)

AN ACT Relating to accelerating the availability and use of renewable hydrogen in Washington state; amending RCW 80.50.020, 54.04.190, and 35.92.050; adding new sections to chapter 43.330 RCW; creating new sections; providing an expiration date; and declaring an emergency.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. **Sec.**  INTENT AND FINDINGS. (1) The legislature finds that while hydrogen fuel has been used in a variety of applications in the state, the source of hydrogen has been derived from fossil fuel feedstocks, such as natural gas. Hydrogen is an essential building block and energy carrier molecule that is necessary in the production of conventional and renewable fuels and a valuable decarbonization tool when used in sectors such as marine, aviation, steel, and cement, as well as surface transportation including light to heavy-duty vehicles, including transit, trucking, and drayage equipment. Hydrogen can be a carbon-free fuel with an energy per unit mass that is three to four times greater than jet fuel, whose energy can be extracted either through thermochemical (combustion) or electrochemical (fuel cell) processes. In both cases, the only by-product is water, instead of the greenhouse gases and other conventional and toxic pollutants that are emitted from using fossil fuels.

(2) The legislature further finds that the use of renewable hydrogen and hydrogen produced from carbon-free feedstocks through electrolysis is an essential tool to a clean energy ecosystem and emissions reduction for challenging infrastructure needs. Clean hydrogen fuel can be produced or "charged" closer to the generation of the electricity when the electrical supply grid has surplus energy, at times of low electricity use, such as evenings, then made available at times of higher need and convenient locations, such as fueling stations, avoiding the need to build or upgrade larger electrical infrastructure, including distribution systems, to meet higher peak demand for electricity.

(3) Therefore, the legislature intends by this act to establish policies and a framework for the state to become a national and global leader in the production and use of these hydrogen fuels. This act will create an office of renewable fuels to: Promote partnerships among industrial, transportation, agriculture, and commercial interests as well as fuel producers, the technology research sector, and public sector agencies; identify barriers to and opportunities for market development; provide greater clarity and certainty in regulatory and siting standards; provide incentives and financial assistance in the deployment of hydrogen fuel infrastructure; support a clean and just energy transition; help create good quality, clean energy jobs; and improve air quality in degraded areas, particularly in communities that have borne disproportionate levels of air pollution from the combustion of fossil fuels.

**Part 1**

**OFFICE OF RENEWABLE FUELS**

NEW SECTION. **Sec.**  A new section is added to chapter 43.330 RCW to read as follows:

The definitions in this section apply throughout sections 102, 103, and 104 of this act unless the context clearly requires otherwise.

(1) "Department" means the department of commerce.

(2) "Electrolytic hydrogen" means 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.

(3) "Office" means the statewide office of renewable fuels established in section 102 of this act.

(4) "Overburdened communities" has the same meaning as defined in RCW 70A.02.010.

(5) "Renewable fuel" means fuel produced using renewable resources and includes renewable hydrogen.

(6) "Renewable hydrogen" has the same meaning as defined in RCW 54.04.190.

(7) "Renewable resource" has the same meaning as defined in RCW 19.405.020.

NEW SECTION. **Sec.**  A new section is added to chapter 43.330 RCW to read as follows:

(1) The statewide office of renewable fuels is established within the department. The office shall report to the director of the department. The office may employ staff as necessary to carry out the office's duties as prescribed by this act, subject to the availability of amounts appropriated for this specific purpose.

(2) The purpose of the office is to leverage, support, and integrate with other state agencies to:

(a) Accelerate comprehensive market development with assistance along the entire life cycle of renewable fuel projects;

(b) Support research into and development and deployment of renewable fuel and electrolytic hydrogen production as well as distribution and end uses;

(c) Drive job creation, improve economic vitality, and support the transition to clean energy;

(d) Enhance resiliency by using renewable fuels and electrolytic hydrogen to support climate change mitigation and adaption; and

(e) Partner with overburdened communities to ensure communities equitably benefit from renewable and clean fuels efforts.

NEW SECTION. **Sec.**  A new section is added to chapter 43.330 RCW to read as follows:

(1) The office shall:

(a) Coordinate with local government, state agencies, federal agencies, private entities, the state's public four-year institutions of higher education, and others to facilitate and promote multi-institution collaborations to drive research, development, and deployment efforts in the production, distribution, and use of renewable fuels including, but not limited to, electrolytic hydrogen;

(b) Review existing renewable fuels and electrolytic hydrogen initiatives, policies, and public and private investments;

(c) 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;

(d) Assessopportunities for and barriers to deployment of renewable fuels and electrolytic hydrogen in hard to decarbonize sectors of the state economy;

(e) Request recommendations from the Washington state association of fire marshals regarding fire and other safety standards adopted by the United States department of energy and recognized national and international fire and safety code development authorities regarding renewable fuels and electrolytic hydrogen;

(f) By December 1, 2023, develop a plan and recommendations for consideration by the legislature and governor on renewable fuels and electrolytic hydrogen policy and public funding including, but not limited to, project permitting, state procurement, and pilot projects; and

(g) Encourage new and support existing public-private partnerships to increase coordinated planning and deployment of renewable fuels and electrolytic hydrogen.

(2) The office may take all appropriate steps to seek and apply for federal funds for which the office is eligible, and other grants, and accept donations, and must deposit these funds in the renewable fuels accelerator account created in section 104 of this act.

(3) In carrying out its duties, the office must collaborate with the department, the department of ecology, the department of transportation, the utilities and transportation commission, electric utilities in Washington state, the Washington State University extension energy program, and all other relevant state agencies.

(4) The office may cooperate with other state agencies in compiling data regarding the use of renewable fuels and electrolytic hydrogen in state operations, including motor vehicle fleets, the state ferry system, and nonroad equipment.

NEW SECTION. **Sec.**  A new section is added to chapter 43.330 RCW to read as follows:

The renewable fuels accelerator 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. Expenditures from the account may be used only for purposes designated in sections 102 and 103 of this act. Only the director or the director's designee may authorize expenditures from the account.

**Part 2**

**FEDERAL FUNDING**

NEW SECTION. **Sec.**  (1)(a) The legislature finds that the federal infrastructure investment and jobs act, P.L. 117-58, provides $8,000,000,000 over five years to support the development of regional clean hydrogen hubs. The federal infrastructure investment and jobs act requires the United States secretary of energy to establish a program to fund at least four regional hubs to aid in achieving a hydrogen fuel production carbon intensity standard provided in that legislation; to demonstrate the production, processing, delivery, storage, and end use of hydrogen; and that can be developed into a national network to facilitate a clean hydrogen economy. The federal infrastructure investment and jobs act requires the secretary of energy to select regional hubs that demonstrate a diversity of feedstocks, a diversity of end uses, and a diversity of geographic regions of the country. The federal infrastructure investment and jobs act requires the secretary of energy to solicit proposals for regional hubs by May 15, 2022, and to make selections of the hubs within one year after the deadline for submission of proposals.

(b) The legislature further finds that Washington state is strongly positioned to develop a regional clean energy hub meeting the criteria of the federal infrastructure investment and jobs act because the state:

(i) Has adopted a state energy strategy that recognizes hydrogen as an integral part of the state's decarbonization pathway;

(ii) Has an abundance of low cost, low carbon, reliable electricity as the primary energy resource for production of clean hydrogen;

(iii) Already has under construction the nation's first renewable hydrogen electrolyzer and has several hydrogen fueling facilities as well as production facilities in planning and design phases;

(iv) Has numerous industrial, maritime, and freight shipping concerns that are moving toward cleaner fuels and would help provide demand for hydrogen, as well as state and local governments currently considering hydrogen uses; and

(v) Has a demonstrated track record of building partnerships across the public and private sector to advance clean energy technologies.

(c) The legislature further finds that the state may help to promote and strengthen applications for regional hydrogen hub federal funding through state funding assistance to bring together multiple interests for the purpose of timely submitting applications to the United States secretary of energy for development of a regional hydrogen hub in Washington state.

(2) Subject to amounts appropriated for this specific purpose, the director of the department of commerce must seek to enter agreements with one or 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 state. If the director determines that a single agreement with an entity to prepare an application is more competitive for federal funding than supporting multiple applications, the director may not make more than one award of funding. The director shall seek to enter a funding agreement with an entity whose proposal demonstrates:

(a) A broad assembly of participants in developing and implementing the infrastructure of a regional hydrogen hub;

(b) That a strong and timely application will be submitted to the United States department of energy; and

(c) Commitments from manufacturing industries, transportation, utilities, and other sectors to incorporate hydrogen fuels into their transition to cleaner energy.

(3) In addition to the assistance in applying for federal funding provided through subsection (2) of this section, the legislature intends that the state fully support a regional clean energy hub in the state, including further direct financial assistance in developing the hub and the acquisition of hydrogen fuels for state agency and local government uses.

**Part 3**

**UTILITIES AND TRANSPORTATION COMMISSION REPORT**

NEW SECTION. **Sec.**  (1) By December 1, 2024, the utilities and transportation commission must submit to the appropriate committees of the senate and house of representatives a report addressing the following regarding advancing the production and use of hydrogen as an energy storage resource or fuel in the state:

(a) Whether the rates and services of hydrogen fuels distributed through natural gas distribution infrastructure is within the regulation of the utilities and transportation commission, or whether such jurisdiction should be assigned by the legislature as such regulation is provided for other public service companies, such as natural gas companies;

(b) Whether electric utilities regulated by the commission should analyze the costs and benefits of adopting special tariffs for the electrolytic production of hydrogen fuels;

(c) Recommended standards, including safety standards, for blending of nonfossil feedstock hydrogen into natural gas distribution infrastructure; and

(d) The role that nonfossil feedstock hydrogen may serve as the state reduces greenhouse gas emissions from fossil natural gas, including findings and recommendations included in the commission's decarbonization inquiry required under section 143, chapter 334, Laws of 2021.

(2) This section expires June 30, 2025.

**Part 4**

**ELECTROLYTIC HYDROGEN**

**Sec.**  RCW 80.50.020 and 2021 c 317 s 17 are each amended to read as follows:

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Alternative energy resource" includes energy facilities of the following types: (a) Wind; (b) solar energy; (c) geothermal energy; (d) ((~~landfill~~)) renewable natural gas; (e) wave or tidal action; ((~~or~~)) (f) biomass energy based on solid organic fuels from wood, forest, or field residues, or dedicated energy crops that do not include wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenic; (g) renewable or electrolytic hydrogen; or (h) a storage facility.

(2) "Applicant" means any person who makes application for a site certification pursuant to the provisions of this chapter.

(3) "Application" means any request for approval of a particular site or sites filed in accordance with the procedures established pursuant to this chapter, unless the context otherwise requires.

(4) "Associated facilities" means storage, transmission, handling, or other related and supporting facilities connecting an energy plant with the existing energy supply, processing, or distribution system, including, but not limited to, communications, controls, mobilizing or maintenance equipment, instrumentation, and other types of ancillary transmission equipment, off-line storage or venting required for efficient operation or safety of the transmission system and overhead, and surface or subsurface lines of physical access for the inspection, maintenance, and safe operations of the transmission facility and new transmission lines constructed to operate at nominal voltages of at least 115,000 volts to connect a thermal power plant or alternative energy facilities to the northwest power grid. However, common carrier railroads or motor vehicles shall not be included.

(5) "Biofuel" means a liquid or gaseous fuel derived from organic matter intended for use as a transportation fuel including, but not limited to, biodiesel, renewable diesel, ethanol, renewable natural gas, and renewable propane.

(6) "Certification" means a binding agreement between an applicant and the state which shall embody compliance to the siting guidelines, in effect as of the date of certification, which have been adopted pursuant to RCW 80.50.040 as now or hereafter amended as conditions to be met prior to or concurrent with the construction or operation of any energy facility.

(7) "Construction" means on-site improvements, excluding exploratory work, which cost in excess of two hundred fifty thousand dollars.

(8) "Council" means the energy facility site evaluation council created by RCW 80.50.030.

(9) "Counsel for the environment" means an assistant attorney general or a special assistant attorney general who shall represent the public in accordance with RCW 80.50.080.

(10) "Electrical transmission facilities" means electrical power lines and related equipment.

(11) "Energy facility" means an energy plant or transmission facilities: PROVIDED, That the following are excluded from the provisions of this chapter:

(a) Facilities for the extraction, conversion, transmission or storage of water, other than water specifically consumed or discharged by energy production or conversion for energy purposes; and

(b) Facilities operated by and for the armed services for military purposes or by other federal authority for the national defense.

(12) "Energy plant" means the following facilities together with their associated facilities:

(a) Any nuclear power facility where the primary purpose is to produce and sell electricity;

(b) Any nonnuclear stationary thermal power plant with generating capacity of ((~~three hundred fifty thousand~~)) 350,000 kilowatts or more, measured using maximum continuous electric generating capacity, less minimum auxiliary load, at average ambient temperature and pressure, and floating thermal power plants of ((~~one hundred thousand~~)) 100,000 kilowatts or more suspended on the surface of water by means of a barge, vessel, or other floating platform;

(c) Facilities which will have the capacity to receive liquefied natural gas in the equivalent of more than ((~~one hundred million~~)) 100,000,000 standard cubic feet of natural gas per day, which has been transported over marine waters;

(d) Facilities which will have the capacity to receive more than an average of ((~~fifty thousand~~)) 50,000 barrels per day of crude or refined petroleum or liquefied petroleum gas which has been or will be transported over marine waters, except that the provisions of this chapter shall not apply to storage facilities unless occasioned by such new facility construction;

(e) Any underground reservoir for receipt and storage of natural gas as defined in RCW 80.40.010 capable of delivering an average of more than ((~~one hundred million~~)) 100,000,000 standard cubic feet of natural gas per day;

(f) Facilities capable of processing more than ((~~twenty-five thousand~~)) 25,000 barrels per day of petroleum or biofuel into refined products except where such biofuel production is undertaken at existing industrial facilities; and

(g) Facilities capable of producing more than ((~~one thousand five hundred~~)) 1,500 barrels per day of refined biofuel but less than ((~~twenty-five thousand~~)) 25,000 barrels of refined biofuel.

(13) "Independent consultants" means those persons who have no financial interest in the applicant's proposals and who are retained by the council to evaluate the applicant's proposals, supporting studies, or to conduct additional studies.

(14) "Land use plan" means a comprehensive plan or land use element thereof adopted by a unit of local government pursuant to chapter 35.63, 35A.63, 36.70, or 36.70A RCW, or as otherwise designated by chapter 325, Laws of 2007.

(15) "Person" means an individual, partnership, joint venture, private or public corporation, association, firm, public service company, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

(16) "Preapplicant" means a person considering applying for a site certificate agreement for any transmission facility.

(17) "Preapplication process" means the process which is initiated by written correspondence from the preapplicant to the council, and includes the process adopted by the council for consulting with the preapplicant and with cities, towns, and counties prior to accepting applications for all transmission facilities.

(18) "Secretary" means the secretary of the United States department of energy.

(19) "Site" means any proposed or approved location of an energy facility, alternative energy resource, or electrical transmission facility.

(20) "Thermal power plant" means, for the purpose of certification, any electrical generating facility using any fuel for distribution of electricity by electric utilities.

(21) "Transmission facility" means any of the following together with their associated facilities:

(a) Crude or refined petroleum or liquid petroleum product transmission pipeline of the following dimensions: A pipeline larger than six inches minimum inside diameter between valves for the transmission of these products with a total length of at least ((~~fifteen~~)) 15 miles;

(b) Natural gas, synthetic fuel gas, or liquefied petroleum gas transmission pipeline of the following dimensions: A pipeline larger than ((~~fourteen~~)) 14 inches minimum inside diameter between valves, for the transmission of these products, with a total length of at least ((~~fifteen~~)) 15 miles for the purpose of delivering gas to a distribution facility, except an interstate natural gas pipeline regulated by the United States federal power commission.

(22) "Zoning ordinance" means an ordinance of a unit of local government regulating the use of land and adopted pursuant to chapter 35.63, 35A.63, 36.70, or 36.70A RCW or Article XI of the state Constitution, or as otherwise designated by chapter 325, Laws of 2007.

(23)(a) "Electrolytic hydrogen" means hydrogen produced through electrolysis.

(b) "Electrolytic hydrogen" does not include hydrogen manufactured using steam reforming or any other conversion technology that produces hydrogen from a fossil fuel feedstock.

(24) "Renewable hydrogen" means hydrogen produced using renewable resources both as the source for the hydrogen and the source for the energy input into the production process.

(25) "Renewable natural gas" means a gas consisting largely of methane and other hydrocarbons derived from the decomposition of organic material in landfills, wastewater treatment facilities, and anaerobic digesters.

(26) "Storage facility" means a facility to: (a) Accept electricity as an energy source and uses a chemical, thermal, mechanical, or other process to store energy for subsequent delivery or consumption in the form of electricity; or (b) store renewable hydrogen or green electrolytic hydrogen for subsequent delivery or consumption.

**Sec.**  RCW 54.04.190 and 2019 c 24 s 1 are each amended to read as follows:

(1) In addition to any other authority provided by law, public utility districts are authorized to produce and distribute biodiesel, ethanol, and ethanol blend fuels, including entering into crop purchase contracts for a dedicated energy crop for the purpose of generating electricity or producing biodiesel produced from Washington feedstocks, cellulosic ethanol, and cellulosic ethanol blend fuels for use in internal operations of the electric utility and for sale or distribution.

(2) In addition to any other authority provided by law:

(a) Public utility districts are authorized to produce renewable natural gas, electrolytic hydrogen, and renewable hydrogen and utilize the renewable natural gas, electrolytic hydrogen, or renewable hydrogen they produce for internal operations.

(b) Public utility districts may sell renewable natural gas, electrolytic hydrogen, or renewable hydrogen that is delivered into a gas transmission pipeline located in the state of Washington or delivered in pressurized containers:

(i) At wholesale;

(ii) To an end-use customer; or

(iii) If delivered in a pressurized container, or if the end-use customer takes delivery of the renewable natural gas, electrolytic hydrogen, or renewable hydrogen through a pipeline, and the end-use customer is an eligible purchaser of natural gas from sellers other than the gas company from which that end-use customer takes transportation service and:

(A) When the sale is made to an end-use customer in the state of Washington, the sale is made pursuant to a transportation tariff approved by the Washington utilities and transportation commission; or

(B) When the sale to an end-use customer is made outside of the state of Washington, the sale is made pursuant to a transportation tariff approved by the state agency which regulates retail sales of natural gas.

(c) Public utility districts may sell renewable natural gas, electrolytic hydrogen, or renewable hydrogen at wholesale or to an end-use customer through a pipeline directly from renewable natural gas, electrolytic hydrogen, or renewable hydrogen production facilities to facilities that compress, liquefy, or dispense compressed natural gas, liquefied natural gas, electrolytic hydrogen, or renewable hydrogen fuel for end use as a transportation fuel.

(d) Public utility districts may sell electrolytic hydrogen or renewable hydrogen at wholesale or to an end-use customer in pressurized containers directly from electrolytic hydrogen or renewable hydrogen production facilities to facilities that utilize electrolytic hydrogen or renewable hydrogen as a nonutility related input for a manufacturing process.

(3) Except as provided in subsection (2)(b)(iii) of this section, nothing in this section authorizes a public utility district to sell renewable natural gas, electrolytic hydrogen, or renewable hydrogen delivered by pipeline to an end-use customer of a gas company.

(4)(a) Except as provided in this subsection (4), nothing in this section authorizes a public utility district to own or operate natural gas distribution pipeline systems used to serve retail customers.

(b) For the purposes of subsection (2)(b) of this section, public utility districts are authorized to own and operate interconnection pipelines that connect renewable natural gas, electrolytic hydrogen, or renewable hydrogen production facilities to gas transmission pipelines.

(c) For the purposes of subsection (2)(c) of this section, public utility districts may own and/or operate pipelines to supply, and/or compressed natural gas, liquefied natural gas, electrolytic hydrogen, or renewable hydrogen facilities to provide, renewable natural gas, electrolytic hydrogen, or renewable hydrogen for end use as a transportation fuel if all such pipelines and facilities are located in the county in which the public utility district is authorized to provide utility service.

(5) Exercise of the authorities granted under this section to public utility districts does not subject them to the jurisdiction of the utilities and transportation commission, except that public utility districts are subject only to administration and enforcement by the commission of state and federal requirements related to pipeline safety and fees payable to the commission that are applicable to such administration and enforcement.

(6) The definitions in this subsection apply throughout this section unless the context clearly requires otherwise.

(a) "Electrolytic hydrogen" means 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.

(b) "Renewable natural gas" means a gas consisting largely of methane and other hydrocarbons derived from the decomposition of organic material in landfills, wastewater treatment facilities, and anaerobic digesters.

((~~(b)~~)) (c) "Renewable hydrogen" means hydrogen produced using renewable resources both as the source for the hydrogen and the source for the energy input into the production process.

((~~(c)~~)) (d) "Renewable resource" means: (i) Water; (ii) wind; (iii) solar energy; (iv) geothermal energy; (v) renewable natural gas; (vi) renewable hydrogen; (vii) wave, ocean, or tidal power; (viii) biodiesel fuel that is not derived from crops raised on land cleared from old growth or first growth forests; or (ix) biomass energy.

((~~(d)~~)) (e) "Gas company" has the same meaning as in RCW 80.04.010.

**Sec.**  RCW 35.92.050 and 2002 c 102 s 3 are each amended to read as follows:

A city or town may also construct, condemn and purchase, purchase, acquire, add to, alter, maintain, and operate works, plants, facilities for the purpose of furnishing the city or town and its inhabitants, and any other persons, with gas, electricity, electrolytic hydrogen as defined in RCW 54.04.190, renewable hydrogen as defined in RCW 54.04.190, and other means of power and facilities for lighting, including streetlights as an integral utility service incorporated within general rates, heating, fuel, and power purposes, public and private, with full authority to regulate and control the use, distribution, and price thereof, together with the right to handle and sell or lease, any meters, lamps, motors, transformers, and equipment or accessories of any kind, necessary and convenient for the use, distribution, and sale thereof; authorize the construction of such plant or plants by others for the same purpose, and purchase gas, electricity, or power from either within or without the city or town for its own use and for the purpose of selling to its inhabitants and to other persons doing business within the city or town and regulate and control the use and price thereof.

**Part 5**

**MISCELLANEOUS**

NEW SECTION. **Sec.**  Sections 104 and 201 of this act are necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and take effect immediately.

NEW SECTION. **Sec.**  If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

**--- END ---**