

HOUSE BILL REPORT

ESSB 5447

As Reported by House Committee On:
Environment & Energy

Title: An act relating to promoting the alternative jet fuel industry in Washington.

Brief Description: Promoting the alternative jet fuel industry in Washington.

Sponsors: Senate Committee on Environment, Energy & Technology (originally sponsored by Senators Billig, King, Nguyen, MacEwen, Mullet, Wellman, Gildon, Keiser, Shewmake, Lovick, Boehnke, Warnick, Randall, Conway, Dhingra, Dozier, Liias, Lovelett, Saldaña, Stanford, Van De Wege and Wagoner).

Brief History:

Committee Activity:

Environment & Energy: 3/13/23, 3/21/23 [DPA].

Brief Summary of Engrossed Substitute Bill
(As Amended By Committee)

- Requires the Department of Ecology (Ecology) to allow one or more carbon intensity pathways for alternative jet fuel by no later than December 31, 2023.
- Requires the University of Washington, in collaboration with Washington State University, to calculate emissions of ultrafine and fine particulate matter and sulfur dioxides for alternative jet fuels used from an international airport owned by a port district in a county with a population greater than 1.5 million.
- Creates a preferential business and occupation (B&O) tax rate of 0.275 percent for the manufacturing and wholesaling of alternative jet fuels.
- Establishes a B&O and public utilities tax credit for certain sales and purchases of alternative jet fuel.
- Provides that the tax incentives begin when one or more facilities in the

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state begin to produce a cumulative 20 million or more gallons of alternative jet fuel per year.

HOUSE COMMITTEE ON ENVIRONMENT & ENERGY

Majority Report: Do pass as amended. Signed by 15 members: Representatives Doglio, Chair; Mena, Vice Chair; Dye, Ranking Minority Member; Ybarra, Assistant Ranking Minority Member; Abbarno, Barnard, Berry, Couture, Duerr, Fey, Goehner, Lekanoff, Ramel, Slatter and Street.

Staff: Robert Hatfield (786-7117).

Background:

Work Group Report.

In 2021 the Legislature reestablished the Sustainable Aviation Biofuels Work Group. It was convened by the Washington State University Office of Clean Technology, now known as the Office of National Laboratory Partnerships, and provided a report including pertinent recommendations to the Governor and Legislature on December 1, 2022.

Clean Fuels Program.

As of January 2023 the Department of Ecology has adopted rules and begun implementing a Clean Fuels Program (CFP) limiting the greenhouse gas (GHG) emissions attributable to each unit of transportation fuel (carbon intensity) to 20 percent below 2017 levels by 2038. Electricity and liquid and gaseous fuels are within the scope of the CFP, so long as the fuels or electricity are used to propel motor vehicles or are intended for transportation purposes.

The CFP establishes standards for assigning GHG emissions attributable to transportation fuels based on a lifecycle analysis that considers emissions from the production, storage, transportation, and combustion of the fuels, and associated changes in land use.

Applications for specific fuel pathways that describe in detail all stages of a fuel's production must be evaluated by Ecology in order for a carbon intensity for the fuel to be calculated. Under the CFP rule, separate carbon intensity standards are established for gasoline and its substitutes and diesel and its substitutes. The CFP functions by assigning bankable, tradeable credits for the production, import, or dispensation for use of transportation fuels with associated lifecycle GHG emissions that are less than the 2017 baseline carbon intensity levels for gasoline or diesel established by Ecology, or when other specified activities are undertaken that support the reduction of GHG emissions associated with transportation in Washington.

Certain specified fuels, including transportation fuel used for the propulsion of aircraft, are exempt from CFP carbon intensity reduction requirements, but are eligible to generate

credits when such fuels have a carbon intensity less than the carbon intensity standards established for gasoline or diesel.

As part of the calculation of the carbon intensity of a fuel, the CFP factors in an energy economy ratio (EER), which is a dimensionless value that represents the efficiency of a fuel as used in a powertrain as compared to a reference fuel used in the same powertrain, which are often expressed as a comparison of miles per gasoline gallon equivalent between two fuels. For example, electricity used in a battery electric vehicle is assigned an EER of 3.4 relative to a gasoline-powered vehicle in the CFP rule because the powertrain of a battery electric vehicle is relatively more efficient at converting the same amount of energy into vehicular movement than a gasoline fuel engine. A forklift with a powertrain using a liquid propane gas fuel source is assigned a 0.9 EER because that fuel and vehicle combination is less efficient at using the same amount of stored energy as compared to a gasoline vehicle engine. Alternative jet fuel, which is a fuel made from petroleum or nonpetroleum sources that can be blended and used with conventional petroleum jet fuels without the need to modify aircraft engines and existing fuel distribution infrastructure, is assigned an EER of 1.0, and may earn credits under the CFP if it has a carbon intensity less than the baseline carbon intensity standard for diesel fuel and diesel substitutes.

Statewide Office of Renewable Fuels.

In 2022 the Statewide Office of Renewable Fuels (Office) was established within the Department of Commerce to leverage, support, and integrate with other state agencies to carry out specified statutory duties such as driving job creation, improving economic vitality, and supporting the transition to clean energy. The Office must meet specified requirements such as coordinating with certain entities and assessing opportunities for and barriers to deployment of renewable fuels and green electrolytic hydrogen in hard-to-decarbonize sectors of the state economy.

Business and Occupation Tax.

Washington's major business tax is the business and occupation (B&O) tax. The B&O tax is imposed on the gross receipts of business activities conducted within the state, without any deduction for the costs of doing business. A taxpayer may have more than one B&O tax rate, depending on the types of activities conducted. Major B&O tax rates are 0.471 percent for retailing; 0.484 percent for manufacturing, wholesaling, and extracting; and for services and activities not classified elsewhere, 1.5 percent for businesses with taxable annual income of less than \$1 million and 1.75 percent for businesses with taxable annual income of \$1 million or more. Several preferential rates also apply to specific business activities.

Public Utility Tax.

The gross income derived from the operation of publicly and privately owned utilities is subject to the public utility tax (PUT). These utilities include businesses that engage in transportation, communications, and the supply of water and energy. The tax is imposed in lieu of the B&O tax and is applied only on sales to consumers. Other income of the utility,

such as the retail sale of tangible personal property, is subject to the B&O tax.

Tax Preferences.

State law provides for a range of tax preferences that confer reduced tax liability for a designated class of taxpayer. Tax preferences include tax credits, deductions, exemptions, preferential tax rates, and deferrals. Washington has over 700 tax preferences. Legislation that establishes or expands a tax preference must include a tax preference performance statement that identifies the public policy objective of the preference, as well as specific metrics the Joint Legislative Audit and Review Committee can use to evaluate the effectiveness of the preference. All new tax preferences automatically expire after 10 years unless an alternative expiration date is provided.

Summary of Amended Bill:

Carbon Intensity Pathways.

By no later than December 31, 2023, the Department of Ecology (Ecology) must allow one or more carbon intensity pathways within the Clean Fuels Program for alternative jet fuel. Ecology must:

- allow biomethane to be claimed as feedstock for renewable diesel and alternative jet fuel consistent with that allowable for compressed natural gas, liquified natural gas, liquified compressed natural gas, or hydrogen production; and
- notify the Department of Revenue (DOR) within 30 days when one or more facilities capable of producing a cumulative production capacity of at least 20 million gallons of alternative jet fuel each year is operating in the state.

Ecology must include, in its annual report related to the Clean Fuels Program, information that includes the amount, generation date, and geographic origin of renewable thermal certificates representing the biomethane environmental attributes associated with biomethane used as the feedstock for renewable diesel and alternative jet fuel.

Work Group.

Washington State University must convene an Alternative Jet Fuels Work Group to further the development of alternative jet fuels as a productive industry in the state. Membership includes legislators and sectors involved in alternative jet fuel research, development, production, and utilization. The work group must provide a report including pertinent recommendations to the Governor and the appropriate committees of the Legislature by December 1, 2024, and December 1 of every even-numbered year through December 1, 2028. The work group expires January 1, 2029.

Statewide Office of Renewable Fuels.

In addition to current statutory purposes, the statewide office of renewable fuels must further the development and use of alternative jet fuels as a productive industry in the state. In carrying out its duties, the office must also consider alternative jet fuels, review certain

tax and regulatory incentives, and collaborate with the Alternative Jet Fuels Work Group.

Report on Airport Emissions.

The University of Washington's Department of Environmental and Occupational Health, in collaboration with Washington State University, must calculate emissions of ultrafine and fine particulate matter and sulfur oxides from the use of alternative jet fuel as compared to conventional fossil jet fuel, including the potential regional air quality benefits of any reduction. This emissions calculation must be conducted for alternative jet fuel used from an international airport owned by a port district in a county with a population greater than 1.5 million. This information must be reported to the Joint Legislative Audit and Review Committee (JLARC) by December 1, 2024, and by December 1 annually thereafter until JLARC has completed its final report on the alternative jet fuel tax incentives created in this act.

To facilitate the emissions calculation, an international airport owned by a port district in a county with a population greater than 1.5 million must report to the University of Washington the total annual volume of conventional and alternative jet fuels used for flights departing the airport by July 1, 2024, and by July 1 every year thereafter until JLARC has completed its final report on the alternative jet fuel tax incentives created in the act.

Alternative Jet Fuel—Tax Rates and Tax Incentives.

The manufacturing and wholesaling of alternative jet fuel is subject to a preferential business and occupation (B&O) tax rate of 0.275 percent. The preferential tax rate begins after the DOR receives notification from Ecology that there are one or more facilities operating in the state with a cumulative production capacity of at least 20 million gallons of alternative jet fuel per year. The preferential tax rate lasts for 10 years.

Certain tax credits are created for the manufacture, sale, purchase, and use of alternative jet fuel. Such tax credits may not be claimed until Ecology verifies that there are one or more facilities operating in the state with a cumulative production capacity of at least 20 million gallons of alternative jet fuel per year.

The preferential tax rate and tax credits are subject to review by JLARC. The automatic 10-year expiration for tax preferences does not apply to this act.

Business and Occupation Tax Credit for Sales of Alternative Jet Fuel.

A B&O credit is available for certain sales of alternative jet fuel. The amount of the credit is \$1 per gallon of alternative jet fuel that has at least 50 percent less carbon dioxide equivalent emissions than conventional jet fuel. The credit amount increases by \$0.02 for each additional 1 percent reduction in carbon dioxide equivalent emissions beyond 50 percent. The credit may not exceed \$2 per gallon of alternative jet fuel.

Eligibility for the credit for sales of alternative jet fuel is limited to businesses that produce alternative jet fuel located in a qualifying county, or a business's designated alternative jet

fuel blender located in Washington. A qualifying county is a county that has a population less than 650,000.

Contract pricing for sales of alternative jet fuel between a person claiming the credit and the final consumer must be adjusted to reflect the per gallon credit.

Business and Occupation Tax Credit for Purchases of Alternative Jet Fuel.

A B&O credit is also available for certain purchases of alternative jet fuel. The credit is equal to \$1 for each gallon of alternative jet fuel that has at least 50 percent less carbon dioxide equivalent emissions than conventional jet fuel. The credit amount increases by \$0.02 for each additional 1 percent reduction in carbon dioxide equivalent emissions beyond 50 percent. The credit may not exceed \$2 per gallon of alternative jet fuel.

Credits may be earned only on purchases of alternative jet fuel for flights departing in Washington.

Public Utility Tax Credit for Use of Alternative Jet Fuel.

A credit is allowed against the public utility tax (PUT) otherwise due for persons engaged in the use of alternative jet fuel. The credit is equal to \$1 for each gallon of alternative jet fuel that has at least 50 percent less carbon dioxide equivalent emissions than conventional jet fuel. The credit amount increases by \$0.02 for each additional 1 percent reduction in carbon dioxide equivalent emissions beyond 50 percent. The credit may not exceed \$2 per gallon of alternative jet fuel.

A person may not receive an alternative jet fuel PUT tax credit for amounts of alternative jet fuel claimed as credits for purposes of the B&O tax credit.

Definitions.

"Alternative jet fuel" is defined as a fuel that can be blended and used with conventional petroleum jet fuels without the need to modify aircraft engines and existing fuel distribution infrastructure, and that has a lower carbon intensity than the applicable annual carbon intensity standard in Table 2 of WAC 173-424-900. Alternative jet fuel includes jet fuels derived from coprocessed feedstocks at a conventional petroleum refinery.

Amended Bill Compared to Engrossed Substitute Bill:

The striking amendment modifies the definition of "alternative jet fuel" to remove references to "petroleum or nonpetroleum sources."

The striking amendment requires the Clean Fuels Program report produced by the Department of Ecology to include the amount, generation date, and geographic origin of renewable thermal certificates representing the biomethane environmental attributes claimed in connection with certain alternative fuels.

The striking amendment modifies certain aspects of the air quality study called for in the act, including that the emissions calculation must be conducted for alternative jet fuel used from an international airport owned by a port district in a county with a population greater than 1.5 million, and that the University of Washington must produce the report in collaboration with Washington State University.

The striking amendment strikes the section related to transfers of funds to the state general fund from accounts created pursuant to the Climate Commitment Act.

Appropriation: None.

Fiscal Note: Available.

Effective Date of Amended Bill: Sections 1 through 7 of the bill contain an emergency clause and take effect on July 1, 2023. The remainder of the bill contains multiple effective dates. Please see the bill.

Staff Summary of Public Testimony:

(In support) Air travel is a significant contributor to greenhouse gas emissions, and sustainable aviation fuel is the best way to reduce carbon emissions from air travel. Not only does sustainable aviation fuel help achieve decarbonization benefits, it also provides other benefits, including reducing ultrafine particulate emissions near airports. Sustainable aviation fuel (SAF) is also a significant creator of jobs. This bill represents the promise of the green economy; it offers economic, health, and environmental benefits. Washington has unique attributes that would help make it a leader in sustainable aviation fuels; it has a robust aviation sector, it is home to almost every possible sustainable aviation fuels feedstock, it is home to multiple military bases, and Washington State University (WSU) is one of the Federal Aviation Administration centers of excellence for sustainable aviation fuels. The one thing the state does not yet have is a sustainable aviation fuels production facility.

Washington is in the midst of a clean energy transition. Commercial leaders are setting decarbonization goals that rely on the availability of alternative energy sources like SAF. The bill takes the critical step of incentivizing the production of SAF in Washington. The Port of Seattle has set a goal that 10 percent of the fuel used for flights departing Seattle-Tacoma International Airport in 2028 be SAF. Commercial airlines are ready to use SAF, and local producers are ready to produce it.

The bill will create new family-wage jobs and will reaffirm this region as the epicenter of aerospace innovation.

Washington is one of the greenest and most innovative states. Washington is a natural

leader in SAF. Sustainable aviation fuel remains considerably more expensive than traditional jet fuel.

As the state works toward a green economy, the state also needs to ensure that working families are at the forefront of that transition.

Aviation accounts for almost 10 percent of the state's greenhouse gas emissions. There are some concerns with the interplay between this bill and the Clean Fuels Program. There should be language added to ensure better tracking and reporting.

The bill requires the Department of Ecology to certify new carbon intensity pathways for SAF by 2023.

Section 4 of the bill codifies the SAF work group. The work group has proved to be a valuable asset to stakeholders in the SAF industry. The work group represents a highly engaged network of stakeholders. Washington State University has produced three reports so far based on the work of the SAF work group. There is work underway on an amendment to have the air quality study performed by the University of Washington, not WSU.

Washington has deep intellectual and construction talent in the refining and manufacturing sectors of the economy. As the state transitions to a cleaner economy, there is a need to take advantage of opportunities to provide stability to the construction industry. The bill does not need additional labor standards because those standards are already in place via other recently passed laws.

The bill sends a clear signal that Washington wants SAF used and produced in Washington.

It takes three years to construct a SAF facility, 400 people to build it, and about 80 people to operate it. Globally, this is one of the most significant pieces of legislation on SAF around the world. The world is at the early stage of the commercialization of this technology. The industry has to get past the uniqueness stage and get to the ubiquity stage in order for lenders to be more comfortable providing financing to SAF manufacturers.

The state needs to eliminate the carbon impacts associated with flying. Changing the aircraft is not enough; there also needs to be a change in the fuel that is burned in the engine. The nation will need 3 billion gallons of SAF by 2030 if the nation is going to increase use of SAF to the airline industry's goal of 10 percent of the fuel consumed in the United States. The nation will essentially need to double its annual production of SAF every year between now and 2030 to meet that goal.

Sustainable aviation fuel has the greatest potential to make a real difference over the next decade in airplane emissions. The cost of SAF is a significant barrier to widespread adoption of SAF.

The future of energy is low carbon fuels. Washington recently took an important step forward by passing the Climate Commitment Act and a bill establishing a low carbon fuel standard. Aviation is the transportation sector that has been hardest to decarbonize. This is the right place and the right time to commit to SAF.

Sustainable aviation fuel supports a reduction of particulate emissions. It is a good idea to establish a SAF pathway within the Clean Fuels Program because this will allow for the generation of credits for SAF.

One company intends to build Washington's first SAF project near Moses Lake. The bill will help ensure an SAF production facility comes online in Washington.

(Opposed) A bill is not a climate bill unless it actually reduces greenhouse gas emissions. This bill calls for processing by companies that have shown in the past that they are not committed to addressing climate change. These are more likely to be replacement jobs, rather than new jobs. Research has shown that at the tailpipe, carbon dioxide emissions are the same for SAF as for conventional fuels.

This is not a climate bill and it is not an equity bill, despite good intentions. There are many arguments against the bill, most notably that it gives public funds to a private industry. Even if SAF makes up 10 percent of the fuel used by commercial jets, that still means that 90 percent of the fuel used by commercial jets is fossil fuel, which pollutes the atmosphere.

Persons Testifying: (In support) Senator Andy Billig, prime sponsor; Joel Creswell, Department of Ecology; Donny Donovan, International Association of Machinists and Aerospace Workers 751; Mark Riker, Washington State Building and Construction Trades Council; Leah Missik, Climate Solutions; Dana Debel, Delta Airlines; Scott Kennedy, Alaska Airlines; Mike Ennis, Association of Washington Business; Eric ffitich, Washington Public Ports Association; Lars Ericksen, Seattle Metropolitan Chamber of Commerce; Ryan Calkins, Port of Seattle; Darrin Morgan, SkyNRG; Tom Wolf, BP America; Derek Phelps, Twelve; Peter Dahling; Andrew Troske, Parr Pacific; and Connor Haggerty, Washington State University.

(Opposed) Ursula Euler; and Anne Kroeker.

Persons Signed In To Testify But Not Testifying: None.