
A BILL FOR AN ACT

RELATING TO TRANSPORTATION.

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

1 SECTION 1. The legislature finds that transportation is
2 the State's largest source of lifecycle greenhouse gas emissions
3 and that the tourism industry is the State's largest economic
4 driver and biggest transportation sector consumer. The
5 legislature further finds that better management of waste and
6 resources is critical to environmental stewardship and a clean
7 fuel standard is central to reducing the State's lifecycle
8 greenhouse gas emissions while also protecting the State's
9 economic competitiveness, public health, and the environment.
10 To prompt the use of clean fuels and zero-emission vehicles,
11 other states like California, Oregon, and Washington have
12 successfully implemented programs that reduce the carbon
13 intensity of their transportation fuels.

14 The legislature also finds that without policy specific to
15 the transportation sector, emissions reductions will not be
16 achieved in a timeframe consistent with the State's goals.
17 Therefore, a clean fuel standard that is technology-neutral and



1 market-based is an effective policy for reducing emissions in
2 the transportation sector while also achieving other
3 co-benefits.

4 The legislature additionally finds that by creating a clean
5 fuel standard that rewards environmental performance, the State
6 will incentivize the creation of jobs in various sectors,
7 including construction, agriculture, waste management, landscape
8 restoration, forestry, and transportation. A clean fuel
9 standard can create new markets for what is usually considered
10 waste, including but not limited to municipal solid waste;
11 construction and demolition debris; used cooking oil from food
12 processing; agricultural and forestry residuals; industrial
13 emissions; invasive species biomass from landscape restoration
14 projects; and renewable electricity. Furthermore, the demand
15 created for alternative fuels and cleaner forms of mobility
16 under a clean fuel standard will not only help reduce greenhouse
17 gas emissions but may also have a co-benefit of reducing air
18 pollution, improving the health of citizens of the State.

19 It is the intent of the legislature to support the
20 deployment of clean transportation fuel technologies through a



1 carefully designed program that reduces the carbon intensity of
2 fuel used in the State to:

- 3 (1) Reduce lifecycle greenhouse gas emissions;
- 4 (2) Stimulate the local, state, and regional economies,
5 thereby providing economic development;
- 6 (3) Promote public and environmental health by increasing
7 sustainability and encouraging a circular economy and
8 landscape restoration activities; and
- 9 (4) Support existing jobs in the clean fuel industry and
10 create new jobs in new innovative clean fuel
11 technologies.

12 Therefore, the purpose of this Act is to require the
13 department of transportation to adopt rules governing a clean
14 fuel standard for alternative fuels in the State.

15 SECTION 2. (a) The department of transportation shall
16 adopt rules pursuant to chapter 91, Hawaii Revised Statutes,
17 governing a clean fuel standard for alternative fuels in the
18 State. The rules shall include:

- 19 (1) A schedule to phase-in the implementation of the clean
20 fuel standard for alternative fuels in a manner that
21 reduces the average carbon intensity by at least ten



- 1 per cent below 2019 levels by 2035 and at least fifty
2 per cent below 2019 levels by 2045, including the
3 establishment of annual carbon intensity standards for
4 alternative fuels;
- 5 (2) An implementation date for the clean fuel standard for
6 diesel and gasoline on or before January 1, 2027;
- 7 (3) Standards for measuring lifecycle greenhouse gas
8 emissions using Argonne National Lab's GREET model
9 attributable to the production and use of diesel,
10 gasoline, and other alternative fuels throughout their
11 lifecycles, including feedstock production or
12 extraction, fuel production, and the transportation of
13 raw materials and finished fuels;
- 14 (4) A mechanism by which diesel and gasoline that have a
15 carbon intensity below the annual carbon intensity
16 standard are used within the State to generate
17 credits;
- 18 (5) A mechanism by which alternative fuel that has a
19 carbon intensity below the annual carbon intensity
20 standard is used within the State to generate credits;



- 1 (6) A mechanism to adjust the carbon intensity of
2 alternative fuel when the alternative fuel is used in
3 a powertrain that is not equal in efficiency to that
4 of the reference fuel and drivetrain combination;
- 5 (7) A mechanism by which diesel or gasoline that has a
6 carbon intensity above the annual carbon intensity
7 standard would generate a deficit;
- 8 (8) A mechanism by which an alternative fuel that has a
9 carbon intensity above the annual carbon intensity
10 standard would generate a deficit;
- 11 (9) A mechanism that requires diesel, gasoline, or other
12 alternative fuel that is exported from the State to
13 retire any associated credit or debit;
- 14 (10) Exemptions for diesel, gasoline, or other fuels used
15 by aircraft, railroad locomotives, military vehicles,
16 and interstate waterborne vessels;
- 17 (11) Procedures for verifying credits and deficits
18 generated under the clean fuel standard; and
- 19 (12) A schedule by which the department of transportation
20 shall review and update the lifecycle greenhouse gas



1 modeling every three years based on a review of the
2 best available scientific literature.

3 (b) The department of transportation may adopt rules that
4 include:

5 (1) A cost containment mechanism designed to allow for
6 sufficient compliance flexibility and maximum
7 greenhouse gas reductions;

8 (2) Mechanisms whereby an electric utility or an energy
9 producer can generate credits for electricity for
10 gaseous fuels used in transportation; provided that
11 the department of transportation shall develop these
12 mechanisms based on best practices in use in other
13 states and in consultation with industry stakeholders;

14 (3) Mechanisms whereby exempt end-uses, such as aviation,
15 marine, rail, and military, can opt in to the program
16 to generate credits when using alternative fuel;

17 (4) Mechanisms whereby alternative fuel users can opt in
18 to the clean fuel program to generate credits when it
19 displaces the combustion of gasoline or diesel in
20 off-road, heating, cooling, and temporary power
21 generation;



- 1 (5) A schedule to phase in the implementation of the
2 standards for alternative fuels that have achieved a
3 predominant market share and have an average carbon
4 intensity that exceeds the annual diesel or gasoline
5 carbon intensity standard;
- 6 (6) A program to support the deployment of infrastructure
7 for the distribution of electricity as a vehicle fuel
8 based on a mechanism by which not more than per
9 cent of the annual deficits can be allocated;
- 10 (7) A program to support the deployment of new
11 technologies and infrastructure for the distribution
12 or production of liquid or gaseous alternative fuels
13 based on a mechanism by which not more than per
14 cent of the annual deficits can be allocated;
- 15 (8) Any standards, specifications, testing requirements,
16 and other measures as needed to ensure the quality of
17 gasoline, diesel, and alternative fuels used in
18 accordance with the clean fuel standard;
- 19 (9) Linking the clean fuel standard to similar policies in
20 other jurisdictions, including but not limited to
21 California, Oregon, and Washington;



- 1 (10) A method to utilize the carbon intensity pathways
2 already approved in other states like California,
3 Oregon, and Washington to reduce the burden of
4 administering and certifying the carbon intensity of
5 transportation fuels in the clean fuel program;
- 6 (11) Mechanisms that allow credits to be traded and to be
7 banked for future compliance periods; and
- 8 (12) Exemptions for diesel, gasoline, and alternative fuels
9 that are used in volumes below thresholds established
10 by the department of transportation.
- 11 (c) For the purposes of this section:
- 12 "Alternative fuel" means any fuel that is not gasoline or
13 diesel and is used for transportation purposes, including but
14 not limited to ethanol, biomass-based diesel, renewable diesel,
15 sustainable aviation fuel, electricity, biomethane, biogasoline,
16 renewable natural gas, fuels from carbon capture and
17 utilization, electrofuels, and hydrogen.
- 18 "Carbon intensity" means that quantity of lifecycle
19 greenhouse gas emissions per unit of fuel energy, expressed in
20 grams of carbon dioxide equivalent per megajoule.



1 "Clean fuel standard" means standards for the reduction of
2 greenhouse gas emissions, on average, per unit of fuel energy.

3 "Greenhouse gas" means carbon dioxide, methane, nitrous
4 oxide, hydrofluorocarbons, perfluorocarbons, sulfur
5 hexafluoride, and any other gas or gases designated by the
6 department of transportation or the Hawaii state energy office
7 by rule.

8 SECTION 3. This Act shall take effect on July 1, 2050.

9



S.B. NO. 1120 S.D. 1

Report Title:

DOT; Clean Fuel Standard; Greenhouse Gases; Alternative Fuels;
Rules

Description:

Requires the Department of Transportation to adopt rules governing a clean fuel standard for alternative fuels in the State. Effective 7/1/2050. (SD1)

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