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# A BILL FOR AN ACT

RELATING TO GREENHOUSE GAS EMISSIONS.

**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 lifecycle greenhouse gas emissions source  
3 and that tourism is the State's largest economic driver as well  
4 as transportation consumer. The legislature finds that better  
5 management of waste and resources is critical to environmental  
6 stewardship and a clean fuel standard is central to reducing the  
7 State's lifecycle greenhouse gas emissions while also protecting  
8 the State's economic competitiveness, public health, and the  
9 environment. The legislature also finds that without policy  
10 specific to the transportation sector, emissions reductions will  
11 not be achieved in a timeframe consistent with the State's  
12 goals. Therefore, a clean fuel standard that is technology-  
13 neutral and market-based is an effective policy for reducing  
14 emissions in the transportation sector while also achieving  
15 other co-benefits.

16           The legislature additionally finds that by creating a clean  
17 fuel standard that rewards environmental performance, the State



1 will incentivize the creation of jobs in various sectors,  
2 including construction, agriculture, waste management, landscape  
3 restoration, forestry, and transportation. A clean fuel  
4 standard can create new markets for what is usually considered  
5 waste, including but not limited to municipal solid waste;  
6 construction and demolition debris; used cooking oil from food  
7 processing; agricultural and forestry residuals; industrial  
8 emissions; invasive species biomass from landscape restoration  
9 projects; and renewable electricity. Furthermore, the demand  
10 created for alternative fuels and cleaner forms of mobility  
11 under a clean fuel standard will not only help reduce greenhouse  
12 gas emissions but may also have a co-benefit of reducing air  
13 pollution, improving the health of citizens of the State. To  
14 prompt the use of clean fuels and zero-emission vehicles, other  
15 states like California, Oregon, and Washington have successfully  
16 implemented programs that reduce the carbon intensity of their  
17 transportation fuels.

18       It is the intent of the legislature to support the  
19 deployment of clean transportation fuel technologies through a  
20 carefully designed program that reduces the carbon intensity of  
21 fuel used in the State in order to:



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

10 Therefore, the purpose of this Act is to require the Hawaii  
11 state energy office to adopt rules governing a clean fuel  
12 standard for alternative fuels in the State.

13 SECTION 2. (a) The Hawaii state energy office shall adopt  
14 rules pursuant to chapter 91, Hawaii Revised Statutes, governing  
15 a clean fuel standard for alternative fuels in the State. The  
16 rules shall include:

- 17 (1) A schedule to phase-in the implementation of the clean  
18 fuel standard for alternative fuels in a manner that  
19 reduces the average carbon intensity by at least ten  
20 per cent below 2019 levels by 2035 and at least fifty  
21 per cent below 2019 levels by 2045, including the



- 1 establishment of annual carbon intensity standards for  
2 alternative fuels;
- 3 (2) An implementation date for the clean fuel standard for  
4 alternative fuels on or before January 1, 2026;
- 5 (3) Standards for measuring lifecycle greenhouse gas  
6 emissions using Argonne National Lab's GREET model  
7 attributable to the production and use of diesel,  
8 gasoline, and other alternative fuels throughout their  
9 lifecycles, including feedstock production or  
10 extraction, fuel production and the transportation of  
11 raw materials and finished fuels;
- 12 (4) A mechanism by which diesel and gasoline that has a  
13 carbon intensity below the annual carbon intensity  
14 standard is used within the State to generate credits;
- 15 (5) A mechanism by which alternative fuel that has a  
16 carbon intensity below the annual carbon intensity  
17 standard is used within the State to generate credits;
- 18 (6) A mechanism to adjust the carbon intensity of  
19 alternative fuel when the alternative fuel is used in  
20 a powertrain that is not equal in efficiency to that  
21 of the reference fuel and drivetrain combination;



- 1           (7) A mechanism by which diesel or gasoline that has a
- 2                   carbon intensity above the annual carbon intensity
- 3                   standard would generate a deficit;
- 4           (8) A mechanism by which an alternative fuel that has a
- 5                   carbon intensity above the annual carbon intensity
- 6                   standard would generate a deficit;
- 7           (9) A mechanism that requires diesel, gasoline, or other
- 8                   alternative fuel that is exported from the State to
- 9                   retire any associated credit or debit;
- 10          (10) Exemptions for diesel, gasoline, or other fuels used
- 11                   by aircraft, railroad locomotives, military vehicles,
- 12                   and interstate waterborne vessels;
- 13          (11) Procedures for verifying the validity of credits and
- 14                   deficits generated under the clean fuel standard; and
- 15          (12) A schedule by which the Hawaii state energy office
- 16                   will review and update the lifecycle greenhouse gas
- 17                   modeling every three years based on a review of the
- 18                   best available scientific literature.
- 19          (b) The Hawaii state energy office may adopt rules that
- 20 include:



- 1 (1) A cost containment mechanism designed to allow for  
2 sufficient compliance flexibility and maximum  
3 greenhouse gas reductions;
- 4 (2) Mechanisms whereby an electric utility or an energy  
5 producer can generate credits for electricity for  
6 gaseous fuels used in transportation; provided that  
7 the Hawaii state energy office shall develop these  
8 mechanisms based on best practices in use in other  
9 states and in consultation with industry stakeholders;
- 10 (3) Mechanisms whereby exempt end-uses, such as aviation,  
11 marine, rail, and military, can opt in to the program  
12 to generate credits when using alternative fuel;
- 13 (4) Mechanisms whereby alternative fuel can opt in to the  
14 clean fuel program to generate credits when it  
15 displaces the combustion of gasoline or diesel in  
16 off-road, heating, cooling, and temporary power  
17 generation;
- 18 (5) A schedule to phase in the implementation of the  
19 standards for alternative fuels that have achieved a  
20 predominant market share and have an average carbon



- 1 intensity that exceeds the annual diesel or gasoline  
2 carbon intensity standard;
- 3 (6) A program to support the deployment of infrastructure  
4 for the distribution of electricity as a vehicle fuel  
5 based on a mechanism by which no more than per  
6 cent of the annual deficits can be allocated;
- 7 (7) A program to support the deployment of new  
8 technologies and infrastructure for the distribution  
9 or production of liquid or gaseous alternative fuels  
10 based on a mechanism by which no more than per  
11 cent of the annual deficits can be allocated;
- 12 (8) Any standards, specifications, testing requirements,  
13 and other measures as needed to ensure the quality of  
14 gasoline, diesel, and alternative fuels used in  
15 accordance with the clean fuel standard;
- 16 (9) Linking the clean fuel standard to similar policies in  
17 other jurisdictions, including but not limited to  
18 California, Washington, and Oregon;
- 19 (10) A method to utilize the carbon intensity pathways  
20 already approved in other states like California,  
21 Oregon, and Washington to reduce the burden of



1 administering and certifying the carbon intensity of  
2 transportation fuels in the clean fuel program;

3 (11) Mechanisms that allow credits to be traded and to be  
4 banked for future compliance periods; and

5 (12) Exemptions for diesel, gasoline, and alternative fuels  
6 that are used in volumes below thresholds established  
7 by the Hawaii state energy office.

8 (c) As used in this section:

9 "Alternative fuel" means any fuel that is not gasoline or  
10 diesel and is used for transportation purposes, including but  
11 not limited to ethanol, biomass-based diesel, renewable diesel,  
12 sustainable aviation fuel, electricity, biomethane, biogasoline,  
13 renewable natural gas, fuels from carbon capture and  
14 utilization, electrofuels, and hydrogen.

15 "Biogenic" means produced from any carbon or hydrogen  
16 absorbed by plants or trees from the atmosphere through  
17 photosynthesis within the past one hundred years.

18 "Carbon intensity" means the 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 Hawaii state energy office by rule.

7 SECTION 3. This Act shall take effect on July 1, 3000.



# H.B. NO. 2297 H.D. 1

**Report Title:**

Hawaii State Energy Office; Clean Fuel Standard; Greenhouse Gases; Alternative Fuels; Rules

**Description:**

Requires the Hawaii state energy office to adopt rules governing a clean fuel standard for alternative fuels in the State. Effective 7/1/3000. (HD1)

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2024-1460 HB2297 HD1 HMSO-1

