

Hawaii enacts clean fuel standard, targeting 50% cut in transport fuel carbon intensity by 2045

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Governor Josh Green has signed Senate Bill 2999 into law, establishing a market-based clean fuel programme intended to accelerate the use of lower-carbon fuels and reduce emissions from Hawaii's transport sector



Hawaii Governor Josh Green signed Senate Bill 2999, now Act 258, into law on July 14, 2026, creating a statewide Clean Fuel Standard aimed at reducing the carbon intensity of transportation fuels by at least 50 per cent below 2019 levels by 2045. The measure makes Hawaii the fifth US state to adopt a clean fuel standard, following California, Oregon, Washington and New Mexico.

The law directs the Hawaii Department of Transportation (HDOT) to establish a technology-neutral, performance-based programme that rewards lower-carbon fuels with credits and assigns deficits to fuels with higher carbon intensity. The framework is intended to encourage cleaner fuel production and use without mandating a single technology.

Under the legislation, HDOT must adopt rules by January 1, 2028. Implementation for diesel and gasoline is scheduled to begin on January 1, 2029. The programme must establish annual carbon-intensity standards and phase in reductions, beginning with a target of at least 10 per cent below 2019 levels by 2035 and rising to at least 50 per cent below the baseline by 2045.

The standard will assess lifecycle greenhouse gas emissions rather than only emissions produced when fuel is consumed. The calculation will cover emissions associated with feedstock production or extraction, fuel manufacturing and the transportation of raw materials and finished fuels. The legislation identifies carbon intensity as lifecycle greenhouse gas emissions per unit of fuel energy, expressed in grams of carbon dioxide equivalent per megajoule.

The programme is designed to create a credit market. Fuels with carbon intensity below the annual standard will be eligible to generate credits, while fuels that exceed the standard will generate deficits. The rules will also establish procedures for verifying credits and deficits, and may allow credits to be traded and banked for future compliance periods.

The law gives HDOT authority to develop additional mechanisms for electricity used in transportation. Electric utilities and energy producers could generate credits when electricity replaces gasoline or other fossil fuels in transport. The department may also provide options for exempt sectors—including aviation, marine, rail and military users—to participate voluntarily when they use alternative fuels.

Hawaii's legislation includes several exemptions. The rules must exclude fuels used by aircraft, railroad locomotives, military vehicles and interstate waterborne vessels from mandatory requirements. At the same time, the department may create voluntary participation mechanisms for some of these sectors.

The legislation comes as Hawaii seeks to address transportation, the state's largest source of lifecycle greenhouse gas emissions, while improving energy security and supporting locally produced renewable fuels. The state government says the clean fuel standard could create demand for fuels and materials derived from agricultural and forestry residues, municipal waste, used cooking oil, industrial emissions and invasive-species biomass.

The policy could therefore connect transportation decarbonisation with other sectors, including agriculture, waste management, forestry, energy and landscape restoration. By creating a market for materials that are often treated as waste, the programme could support new investment and employment opportunities while reducing dependence on imported fossil fuels.

“A resilient Hawaii is defined by sustainable systems,” Governor Green said when announcing the signing. “These investments reinforce a commitment to building co-beneficial models, allowing economic opportunities to give way to a cleaner, low-carbon future.”

The law also requires transparency during the programme's development. HDOT is expected to use a public rulemaking process involving stakeholder input, regular reporting and public engagement. The department will publish information through its Energy Security, Community & Culture Portal.

The rules will also use lifecycle emissions modelling based on the most recent version of the Argonne National Laboratory's GREET model. HDOT must review and update the modelling at least every three years, taking into account scientific research and developments in fuel technology.

Hawaii's approach follows clean fuel programmes already adopted in other states, but the final impact will depend on how the rules define eligible fuels, calculate emissions, control costs and manage credit prices. The legislation allows for a cost-containment mechanism to provide compliance flexibility while maintaining emissions-reduction goals.

The programme is expected to influence investment decisions across renewable fuels, electric mobility, bioenergy, waste-to-fuel systems and other clean transportation technologies. Its phased targets give producers, distributors and fuel users time to prepare for compliance, while creating a long-term policy signal for lower-carbon alternatives.

The immediate priority is rulemaking. HDOT must now translate the broad statutory targets into annual standards, reporting requirements, credit-generation protocols and compliance procedures. The resulting framework will determine how quickly Hawaii can move from legislative ambition to measurable reductions in transportation emissions.