HAWAII STATE ENERGY OFFICE
STATE OF HAWAII

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, March 12, 2024
9:00 AM
State Capitol, Conference Room 325 and Videoconference

Providing Comments on
SB 2768, SD1

RELATING TO GREENHOUSE GAS EMISSIONS.

Chair Lowen, Vice Chair Cochran, and members of the Committee, the Hawai'i State Energy Office (HSEO) provides **comments** on SB 2768 SD1, which requires HSEO to adopt rules governing a clean fuel standard for gasoline and diesel in the State.

HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy pursuant to HRS §196-71 and HRS §196-72. Our comments are also informed by analysis and findings associated with HSEO's Act 238 report, Pathways to Decarbonization,1 especially the discussion about implementing a Clean Fuel Standard based on lifecycle carbon intensity in Chapter 5 of the report. A relevant passage from the report, below, focuses on the importance of lifecycle emissions and managing carbon intensity over time:

> "Bioenergy, specifically biofuels, and alternative fuels will likely play a significant role in decarbonization.... With the selection of Stage 3 projects alone setting aside over 650 MW nameplate capacity by 2033 for bioenergy.[1] The electric sector is anticipated to require significant biofuel production and feedstock imports.

[1] Hawaiian Electric (2023) Renewable Project Status Board.

> However, as biofuels exhibit a diverse spectrum of lifecycle emissions, it becomes crucial to establish lifecycle carbon intensity standards which apply to all sectors. At a minimum, these standards should ensure that the carbon footprint throughout a biofuel's lifecycle remains consistently lower than that of fossil fuel. This approach ensures a stringent measure of environmental sustainability across various sectors. A clean fuel standard (CFS), or an adjustment to the RPS to account for the carbon emissions of biofuels [in the electric sector], would require fuel suppliers to gradually reduce the CI of the fuels sold and distributed within the state.
>
> Increasingly stringent CI reduction requirements can serve to decrease the CI of alternative fuels and help ensure that the state prioritizes low carbon fuel imports as they become commercially available." [2]

Accordingly, a CFS bill should support a lifecycle CI that is high enough to reflect fuels that are currently available while still being lower than the fossil fuel alternatives, low enough to reduce carbon emissions and have the flexibility to have the CI threshold decrease over time to encourage technological improvements and the adoption of cleaner fuels over time.

HSEO supports and welcomes the intent of this bill which encourages measures to help attain Hawai‘i’s decarbonization goals by providing market mechanisms to lower the carbon intensity of alternative fuels used in the state. However, HSEO recommends a modified approach to ensure the standard can be used to achieve the intent of the bill to widely support the deployment of clean transportation fuel technologies through a methodical reduction of the carbon intensity of fuels used in the state over time.

Specifically, HSEO has the following comments and concerns on the proposed measure in its current form. Suggested Ramseyer edits are provided with rationale:

Scope of the Clean Fuel Standard

SB 2768, SD1, covers a narrower scope of transportation fuels than that of other Clean Fuels Standards (“CFS”) and Low-Carbon Fuel Standards (“LCFS”) implemented in other states. with lower lifecycle carbon intensity, the scope of fuels covered under SB2768 SD1 definitions may be too narrow to promote significant levels of decarbonization. Given the core purpose of a CFS is to promote better management of waste and resources, while incentivizing the use of fuels

[2] Hawai‘i State Energy Office (2023). Hawai‘i Pathways to Decarbonization Report to the 2024 Hawai‘i State Legislature. Act 238 (SLH 2022). Pages 226-229.

SB 2768, SD1, proposes to enforce a CFS on diesel, gasoline, and alternative fuels. However, other state fuel standards, such as those in Washington State and Oregon have CFS that apply to gasoline, gasoline substitutes, diesel, and diesel substitutes. California's LCFS applies more broadly to (1) California reformulated gasoline; (2) California diesel fuel; (3) fossil compressed natural gas or fossil liquefied natural gas; (4) biogas CNG or biogas LNG; (5) electricity; (6) compressed or liquefied hydrogen; (7) a fuel blend containing hydrogen; (8) a fuel blend containing greater than 10 percent ethanol by volume; (9) a fuel blend containing biomass-based diesel; (10) denatured fuel ethanol; (11) neat biomass-based diesel; and (12) any other liquid or non-liquid fuel.[3] The EPA's Renewable Fuels Standard ("RFS") Program[4] also covers a broader range of renewable fuels.[5] Hawaii's own alternate fuel standard goal, as codified in Hawai‘i Revised Statutes section 196-42, uses the federal definition of "alternate fuels,"[6] which also provides a broader definition of alternative fuels than that defined under SB2768.

HSEO advises that any effective fuel standard would have a broadened scope of the CFS to include electricity and a broader range of alternative fuels. HSEO suggests the definition of covered fuels is consistent with EPA's Renewable Fuel Standard and 10 C.F.R. § 490.2.

Page 9, Lines 7-10

"Alternative fuel" means ~~fuel that is used in transportation and derived from municipal solid waste, agriculture or forestry practices, construction waste, animal or food waste, or other biogenic biomass sources.~~ methanol, denatured ethanol, and other alcohols; mixtures containing 85 percent or more by volume of methanol, denatured

[3] ORS Chapter 468A, § 266.
[4] *Approved Pathways for Renewable Fuel*, EPA, https://www.epa.gov/renewable-fuel-standard-program/approved-pathways-renewable-fuel.
[5] 10 C.F.R. § 490.2.
[6] "Alternative Fuel" means "methanol, denatured ethanol, and other alcohols; mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels; natural gas, including liquid fuels domestically produced from natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; fuels (other than alcohol) derived from biological materials (including neat biodiesel); three P-series fuels (specifically known as Pure Regular, Pure Premium and Pure Cold Weather) as described by United States Patent number 5,697,987, dated December 16, 1997, and containing at least 60 percent non-petroleum energy content derived from methyl-tetrahydrofuran, which must be manufactured solely from biological materials, and ethanol, which must be manufactured solely from biological materials; and electricity (including electricity from solar energy)." 10 C.F.R. § 490.2.

ethanol, and other alcohols with gasoline or other fuels; natural gas, including liquid fuels domestically produced from natural gas; liquefied petroleum gas; hydrogen; fuels (other than alcohol) derived from biological materials (including neat biodiesel); three P-series fuels (specifically known as Pure Regular, Pure Premium and Pure Cold Weather) as described by United States Patent number 5,697,987, dated December 16, 1997, and containing at least 60 percent non-petroleum energy content derived from methyl-tetrahydrofuran, which must be manufactured solely from biological materials, and ethanol, which must be manufactured solely from biological materials; and electricity (including electricity from solar or other renewable energy)”

HSEO also offers language for carbon intensity thresholds, which HSEO can further refine in rulemaking. HSEO recommends extending the implementation date by at least 1 year, as this is a highly technical subject matter and would require substantial resources to develop a comprehensive CFS program.

Page 3, Lines 14-20; page 4, Lines 1-2.

(a) The Hawaii state energy office shall adopt rules pursuant to chapter 91, Hawaii Revised Statutes, governing a clean fuel standard for diesel, ~~and~~ gasoline, and alternative fuels in the **State**. The rules shall include:

1) A schedule to phase-in the implementation of the clean fuel standard for diesel, gasoline, and alternative fuels in a manner that reduces the average carbon intensity of fuels by at least 15 per cent below 2019 levels by the year 2035, and at least 50% below 2019 levels by the year 2045 including the establishment of annual carbon intensity standards for diesel, gasoline, and alternative fuels;
2) An implementation date for the clean fuel standard for diesel, ~~and~~ gasoline, and alternative fuels on or before January 1, ~~2025~~ 2026;

Standards for Measuring Net Greenhouse Gas Emissions

Section 2 (a) (3) requires the State Energy Office to adopt rules, which shall include (3) “Standards for measuring net greenhouse gas emissions using Argonne National Lab's GREET model attributable to the production and use of diesel, gasoline,

and other alternative fuels throughout their lifecycles, including feedstock production or extraction, fuel production, transportation of raw materials and finished fuels, and greenhouse gas sequestrations;”.

HSEO notes that while the Argonne National Laboratory’s GREET is an ideal model for determining lifecycle carbon emissions, adjustments to the model would be needed, particularly to capture upstream emissions from in-state biofuels and feedstock, as the default feedstock carbon intensity calculator (FD-CIC) does not have Hawai'i-specific land characteristics built-in, these characteristics must be input by the user and can be both subjective and skewed by the user. California adopted its lifecycle models and documentation to overcome this challenge and ensure appropriate system boundaries were applied to the applicant's analysis.[7] Hawai‘i would likely need to do the same, additional resources would be needed to assist in the development of a HI-GREET Model.

Consistent with EPA guidance, HSEO also recommends removing language around “net” emissions, instead the focus should be on total lifecycle emissions. Sequestration activities not associated with the production of the feedstock should not be included in the lifecycle analysis; the assessment of fuel production should not include activities unrelated to the fuel lifecycle.[8]

Page 4, Lines 5-11

3) Standards for measuring ~~net~~ lifecycle greenhouse gas emissions, including biogenic emissions, using ~~Argonne National Lab's GREET~~ an appropriate and opensource GHG model attributable to the production and use of diesel, gasoline, and other alternative fuels throughout their lifecycles, including feedstock production or extraction, fuel production, and the transportation of raw materials and finished fuels~~, and greenhouse gas sequestrations;~~

[7] California Air Resources Board (2023). LCFS Life Cycle Analysis Models and Documentation https://ww2.arb.ca.gov/resources/documents/lcfs-life-cycle-analysis-models-and-documentation
[8] EPA RPS standard practice https://www.epa.gov/renewable-fuel-standard-program/lifecycle-analysis-greenhousegas-emissions-under-renewable-fuel

Allowing for Flexibility in Rulemaking

HSEO recommends certain line items (items 9-12) in Section 2 (a) be moved to Section 2 (b), to allow for more flexibility in rulemaking, particularly as it relates to exemptions which may not be appropriate.

Page 5, Lines 7-19

9) Mechanisms that allow credits to be traded and to be banked for future compliance periods;
10) A mechanism that requires diesel, gasoline, or other alternative fuel that is exported from the State to retire any associated credit or debit;
11) Exemptions for diesel, gasoline, and alternative fuel that are used in volumes below thresholds established by the Hawaii state energy office;
12) Exemptions for diesel, gasoline, or other fuels used by aircraft, railroad locomotives, military vehicles, and interstate waterborne vessels;

Revising Definitions, Section 2 (c)

HSEO recommends biogenic be redefined to accurately reflect the definition more broadly used by the EPA.

Page 8, Lines 11-13

"Biogenic Emissions" means emissions related to the natural carbon cycle, as well as those resulting from the combustion, harvest, digestion, fermentation, decomposition, or processing of biologically based materials produced within the past one hundred years, not inclusive of fossil emissions. ~~from any carbon or hydrogen absorbed by plants or trees from the atmosphere through photosynthesis within the past one hundred years.~~

HSEO recommends the definition be broadened as megajoules may not be the most appropriate unit of measurement. HSEO appreciates the flexibility in rulemaking.

Page 8, Lines 14-16

"Carbon intensity" means the quantity of lifecycle greenhouse gas emissions per unit of fuel energy, expressed in ~~grams~~ mass of carbon dioxide equivalent per ~~megajoule.~~ unit of energy produced.

Additional Considerations

Clean Air Act Compliance, Federal Preemption, and State Implementation Plans

Under Section 110 of the CAA, states must adopt State Implementation Plans (SIPs) and submit them to the EPA to ensure that they are adequate to meet the statutory requirements of the Clean Air Act. SIPs provide a plan for implementation, maintenance, and enforcement of the National Ambient Air Quality Standards ("NAAQS") in each state.[9]

Title II of the CAA generally preempts states from adopting their own emission standards for new motor vehicles or engines. CAA Section 209(b) provides an exception to federal preemption of state vehicle emission standards:

> The [EPA] Administrator shall, after notice and opportunity for public hearing, waive application of this section [the preemption of State emission standards] to any State which has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines before March 30, 1966, if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.

Only California can qualify for such a preemption waiver because it is the only state that adopted motor vehicle emission standards "prior to March 30, 1966." However, Section 177 of the CAA allows other states to adopt California's stricter motor vehicle emission standards in lieu of federal requirements, but only for non-attainment areas (i.e., areas where pollution levels have not met the NAQQS). Hawai‘i consistently receives "attainment" status from the EPA, therefore under Section 177 of the CAA, it is ineligible to adopt California's stricter vehicle emissions standards.11 This may be an insurmountable hurdle in Hawai'i pursuing vehicle emissions standards. However, the State of Hawai‘i could make a request to EPA to gauge the remote possibility of preparing a SIP for fuel standards that is not currently required by law, but would be advantageous to Hawai‘i air quality and health such that the EPA Administrator makes a finding that such a SIP and potential emissions standard would be necessary to help the state achieve a NAAQS standard.12 Thus, insofar that Hawai‘i's CFS is for motor

[9] *Basic Information About Air Quality SIPs*, EPA, https://www.epa.gov/air-quality-implementation-plans/basic-information-about-air-quality-sips.

vehicle emission control, Hawai‘i will likely have to modify its SIP for EPA approval in a totally novel manner relative to other states. The State Department of Health, Clean Air Branch would be the coordinating agency for making the request to EPA and ultimately modifying Hawai‘i’s SIP based on EPA‘s guidance.

HSEO recommends this step be incorporated into the SB2768 SD1 and be done prior to finalizing rules.

Importance of Complementary Policy

While a CFS with a temporally decreasing carbon intensity target is likely needed to meet Hawai‘i’s emissions target (HRS §225P-5), the state should implement complementary policies that promote alternative fuel production, otherwise, alternative fuel supply may become an issue.

Act 122, Session Laws of Hawai‘i 2019 required HSEO to examine the implementation of a carbon pricing policy for Hawai‘i. The analysis noted Hawai‘i’s relatively small market size and limited number of market participants limit the effectiveness of instituting a cap-and-trade policy. One way to bridge the limitation of market size may be for Hawai’i to join existing cap-and-trade policies that exist in other jurisdictions. States like Washington and California have discovered that a combination of LCFS and cap-and-trade help drive long-term investments in renewables and advanced fuels without which meaningful air quality improvements can be achieved in communities that are disproportionately impacted by carbon emissions.

However, for California, researchers have found that the cap-and-trade currently is not stringent enough to drive substantial emission reductions because over time many covered entities and outside investors have banked unused allowances.[10] A carbon tax program could serve a similar purpose if fuels not meeting the CFS are subject to an aggressive surcharge. Further research is needed to determine the appropriate complementary carbon pricing regime.

[10] California’s Cap-and-Trade Program: Frequently Asked Questions. (2023, October 24). Legislative Analyst’s Office. https://lao.ca.gov/Publications/Report/4811#:~:text=However%2C%20cap%2Dand%2Dtrade,significant%20number%20of%20unused%20allowances.

HSEO thanks the Committee for hearing this bill and respectfully requests your consideration of the recommended modified approach and changes.

Thank you for the opportunity to testify.

Josh Green
GOVERNOR OF HAWAII

STATE OF HAWAI'I
HAWAI'I CLIMATE CHANGE MITIGATION & ADAPTATION COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
Leah Laramee
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission

Before the House Committee on
ENERGY & ENVIRONMENTAL PROTECTION

Tuesday March 12, 2024
9:00 AM
State Capitol, Via Videoconference, Conference Room 325

In support of
SENATE BILL 2768 SD1
RELATING TO GREENHOUSE GAS EMISSIONS

Senate Bill 2768 SD1 requires the Hawai'i state energy office to adopt rules governing a clean fuel standard for gasoline and diesel in the State. **The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this measure.**

The Commission is a multi-jurisdictional effort between 20 different State and county departments, and Legislative committees. The Commission believes that it is imperative to adopt clean fuel standards if we are to reach our mandated 2045 carbon emission goals. The transportation sector is the largest source of climate pollution in the state. Timely adoption of fuel standards is essential to protect our communities and advance emissions reduction targets.

Complementary policies are needed to support zero emission vehicle (ZEV) deployment on our roadways. This includes offering State-level incentives that can be combined with federal tax credits for the purchase and installation of electric vehicle (EV) chargers; leveraging investments through the National Electric Vehicle Infrastructure program to expand public charging availability; working with utilities to expand investments in ZEV infrastructure and otherwise prepare for vehicle electrification; and establishing EV-ready requirements to ensure new housing and parking facilities will accommodate EV charging infrastructure.

Clean fuel standards reduce harmful emissions of nitrogen oxides and fine particulates, improving public health for residents in the state and advancing environmental justice by reducing disproportionate exposure to vehicle pollution in frontline communities.

Mahalo for the opportunity to testify in support of this measure.

House Committee on Energy & Environmental Protection
Representative Nicole E. Lowen, Chair
Representative Elle Cochran, Vice Chair

March 12, 2024
9:00 a.m.
Conference Room 325

Thank you for the opportunity to submit testimony in strong support of SB 2768_SD1. My name is Cristina Cornejo and I am the Public Affairs Manager for Neste, the world's leading producer of sustainable aviation fuel and renewable diesel.

A Clean Fuel Standard (CFS) for Hawaii is an essential policy that will enable the state to meet its decarbonization goals, while reducing air and water pollution from the use of fossil fuels in our transportation system.

SB 2768_SD1 creates the framework for the creation of a clean fuel credit market. Similar CFS programs have been implemented in California, Oregon, Washington, and Canada and most recently New Mexico enacted a CFS in March 2024. In addition, there are currently more than 10 additional states considering CFS policies, due to their effectiveness.

SB 2768_SD1 is NOT a mandate, nor is it a tax credit, but rather it is an incentive program designed to promote the decarbonization of all transportation fuels. CFS policies drive the adoption of lower-carbon transportation technologies resulting in advanced competition and a diversity of fuel options for consumers. As an example, consumers in CA have gone from 2 fuel types (gasoline and diesel) to more than 7 fuel types (gasoline, diesel, renewable diesel, electric, ethanol, biodiesel, hydrogen, and renewable compressed natural gas). This policy also drives substantial new investments in electric vehicle charging and hydrogen infrastructure at no cost to taxpayers.

One crucial element of a CFS is that it is a technology neutral policy that allows consumers to decide what fuels work best for them and their businesses. All transportation fuels can partake in a clean fuels market and the policy is flexible enough to allow for new technologies that will come online in the future.

Another key component of SB 2768_SD1 is that it utilizes an independent third-party, science-based evaluation for all transportation fuels. The policy uses the GREET model, which was created by Argonne National Laboratory and is the worldwide standard methodology to calculate the carbon intensity of a given fuel. This model assesses fuel on a well to wheels basis and considers the full life cycle assessment of a fuel to determine its carbon intensity score. This ensures all fuels are scored on an equal playing field and the winners are those fuels with the lowest possible carbon intensity score.

In conclusion, a clean fuel standard is the most effective policy in reducing carbon emissions from the transportation sector by incentivizing the production and availability of lower carbon fuels. The State of Hawaii deserves access to cleaner fuels and protection of its treasured natural resources. SB 2768_SD1 is a significant piece of the decarbonization puzzle and we at Neste are proud to support this pivotal policy.

Cristina Cornejo, Public Affairs Manager, Neste

Phone: (361) 701-9922

Email: cristina.cornejo@neste.com

Neste Background

Neste creates solutions for combating climate change and accelerating a shift to a circular economy. The company refines waste, residues and innovative raw materials into renewable fuels and sustainable feedstock for plastics and other materials.

As the world's leading producer of sustainable aviation fuel and renewable diesel and a forerunner in developing renewable and circular feedstock solutions for polymers and chemicals, Neste helps its customers to reduce their greenhouse gas emissions by at least 20 million tons annually by 2030.

Neste is committed to reaching carbon-neutral production by 2035 and will reduce the carbon emission intensity of sold products by 50% by 2040. Neste has also set high standards for biodiversity, human rights and the supply chain. The company has consistently been included in the Dow Jones Sustainability Indices and the Global 100 list of the world's most sustainable companies.

Par Hawaii

March 12, 2024

TESTIMONY PROVIDING COMMENTS TO SENATE BILL SB 2768 SD2
RELATING TO GREENHOUSE GAS EMISSIONS

House Committee on Energy & Environmental Protection
The Honorable Nicole E. Lowen, Chair
The Honorable Elle Cochran, Vice Chair

Tuesday, March 12, 2024, 9:00 AM
Conference Room 325 & Videoconference

Chair Lowen, Vice Chair Cochran and members of the Committees,

Thank you for this opportunity to submit written testimony offering comments on SB 2768 SD2, Relating to Greenhouse Gas Emissions. My name is Eric Wright and I serve as President of Par Hawaii. Par Hawaii is the state's only local producer of petroleum products, including transportation fuels.

SB 2768 SD2 would require the Hawaii State Energy Office (HSEO) to adopt rules governing a clean fuel standard for gasoline and diesel in the State. The bill would be similar to policies in West Coast jurisdictions, including California, Washington, and Oregon.

We recognize the importance of charting a clean energy future for Hawaii. As the local producer of fuels for Hawaii's consumers, we are committed to a part of this future by investing $90 million to develop Hawaii's largest liquid renewable fuels manufacturing facility at its Kapolei refinery. The project — to be commissioned in 2025 — is expected to produce approximately 61 million gallons each year of renewable diesel, sustainable aviation fuel, renewable naphtha and liquified petroleum gases using renewable feedstock.

We have three principal comments on SB 2768 SD2:

- Implementing and administering a clean fuel standard (CFS) is a significant undertaking. It is important that a broad range of stakeholders are heard from and consulted to avoid unintended consequences of this legislation.

- Hawaii's energy landscape is significantly different than that of mainland states. We have much higher demands for aviation fuel and liquid fuels for power generation. It is important that a Hawaii CFS take into account the unique needs of our state.
- The cost to produce renewable fuels for transportation is well above that of fossil fuels. While there are Federal programs in place to partially bridge the gap, state level incentives are also required to make renewable fuels competitive with fossil fuels. We believe that a clean fuel standard should be paired with an expansion of the Hawaii renewable fuels production tax credit (HRS 235-110.32). This is particularly important because it can take years for the CFS credit market to develop to the point where it is serves as an effective long-term incentive for renewable fuels.

We believe it is possible to produce significant amounts of renewable fuel here in Hawaii, and in a way that supports the local agriculture sector. Par Hawaii has partnered with Pono Pacific, a land management and conservation company, to develop locally grown, oil-yielding crops that will contribute to Hawaii's clean energy future.

In summary, we believe it is important to proceed cautiously and thoughtfully on a Hawaii CFS. We look forward to participating in this dialogue.

Thank you for allowing Par Hawaii the opportunity to present these comments for the Committee's consideration.

To: The House Committee on Energy and Environmental Protection
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, March 12, 2024, 9am

Comments for SB2768 SD1

Aloha Chair Lowen, Vice Chair Cochran, and Energy and Environmental Protection Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org offers **comments on SB2768 SD1**.

In this measure it specifies that the Hawaii state energy office shall adopt rules that include mechanisms that allow credits to be traded and to be banked for future compliance periods. These type of emissions trading schemes are a serious concern. Businesses have been found to use these schemes for corporate greenwashing.

Furthermore, the definition for "alternative fuel" is problematic. In this measure, *"Alternative fuel" means any fuel that is used in transportation and derived from municipal solid waste, agriculture or forestry practices, construction waste, animal or food waste, or other biogenic biomass sources.* It is important to remember that burning biomass and trash incineration have a significant impact on air quality, human health, and climate change.

We cannot afford missteps or distractions from our efforts to decarbonize. As such, we urge the committee to amend this measure to address these serious concerns.

Mahalo for the opportunity to testify.

Sherry Pollack
Co-Founder, 350Hawaii.org

twelve

Legislative Testimony of S. Derek Phelps
House Committee on Energy & Environmental Protection
March 12, 2024
Senate Bill No. 2768 SD1
(Introduced by Senators Wakai, Kanuhana, Kidani, Lee, and Shimabukuro)

A BILL FOR AN ACT Relating to Greenhouse Gas Emissions.

Good morning Chair Lowen, Vice Chair Cochran, and distinguished members of the Committee. My name is Derek Phelps. I am Head of Policy & Governmental Affairs for Twelve Benefit Corporation (Twelve). It is my pleasure to appear before this Committee to testify in support of Senate Bill No. 2768 SD1, sponsored by Senators Wakai, Kanuhana, Kidani, Lee, and Shimabukuro, which would establish a Clean Fuel Standard (CFS) that would decarbonize Hawaii's transportation fuels and align with the State's ambitious goal of achieving 100% clean energy by 2045.

Founded in 2015 as a high-tech start-up, Twelve has developed a breakthrough technology that transforms CO2 into useful hydrocarbon products such as polymers, ethylene, and fuels, alleviating the need to extract additional fossil fuels from the ground.

We are currently focused on the production of sustainable aviation fuel (SAF), which we refer to as E-Jet®. That is because the domestic airline industry and the Federal government are striving for 3 billion gallons of SAF per year by 2030.

Twelve has partnerships for the sale of its SAF with commercial air carriers

such as Alaska Airlines, which is poised to merge with Hawaiian Airlines, and we have completed demonstration projects with the Department of Defense and the National Aeronautics and Space Administration. I am also pleased to report that we recently announced an offtake agreement with the International Airlines Group (IAG). Under the terms of the 14-year contract, Twelve will supply IAG with 260 million gallons of E-Jet to support its five European airlines (British Airways, Iberia, Aer Lingus, Vueling, and LEVEL).

As indicated above, Twelve strongly endorses SB 2768 SD1. If enacted, Hawaii's CFS, once adopted by the Hawaii State Energy Office, would be akin to, and would serve to complement, similar policies in West Coast mainland jurisdictions such as California, Oregon, and Washington, where we are currently building a demonstration plant.

To be clear, Twelve's E-Jet is a Power-to-Liquids (PtL) fuel. While technological approaches to the production of PtL fuels can vary, the common thread among all such fuels is the utilization of the same feedstocks: CO2 that is either captured from an industrial source (e.g., an ethanol facility) or obtained from direct air capture; and a renewable source of electricity (e.g., solar, wind, hydropower) that is used to create clean hydrogen through the electrolysis of water (or perhaps through some other clean hydrogen production pathway). With this in mind, it is not clear to us that our E-Jet fuel would be considered an "alternative fuel" as that term is defined in section 2(c) of SB 2768 SD1. Consequently, it is also not clear whether our E-Jet, which reduces greenhouse gas emissions by up to 90 percent in comparison to conventional, petroleum-based jet fuel, would be able to generate credits as contemplated under sections 2(a)(5) and 2(b)(3) of the measure.

Therefore, we respectfully suggest that for the CFS to achieve Hawaii's decarbonization goals, the definition of "alternative fuel" should be broadened to include PtL fuels like Twelve's E-Jet. To that end, we urge that the definition in section 2(c) of SB2768 SD1 be amended to align with the definition of "alternative fuel" that appears in the latest version of the House companion bill, HB2297 SD1, which definition is as follows:

> "Alternative Fuel" means any fuel that is not gasoline or diesel and is used for transportation purposes, including but not limited to ethanol, biomass-based diesel, renewable diesel, sustainable aviation fuel, electricity, methane, biogasoline, renewable natural gas, fuels from carbon capture and utilization, electrofuels, and hydrogen.[1]

Under this definition, our E-Jet would undeniably constitute an "alternative fuel," as it is both a fuel from carbon capture and utilization and an electrofuel.

In conclusion, Twelve enthusiastically supports SB2768 SD1 and urges its passage with the one modification described above. We thank you for your attention to this matter.

[1] *See* section 2(c) on page 8, lines 9-14 of https://www.capitol.hawaii.gov/sessions/session2024/bills/HB2297_HD1_.PDF.

Clean Energy
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www.cleanenergyfuels.com

Ryan Kenny
Policy Director – Western U.S.

Committee on Energy & Environmental Protection
Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair

March 12, 2024
9:00 a.m.
Conference Room 325

Aloha Chair Lowen and Vice Chair Cochran:

On behalf of Clean Energy, I would like to express **strong support for SB 2768_SD 1** which would adopt a Clean Fuel Standard (CFS), a program that would decarbonize Hawaii's transportation fuels and aligns with the state's ambitious goal of achieving 100% clean energy by 2045.

Our company was a foundation stakeholder since a CFS was conceived in the respective California, Oregon and Washington processes. Each of these states has been a success and we believe it will be a success in Hawaii as well. As North America's largest provider of renewable natural gas (RNG) transportation fuel with over twenty-seven years of leading industry experience, Clean Energy provides construction, operation and maintenance services for refueling stations nationwide. We have a deep understanding of the growing marketplace, as our portfolio includes over 600 stations in 43 states and we deliver liquified natural gas to Hawaii's utility and built a fuel station in Honolulu.

Already used as a clean, low carbon source of energy around the world, RNG is proven to be a cost-saving alternative fuel to diesel and gasoline. RNG for transportation fuel strengthens our economy with lower fuel costs, increases our energy security, and significantly benefits our environment by reducing carbon emissions and smog-forming NOx emissions by up to 300% and 99%, respectively, relative to diesel fuel.

The CFS is a critical tool not only to effectively meet carbon emission reduction targets, but also as a mechanism that fosters technological innovation, supports a robust market for alternative fuels, provides long-term investment certainty and stimulates job creation and investment.

In addition, the CFS could provide compliance flexibility to producers of high carbon intensity transportation fuels to either invest in low carbon alternative fuels or to purchase credits from low carbon fuel producers. This market-based program enables regulated parties to make their own choice as to whether to invest in low carbon fuels directly or to continue to sell purely high carbon emitting fuels.

For example, California's LCFS is working: it's helping deliver clean air, good jobs and clean energy choices to all Californians and has strengthened the demand for low carbon fuels. California is the fifth-largest economy in the world: we can have clean fuels and grow our economy. The CFS is a powerful tool for supporting the commercialization of the fastest broad-market transitions to clean and low-carbon technologies.

Our company is a prime example of success from clean fuel standards and we look forward to continuing this success in Hawaii. **Please support SB 2768_SD 1.**

Sincerely,

Ryan Kenny
Policy Director – Western U.S.
Clean Energy

EST. LIFE OF THE LAND 1970

P.O. Box 37158, Honolulu, Hawai`i 96837-0158
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COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Rep. Nicole E. Lowen, Chair
Rep. Elle Cochran, Vice Chair

DATE: Tuesday, March 12, 2024
TIME: 9:00am
PLACE: Conference Room 325

Re: SB 2768, SD1 RELATING TO GREENHOUSE GAS EMISSIONS. **PLEASE HOLD**

Aloha Chair Lowen, Vice Chair Cochran, and Members of the Committee

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 53 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

The Problem

The threat from climate change must be dealt with aggressively. Human health and ecosystems require an immediate sharp reduction in greenhouse gas emissions.

Climate change impacts will continue to rise until we go carbon negative.

Climate change impacts can be seen in many areas from human health to changes in the global ocean conveyor belt and the polar jet stream, melting glaciers**, increasing** storm intensity, sea level rise, adverse changes in pollen (increased length, intensity, and geographic location), and the spread of invasive species.

"Global wildfires generated approximately 2 billion tonnes of carbon emissions in 2023."[1]

More than two billion trees were burned in global wildfires last year.

“Globally we deforest around ten million hectares of forest every year.”[2] “Using data from a recent study by researchers at the University of Maryland, we calculated that forest fires... accounted for more than one-quarter of all tree cover loss over the past 20 years.”[3] “Generally the number of trees planted per hectare will vary from 1,000 to 2,500 trees, but the number will vary hugely, depending on the species and the type of planting.”[4]

The Proposed Legislation

We all recognize that "clean coal" is an oxymoron, but here we are proposing to define some fossil fuel as "Clean Fuel" as opposed to "Less Dirty Fuel."

The purpose of this Act is to require the Hawaii state energy office to adopt rules governing a clean fuel standard for diesel and gasoline in the State. The bill exempts fuel

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[1] Copernicus Atmosphere Monitoring Service, https://atmosphere.copernicus.eu/2023-year-intense-global-wildfire-activity

[2] https://ourworldindata.org/deforestation#:~:text=Globally%20we%20deforest%20around%20ten%20million%20hectares%20of%20forest%20every%20year.&text=That's%20an%20area%20the%20size,five%20million%20hectares%20each%20year.

[3] World Resources Institute, https://www.wri.org/insights/global-trends-forest-fires#:~:text=Using%20data%20from%20a%20recent,over%20the%20past%2020%20years. citing Global Trends of Forest Loss Due to Fire From 2001 to 2019 (2022), University of Maryland Study, Frontiers in Remote Sensing, Volume 3 - 2022, https://doi.org/10.3389/frsen.2022.825190; https://www.frontiersin.org/articles/10.3389/frsen.2022.825190/full

[4] https://nhsforest.org/how-many-trees-can-be-planted-hectare/#:~:text=Home%20How%20many%20trees%20per,and%20the%20type%20of%20planting.

used by airplanes, marine, and military. State law is probably preempted by federal law and international agreements for these uses.

The bill requires that the average carbon intensity of diesel and gasoline must be reduced by X% in Year Y.

This is hardly a reassuring requirement. Rather than putting an end to climate inducing vehicles, we are putting lipstick on a pig.

Desired Alternative

We should first firmly establish an aggressive escalating timeline for phasing out fossil fuel powered vehicles akin to the Renewable Portfolio Standard. Then, and only then, should we establish standards that reduce fossil fuel emissions.

All 27 European Union (EU) countries have banned the sale of gas-powered cars after 2035, in 11 years. In the US, California, Vermont, New York, Washington, Oregon, Massachusetts, Virginia, Rhode Island, and Maryland have done the same. Ethiopia banned the import of any gas-powered cars, starting this year.

Azerbaijan, Canada, Cape Verde, Chile, El Salvador, Iceland, Israel, Liechtenstein, New Zealand, Norway, the United Kingdom, and Uruguay have signed onto A.2 of the COP26 declaration committing to all new cars being zero emissions by 2040. Japan, Singapore, Sri Lanka, Taiwan, and Thailand have similar plans to phase out fossil-fuel powered cars.

Combustion Fuel Impacts

Combustion fuel impacts include the release of greenhouse gases, toxics, and particulates, and water, among other things. Combustion emissions affect people, flora, and fauna, causing unacceptable impacts to health, air quality, and climate change.

We need to end combustion of fuels that minimize upstream and operational toxic emissions. This can be accomplished by electrification of transportation combined with replacing combustion generators with renewable energy systems that have low lifecycle greenhouse gas emissions. Increasing public transit options also helps.

Carbon Trading

The bill would allow for carbon trading at a time when the international carbon trading is facing numerous scandals amidst documented greenwashing. The bill proposes that various mechanisms be established to certify green credits but has no mention on how members of the public could safeguard these mechanisms from abuse.

Mahalo,
Henry Curtis
Executive Director

SanHi
GOVERNMENT STRATEGIES
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: March 12, 2024

TO: Representative Nicole E. Lowen
Chair, Committee on Energy & Environmental Protection

FROM: Tiffany Yajima

RE: **S.B. 2768, S.D.1 – Relating to Greenhouse Gas Emissions**
Hearing Date: Tuesday, March 12, 2024 at 9:00 a.m.
Conference Room: 325

Dear Chair Lowen, Vice Chair Cochran, and Members of the Committee on Energy & Environmental Protection:

The Alliance for Automotive Innovation ("Auto Innovators") submits this testimony providing **comments** in support of S.B. 2768, SD1, which requires the state energy office to adopt rules governing a clean fuel standard for gasoline and diesel in the state.

The Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the economy. From the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers – the association is committed to a cleaner, safer and smarter personal transportation future.

Auto Innovators support the intent of this measure and request a clarifying amendment on page 8 at line 7 to include "electricity" in the definition of "alternative fuel" as follows:

> "Alternative fuel" means any fuel that is used in transportation ~~and~~ including electricity, hydrogen, and fuels derived from municipal solid waste, agriculture or forestry practices, construction waste, animal or food waste, or other biogenic biomass sources.

Electric vehicles, which includes battery electric, plug-in hybrid electric, and fuel cell electric vehicles, use alternative fuels like electricity and hydrogen for power. This amendment would make clear that electricity and hydrogen derived from MSW, agriculture or forestry practices, and construction, animal or food waste are alternative fuels that qualify for this clean energy program.

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We also note that a companion measure, H.B. 2297, was heard and passed out of this committee. Auto Innovators appreciate the amendments made by this committee and would support the definition of “alternative fuel” that is reflected in the H.D.1.

As Hawaii moves forward on efforts to establish clean fuel standards for diesel and gasoline in the state, Auto Innovators are ready and willing to serve as a resource on carbon reductions and baseline measurements for alternative fuels used in the transportation sector. Auto Innovators support efforts to reduce vehicle greenhouse gas (“GHG”) emissions, conserve energy, and transition vehicles to electric vehicles, and has worked with the federal government and state governments to establish fuel intensity standards in states including California, Oregon and Washington. This partnership has helped states to reduce the carbon intensity of transportation fuels while also encouraging the use of clean fuels and zero-emission vehicles.

Thank you for the opportunity to submit this testimony.

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Kahului, Hawaii 96733
Phone (808) 877-3144
Fax (808) 877-5030
www.biodiesel.com

March 11, 2024

TESTIMONY ON SB 2768 SD1, RELATING TO GREENHOUSE GAS EMISSIONS

SUPPORT

Representative Nicole E. Lowen, Chair
Representative Elle Cochran, Vice Chair
Committee on Energy & Environmental Protection
Hearing: March 12, 2024, at 9:00AM, Conf Room 325

Aloha Chair Lowen, Vice Chair Cochran, and Members of the Committee,

Pacific Biodiesel supports SB 2768 SD1 which requires the Hawaii State Energy Office to adopt rules establishing a clean fuel standard for gasoline and diesel fuel in the State.

A Clean Fuel Standard (CFS) for Hawaii is an essential policy that will enable the state to meet its decarbonization goals, while reducing air and water pollution from the use of fossil fuels in our transportation system.

We support the efforts of the Hawai'i State Energy Office (HSEO) to clarify and improve the bill.

Major investments are needed in firm renewable energy to meet Hawaii's mandate to reach 100% renewable energy by 2045.

A. Hawaii's utility companies rely on and need more of Pacific Biodiesel's locally produced firm renewable energy. HRS section 269-92(a) requires each electric utility company that sells electricity for consumption in the State to establish a renewable portfolio standard of forty percent of its net electricity sales by December 31, 2030, seventy percent of its net electricity sales by December 31, 2040, and one hundred percent of its net electricity sales by December 31, 2045. In order for electric utility companies to meet the required renewable portfolio standards by 2045, an indispensable component of the electric utility companies' renewable portfolio standard must include sufficient locally sourced firm renewable energy sources to offset the intermittent nature of wind and solar power renewable energy.

B. Speaking for the liquid biofuels industry, it is well known that the cost to move from 70% to 100% renewables will be extremely expensive using any other technology. Biodiesel can cost effectively optimize battery sizing by providing firm renewable power, quickly dispatched at any time. Fast-start, efficient diesel engines – when fueled with clean biodiesel – are enabling higher penetration of intermittent PV and wind assets while maintaining grid stability. Biodiesel allows for an immediate reduction of greenhouse

gas emissions. Our biodiesel is a 100% renewable Advanced Biofuel that is a crucially important firm renewable power source in Hawaii to back up other renewables on the grid. And, more importantly now than ever, Hawaii's locally produced biodiesel is supporting energy security in our island state and reducing reliance on imported fossil fuel. **It is a direct replacement for petroleum diesel fuel that can be used right now in any diesel engine without modification, helping to reduce greenhouse gas emissions by 86% compared to petroleum diesel.** The diesel engine is NOT the problem. Petroleum diesel FUEL – fossil fuel – used in efficient diesel engines is the problem. **Biodiesel has one of the lowest carbon footprints of any fuel.** A California Air Resources Board (CARB) report* shared findings that total greenhouse gas (GHG) reductions from biomass-based diesel were three times the total reductions from electric vehicles. In Hawaii, where the carbon intensity of our electricity grid is significantly higher than the US average, the assumption would be an even greater GHG reduction with the use of 100% biodiesel compared to EVs charged by an electricity grid that is currently only 30% powered by renewables.

C. Our locally produced 2nd Generation biodiesel is produced from recycled used cooking oil from Hawaii and recycled used cooking oil from the mainland. Increasing production using locally grown or recycled feedstock is our goal, and that goal is becoming reality at our new project on Kauai. Pacific Biodiesel and other companies need this incentive to increase local production with from local feedstock over the next 20 years. That is how we achieve energy independence.

The further we move towards our goal of 100% renewable, the more critical firm energy like liquid biofuel sources will be. At Pacific Biodiesel's refinery on Hawaii Island, we produce 6 million gallons per year of premium distilled biodiesel – the equivalent of 220 MWh per DAY of 100% renewable energy for Hawaii. **But, building up the supply is a long process. We must accelerate implementation and support additional local production now to meet expanding demand in the future and to ensure that our firm energy needs can be met with firm renewable energy by 2045**.

Mahalo,

Sincerely,

Robert A. King, President
Pacific Biodiesel Technologies, LLC

March 10, 2024

The Honorable Nicole Lowen, Chair
Committee on Energy and Environmental Protection
Hawaii House of Representatives
Honolulu, HI

Re: Vote "Yes" on SB 2768_SD1 – Implements a Clean Fuel Standard for Hawaii

Dear Chair Lowen & Members of the EEP Committee,

I write on behalf of the Biotechnology Innovation Organization (BIO) – the world's largest biotechnology focused trade group with members that produce agricultural, environmental, industrial, and health care products - to express strong support for Senate Bill 2768_SD1, legislation implementing a clean fuel standard (CFS) for Hawaii.

The transportation sector currently accounts for a substantial 60% of Hawaii's CO2 emissions, making it imperative to adopt effective measures to reduce the state's carbon footprint. A Hawaii CFS, however, will reduce the environmental impact of the state's transportation sector by reducing harmful emissions Indeed, the CFS, utilizing a science-based "carbon intensity" metric to assess the life cycle of greenhouse gases, has proven successful in states like Washington, Oregon, California, and across Canada. Just last week, New Mexico – the country's second largest oil producing state – enacted a CFS.

California's CFS has helped displace over 25 billion gallons of petroleum fuel since the state's CTFS went into effect in 2011. Moreover, the volume of cleaner, low-carbon fuels supplied for use in the state has nearly tripled and, as of 2023, California's current diesel fuel supply is over 50 percent bio-mass-based. Meanwhile, Oregon cut approximately 3.1 million tons of greenhouse gasses in the first three years of its CFS.

It is important to note that the CFS is not a mandate but rather an incentive program designed to encourage emission reduction in all transportation fuels. The program's flexibility allows producers to choose how they reduce emissions—whether through the use of renewable fuels or the acquisition of credits—it empowers the market to drive innovation.

The program's technology-neutral stance further encourages the introduction of new and diverse renewable fuels to the market. Furthermore, SB 2768_SD1 will spur investments in clean fuel technology in the state, generating new businesses, creating jobs, and growing the state's economy.

In a nutshell, SB 2768_SD1 is an important piece of legislation that can diversify Hawaii's economy, protect the environment, combat climate change, and establish Hawaii as a leader in a national transition to clean fuels. **For these and many other reasons BIO strongly supports SB 2768_SD1 and respectfully asks that you vote "yes" on bill.**

I appreciate your time and urge you to contact me at gharrington@bio.org or 202-365-6436 if you have any questions.

Sincerely,

Gene Harrington
Senior Director, State Government Affairs, Agriculture & Environment

Hawaiian Electric

TESTIMONY BEFORE THE HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

SB 2768, SD1
Relating to Greenhouse Gas Emissions

Tuesday, March 12, 2024
9:00 AM
State Capitol, Conference Room 325

Nicholas O. Paslay
Director, Power Supply Fuels Division
Hawaiian Electric

Dear Chair Lowen, Vice Chair Cochran, and Members of the Committee,

My name is Nicholas O. Paslay and I am testifying on behalf of Hawaiian Electric regarding SB 2768, SD1, Relating to Greenhouse Gas Emissions.

The company supports a clean fuel standard; however, the bill as written doesn't clearly state if renewable fuel used for power generation is including in the fuel standard and doesn't exempt diesel fuel used for power generation. The company is concerned that if passed as written the result will be higher electric rates for the company's customers. The company respectfully offers the amendments below for the committee's consideration so that renewable fuel used for power generation is also included in the clean fuel standard and diesel used for power generation is exempt to minimize impacts to electric rates.

> On page 5 lines 15-17 (see underscored and strikethrough for amendments)
> Exemptions for diesel, gasoline, or other fuels used
> by aircraft, railroad locomotives, military vehicles, power generation
> and interstate waterborne vessels;

> On page 6 lines 17-21 (see underscored and strikethrough for amendments)
> Mechanisms whereby alternative fuel can opt in to the
> clean fuel program to generate credits when it

displaces the combustion of gasoline or diesel in off-road, heating, cooling, and ~~temporary~~ power generation;

On page 8 lines 7-10 (see underscored and strikethrough for amendments) "Alternative fuel" means any fuel that is. used in transportation or power generation and derived from municipal solid waste, agriculture or forestry practices, construction waste, animal or food waste, or other biogenic biomass sources.

Accordingly, Hawaiian Electric recommends the above amendments to SB 2768, SD1. Thank you for this opportunity to testify.

March 12, 2024

TESTIMONY IN SUPPORT TO SENATE BILL 2768 SD1
RELATING TO GREENHOUSE GAS EMISSIONS

House Committee on Energy & Environmental Protection
The Honorable Nicole Lowen, Chair
The Honorable Elle Cochran, Vice Chair
Tuesday, March 12, 2024, 9:00 am
VIA VIDEOCONFERENCE
Conference Room 325
State Capitol
415 South Beretania Street

Chair Lowen, Vice Chair Cochran and members of the Committee,

Island Energy Services, LLC ("IES") offers the following testimony in SUPPORT to SB 2768 SD1 which proposes the implementation of a Clean Fuel Standard (CFS) for Hawai'i.

IES is a locally managed and headquartered integrated logistics and retail fuel supplier providing over 20% of the liquid energy needs of the State of Hawai'i. Our operations extend across all islands with major assets on Oahu, Maui, Kauai, and Hawaii Island. At IES, our local workforce of 285 employees takes tremendous pride in serving our customers safely, environmentally responsibly, reliably, efficiently with cost competitive products and services. Whether you and or your goods are moving by air, land, or sea, IES is there to support island residents now and into the future. As for the future, IES is collaborating with other partners to transition Hawai'i's energy supply to ever cleaner sources of power including, energy efficient operations, PV solar, hydrogen and biofuels such as renewable fuels for electrical power generation, ground and marine transportation and sustainable aviation fuel (SAF) for airplanes.

IES is in favor of this bill as it provides the means to provide market forces to encourage lowering the carbon intensity of transportation fuels used in the state. This measure is critical in addressing the environmental challenges associated with using fossil fuels in our transportation sector and aligns with the state's goal of achieving 100% clean energy by 2045.

The CFS program's flexibility is a key factor in its potential success. By allowing producers to choose how they reduce emissions—whether through the use of renewable fuels or the acquisition of credits—it empowers the market to drive innovation. The program's technology-neutral stance further encourages the introduction of new and diverse renewable fuels to the market.

Although in favor of the bill, IES also supports the comments and recommendations of the Hawaii State Energy Office to broaden the definition of fuels to be included in the program:

SB 2768 proposes to enforce a CFS on diesel, gasoline, and alternative fuels, the latter of which is defined as “any fuel that is used in transportation and derived from municipal solid waste, agriculture or forestry practices, construction waste, animal or food waste, or other biogenic biomass sources.” However, other state fuel standards, such as those in Washington State and Oregon have CFS that apply to gasoline, gasoline substitutes, diesel, and diesel substitutes. California LCFS program is even more broad. IES suggests that a broaden scope of the definition of “alternative fuels” in the CFS include electricity and a broader range of alternative fuels.

In conclusion, SB2768 SD1 represents a crucial step towards achieving Hawaii's clean energy goals and addressing the carbon emissions from the transportation sector. We support this legislation, recognizing its potential to promote innovation, create employment opportunities, and contribute to a cleaner and more sustainable future for the state.

We thank the Senate Ways & Means Committee for hearing this bill and thank you for the opportunity to testify.

Albert D.K. Chee, Jr.

Vice President

SanHi
GOVERNMENT STRATEGIES
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: March 11, 2024

TO: Representative Nicole Lowen
Chair, Committee on Energy and Environmental Protection

Representative Elle Cochran
Vice Chair, Committee on Energy and Environmental Protection

Submitted Via Capitol Website

FROM: Jena Matila

RE: **S.B. 2768, S.D. 1- Relating to Greenhouse Gas Emissions**
Hearing Date: Tuesday, March 12, 2024 at 9:00 a.m.
Conference Room: 325

Dear Chair Lowen, Vice Chair Cochran, and members of the Committee on Energy and Environmental Protection:

On behalf of Amazon, we submit this testimony in support of S.B. 2768, S.D. 1, and the effort to establish a Low Carbon Fuel Standard (LCFS) to reduce carbon emissions from transportation fuels. Amazon supports a LCFS as a cost-effective strategy to accelerate the transition to lower carbon vehicles and fuels for consumers and companies.

In 2019, Amazon co-founded The Climate Pledge, a commitment to be net-zero carbon by 2040—10 years ahead of the Paris Agreement. They are making bold investments to meet this goal by reducing transportation-related emissions through improved fulfillment network efficiencies and optimizing their supply chain.

Additionally, Amazon is transitioning to all-electric delivery vans by 2030 to avoid millions of metric tons of carbon per year and have installed over 12,000 EV chargers at more than 100 Amazon delivery stations across the US. They are also buying more sustainable aviation fuel than any other company that moves cargo and are excited about the promise of green hydrogen.

After launching The Climate Pledge, Amazon invited other companies to join and now have more than 450 signatories across 41 countries around the world. They believe the LCFS will accelerate the transition to sustainable fuels and vehicles and enable Hawai'i to serve as a national leader in transportation decarbonization.

Partnership will be required across all sectors to continue to meet the transformation required in infrastructure, products, and services. Amazon looks forward to continued collaboration to achieve shared goals to drive climate progress and economic growth.

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SB-2768-SD-1
Submitted on: 3/8/2024 5:22:40 PM
Testimony for EEP on 3/12/2024 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
B.A. McClintock	Individual	Comments	Written Testimony Only

Comments:

Many of us won't even be around in 2060. This is a ridiculous time frame! We need this law sooner.