



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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MARK B. GLICK  
CHIEF ENERGY OFFICER

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Testimony of  
**MARK B. GLICK, Chief Energy Officer**

before the  
**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

Wednesday, April 17, 2024  
2:00 PM  
State Capitol, Conference Room 423 and Videoconference

In Support of  
**SCR 97, SD1, HD1**

**REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONVENE A  
RENEWABLE LIQUID FUELS WORKING GROUP TO STUDY LOCAL  
PRODUCTION, DEVELOPMENT, AND INCENTIVES FOR RENEWABLE LIQUID  
FUELS.**

Chair Nakashima, Vice Chair Sayama, and members of the Committee, the Hawai'i State Energy Office (HSEO) supports SCR 97, SD1, HD1, requesting HSEO to convene a renewable liquid fuels working group to study local production and potential incentives for renewable liquid fuels for use in the transportation sector.

Hawai'i's energy strategy seeks to establish an affordable, clean, resilient, and diversified energy resource portfolio. HSEO agrees with the merit of convening local experts to identify potential opportunities, synergies, and barriers for these fuels. The proposed group would have the opportunity to inform the production and use of renewable liquid fuels derived from sustainable sources, that can reduce dependency on imported fossil fuels and stimulate the local economy.

Renewable liquid fuels have the potential to decrease carbon emissions from transportation, especially in aircraft and medium and heavy-duty vehicles. However, the Decarbonization Report prepared by HSEO pursuant to Act 238 (2022) and submitted to the Hawai'i Legislature in December of 2023 pointed out that renewable liquid fuels

have widely varying environmental and cost profiles, depending on a variety of factors.<sup>1</sup> The proposed working group could bring together the appropriate energy stakeholders to meaningfully engage in a review of resource potential, approaches, strategies, quantities, and associated incentives and recommendations for local production of renewable liquid fuels.

HSEO is committed to the near-term development of effective solutions for renewable liquid fuels, and requests that the scope and timeline in the current version of this resolution not be modified.

HSEO notes that this unfunded, multi-part evaluation involves numerous parties, and is somewhat complex. In order to provide a focused evaluation, consistent with the stated objectives of the resolution and with the highest chance of reportable results within the timeframe, HSEO recommends retaining the current focus on transportation fuels; providing for an interim report, with recommendations, by January; and providing a final report twelve months later. This way, any topics that are still under discussion in the first phase can be presented in draft form, at least, by January, including supporting information as it exists at the time.

HSEO looks forward to supporting this sector of the energy economy.

Thank you for the opportunity to testify.

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<sup>1</sup> Hawai'i State Energy Office (2023). Hawai'i Pathways to Decarbonization Report to the 2024 Hawai'i State Legislature Act 238 (SLH 2022). Available at: [https://energy.hawaii.gov/wp-content/uploads/2022/10/Act-238\\_HSEO\\_Decarbonization\\_FinalReport\\_2023.pdf](https://energy.hawaii.gov/wp-content/uploads/2022/10/Act-238_HSEO_Decarbonization_FinalReport_2023.pdf) pages 105 and 113

# AIRLINES COMMITTEE OF HAWAII



Daniel K. Inouye International Airport  
300 Rodgers Blvd., #62  
Honolulu, Hawaii 96819-1832  
Phone (808) 838-0011  
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Representative Mark Nakashima, Chair  
Representative Jackson Sayama, Vice Chair  
Committee on Consumer Protection & Commerce

Wednesday, April 17, 2024; 2:00 p.m.  
Conference room 423 & Videoconference

**RE: SCR 97 SD1 HD1 Requesting the Hawaii State Energy Office to Convene a Renewable Liquid Fuels Working Group to Study Local Production, Development, and Incentives for Renewable Liquid Fuels – IN SUPPORT**

Aloha Chair Nakashima, Vice Chair Sayama and Members of the Committee:

The Airlines Committee of Hawaii (ACH), comprised of 20 signatory air carriers that serve the State of Hawaii, appreciates the opportunity to offer testimony in support of SCR 97 SD1 HD1 - Requesting the Hawaii State Energy Office to Convene a Renewable Liquid Fuels Working Group to Study Local Production, Development, and Incentives for Renewable Liquid Fuels.

The ACH represents both domestic and international carriers, and sustainable aviation fuel initiatives are a priority of our industry. We look forward to participating in the working group.

Thank you for the opportunity to submit testimony. We ask for your favorable consideration in passing this resolution.

Sincerely,

Airlines Committee of Hawaii Executive Committee

A handwritten signature in black ink, appearing to read "B. Baker".

Brendan Baker

A handwritten signature in black ink, appearing to read "Mark Berg".

Mark Berg

A handwritten signature in blue ink, appearing to read "David Sellers".

David Sellers

A handwritten signature in black ink, appearing to read "Randall Fiertz".

Randall Fiertz

A handwritten signature in black ink, appearing to read "Richard Ide".

Richard Ide

*\*ACH members are Air Canada, Air New Zealand, Alaska Airlines, All Nippon Airways/Air Japan, Aloha Air Cargo, American Airlines, China Airlines, Delta Air Lines, Federal Express, Fiji Airways, Hawaiian Airlines, Japan Airlines, Korean Airlines, Philippine Airlines, Qantas Airways, Southwest Airlines, Sun Country, United Airlines, United Parcel Service, and WestJet.*



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April 17, 2024

HEARING BEFORE THE  
HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

**TESTIMONY ON SCR 97, SD1, HD1**  
REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONVENE A RENEWABLE  
LIQUID FUELS WORKING GROUP TO STUDY LOCAL PRODUCTION, DEVELOPMENT,  
AND INCENTIVES FOR RENEWABLE LIQUID FUELS

Conference Room 423 & Videoconference  
2:00 PM

Aloha Chair Nakashima, Vice-Chair Sayama, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate, and advance the social, economic, and educational interests of our diverse agricultural community.

**The Hawai'i Farm Bureau supports SCR 97, SD1, HD1**, which requests the Hawai'i State Energy Office to convene a renewable liquid fuels working group to study local production, development, and incentives for renewable liquid fuels.

Renewable energy production using biofuels can play a critical role in helping Hawai'i reach the goal of one hundred percent renewable energy by 2045, help to diversify Hawai'i's economy and agricultural sector, reduce greenhouse gas emissions, and reduce our dependence on imported oil.

HFB supports the production of dedicated energy crops, crop residues, and agricultural wastes into economically and environmentally sustainable biofuels and value-added byproducts such as livestock feed.

Finding viable uses for agricultural lands that will encourage environmental sustainability and produce positive economic cash flow for Hawai'i is a critical need. Locally grown biofuel feedstocks offer significant benefits for our farmers. These crops can thrive on marginal land, improving soil health and reducing erosion. They require less water and fertilizer than traditional row crops. By creating a demand for these crops, the renewable fuels industry can revitalize rural communities, create new jobs, and diversify farm income streams. Growing biofuel feedstocks locally helps to create new agricultural jobs, encourages food production, and does not compete with food crops when using oil seed cover crops. HFB believes these feedstocks will be able to provide a quality biofuel product and usable byproducts (such as animal feed) to help support Hawai'i's sustainability goals and agricultural, ranching, and dairy sectors of the local economy.

Thank you for the opportunity to comment on this measure.



**April 16, 2024**

Testimony on SCR 97 SD1 HD1

REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONVENE A RENEWABLE LIQUID FUELS WORKING GROUP TO STUDY LOCAL PRODUCTION, DEVELOPMENT, AND INCENTIVES FOR RENEWABLE LIQUID FUELS.

COMMITTEE ON CONSUMER PROTECTION & COMMERCE

Rep. Mark M. Nakashima, Chair  
Rep. Jackson D. Sayama, Vice Chair

Conference Room 423  
State Capitol  
415 South Beretania Street

Dear Chair Nakashima, Vice Chair Sayama, and Members of the Committee:

Thank you for the opportunity to provide supportive comments on SCR 97 SD1 HD1. Airlines for America® (A4A) is the principal trade and service organization of the U.S. airline industry<sup>1</sup>. A4A and its members have a strong climate change record and are committed to working across the aviation industry and with government leaders in a positive partnership to achieve net-zero carbon emissions by 2050, which parallels the Biden administration's goal to achieve net-zero greenhouse gas emissions in the aviation sector by 2050.

Airlines, governments and other aviation stakeholders have recognized that achieving net-zero aviation emissions by 2050 will require a very rapid transition from conventional (fossil) jet fuel to sustainable aviation fuel (SAF). SAF is a drop-in fuel, meaning that it works with existing aircraft engines, pipelines, and storage infrastructure, as long as it is blended up to 50% with conventional jet fuel and qualified to the relevant ASTM standards for alternative jet fuel. Work is underway to approve uses up to 100% SAF. SAF can bring meaningful reductions in aviation carbon emissions, reducing lifecycle emissions intensity of fuel up to 80% compared to conventional jet fuel today, with future pathways having potential for 100% reductions.

Ensuring the sustainability and environmental integrity of feedstocks and the production technology pathways is critical to the continued recognition and acceptance of SAF to achieve the carbon emissions reduction ambitions of aviation. We support establishing strong and robust sustainability and technical requirements based on objective criteria and the latest scientific research. A4A and its members are feedstock and technology neutral for SAF production, we

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<sup>1</sup> A4A's members are: Alaska Airlines, Inc.; American Airlines Group Inc.; Atlas Air, Inc.; Delta Air Lines, Inc.; Federal Express Corporation; Hawaiian Airlines, Inc.; JetBlue Airways Corp.; Southwest Airlines Co.; United Airlines Holdings, Inc.; and United Parcel Service Co. Air Canada, Inc. is an associate member.

firmly believe that any production pathway that can meet robust technical and sustainability requirements should be eligible for incentive programs.

Achieving this rapid transition to SAF requires industry and government to work in partnership, at both the federal and state levels, to expand SAF production capacity across the country. And, we also recognize the unique fiscal challenge the State of Hawai'i is currently facing. A4A and our member airlines value our partnership with the state and believe there is a unique opportunity to jointly develop a market for cost competitive SAF.

Thank you again for the opportunity to provide our support to this effort. Please do not hesitate to contact us if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sean Williams".

Sean Williams  
Vice President, State and Local Government Affairs  
[swilliams@airlines.org](mailto:swilliams@airlines.org)



April 17, 2024

**TESTIMONY IN SUPPORT TO SCR97 SD1 HD1**

**REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONVENE A  
RENEWABLE LIQUID FUELS WORKING GROUP TO STUDY LOCAL  
PRODUCTION, DEVELOPMENT, AND INCENTIVES FOR  
RENEWABLE LIQUID FUELS.**

House Committee on Consumer Protection & Commerce  
The Honorable Mark Nakashima, Chair  
The Honorable Jackson Sayama, Vice Chair  
Wednesday, April 17, 2024, 2:00 pm  
VIA VIDEOCONFERENCE &  
Conference Room 423  
State Capitol  
415 South Beretania Street

Chair Nakashima, Vice Chair Sayama and members of the Committee,

Island Energy Services (IES) supports the intent of SCR97 SD1 HD1 to convene a Renewable Liquid Fuels Working Group to study the local production, development and incentives for renewable liquid fuels. IES believes the input from the “Working Group” is a critical step at this time to set in motion a smooth transition to the stated policy of reducing and ultimately eliminating the use of hydrocarbon-based liquid fuels by 2045. Determining the appropriate steps along an orderly pathway, with the least amount of disruption, will require a concerted effort from a broad range of in-state stakeholders likely informed by experiences from outside of Hawaii. Recognizing that the production of the necessary replacement liquid fuels in sufficient quantities cannot be achieved in its entirety via local production, importation will be paramount to any plan to achieve a fossil-free energy system. As a major local fuel supplier, and Hawaii’s premier importer of liquid fuels, IES believes the formation of a Renewable Liquid Fuels Working Group is the right step and looks forward to contributing to the effort going forward.

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 energy including, biofuels such as renewable fuels for electrical power generation, ground and marine transportation and sustainable aviation fuel (SAF) for airplanes.

We thank the House Consumer Protection & Commerce Committee for hearing this bill and thank you for the opportunity to testify.

Albert D.K. Chee, Jr.  
Vice President





April 17, 2024

**TESTIMONY IN SUPPORT OF SCR 97 SD1 HD1  
REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONVENE A RENEWABLE  
LIQUID FUELS WORKING GROUP TO STUDY LOCAL PRODUCTION,  
DEVELOPMENT, AND INCENTIVES FOR RENEWABLE LIQUID FUELS.**

House Committee on Consumer Protection & Commerce  
The Honorable Mark M. Nakashima, Chair  
The Honorable Jackson D. Sayama, Vice Chair

April 17, 2024, 2:00pm  
Conference Room 423  
State Capitol 415 South Beretania Street

Chair Nakashima, Vice Chair Sayama, and members of the Committee,

Thank you for the opportunity to provide testimony in SUPPORT of SCR 97 SD1 HD1.

SCR 97 SD1 HD1 requests the Hawaii State Energy Office to convene a renewable liquid fuels working group to study local production, development, and incentives for renewable liquid fuels in Hawaii. We support the creation of this working group, which contemplates representation from diverse stakeholders, including airlines, fuel producers, utilities, agriculture and state government, to evaluate existing and potential new incentives for the development and utilization of renewable liquid fuels in Hawaii. We appreciate the opportunity for the airline industry, represented by Airlines for America or one of its member carriers, to have a seat at the table on this working group and contribute to the advancement of this important topic.

Aviation emissions represent a very small part of overall global carbon emissions. Nonetheless, aviation represents a higher proportion of Hawaii's fossil fuel usage, given our unique dependence on air transportation and relatively limited utilization of road fuel. Within Hawaii, it is worth noting that aviation fuel usage is driven predominantly (estimated about 90%) by long-haul travel; with its short flight distances, the intrastate flying on which our community depends drives relatively little fuel consumption. In order to address the existential threat of human-caused climate change, airlines in the U.S. have all committed to reach net-zero in the decades to come.

In line with the broader aviation industry, we view sustainable aviation fuel (SAF) as the most promising technology to advance aviation decarbonization. The U.S. airline industry has pledged to work with government leaders and other stakeholders to make 3 billion gallons of cost-competitive SAF available to U.S. aircraft operators in 2030. SAF is a proven, drop-in fuel, meaning that it is certified for use in existing aircraft engines, pipelines, and storage infrastructure, as long as it is blended up to 50% with conventional jet fuel. SAF can bring meaningful reductions in aviation carbon emissions, with lifecycle emissions intensity up to 50 to 80% lower than conventional jet fuel.

The reality is that while promising alternatives to jet engines lie beyond the horizon, the commercial aviation industry's excellent safety record relies on incremental adoption of new technology. The advantage of SAF is that it is already being used in today's aircraft and engines,



which makes it one of the only credible means of reaching decarbonization goals between now and 2050.

The challenge with SAF is that it is not yet commercially viable, and it is not available at scale, and therefore incentives are needed to drive adoption in the near term. Objective economic analyses have demonstrated that the higher cost of SAF vs. jet fuel today is driven by two factors: (1) the maturity of manufacturing technologies, and (2) the lack of scale in production. Incentives and credits, therefore, are not a perpetual need but a bridge to get biofuel production to maturity and scale, when it can compete successfully against traditional petroleum-based fuels.

Other U.S. states, such as California, Oregon, Washington, Illinois and Minnesota, provide state-level incentives to advance SAF in their states. The State of Hawaii has established an ambitious target to achieve economy-wide net-zero emissions by 2045, and aviation emissions comprise about 50 percent of Hawaii's transportation emissions. If Hawaii wants to attract supply of SAF to address its aviation emissions, it will need incentives that are competitive with other U.S. states. As long as there is scarcity of supply, volume will go to the markets which provide the most value.

SCR 97 SD1 HD1 is opportunity to bring together diverse stakeholders and align industry and government on the development of incentives needed to decarbonize our economy in Hawaii, particularly in the aviation sector which has been deemed a 'hard to decarbonize' sector, while supporting economic development in our state.

Thank you for the opportunity to provide testimony in SUPPORT of this resolution.

Mahalo,

Alanna James  
Managing Director, Sustainability Initiatives  
Hawaiian Airlines



April 16, 2024

**TESTIMONY IN SUPPORT OF SCR 97 SD1 HD1  
REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONVENE A RENEWABLE LIQUID  
FUELS WORKING GROUP TO STUDY LOCAL PRODUCTION, DEVELOPMENT, AND  
INCENTIVES FOR RENEWABLE LIQUID FUELS**

House Committee on Consumer Protection and Commerce (CPC)  
The Honorable Mark M. Nakashima, Chair  
The Honorable Jackson D. Sayama, Vice Chair

Wednesday, April 17, 2024, 2:00 PM  
Conference Room 423 & Videoconference  
Hawaii State Capitol; 415 South Beretania Street

Aloha Chair Nakashima, Vice Chair Sayama, and Members of the Committee,

Thank you for the opportunity to provide testimony in SUPPORT of SCR 97 SD1 HD1. Pono Pacific supports the creation of a Renewable Liquid Fuels Working Group to study local production, development, and incentives, convened by the Hawai'i State Energy Office. We support this resolution and offer the following comments.

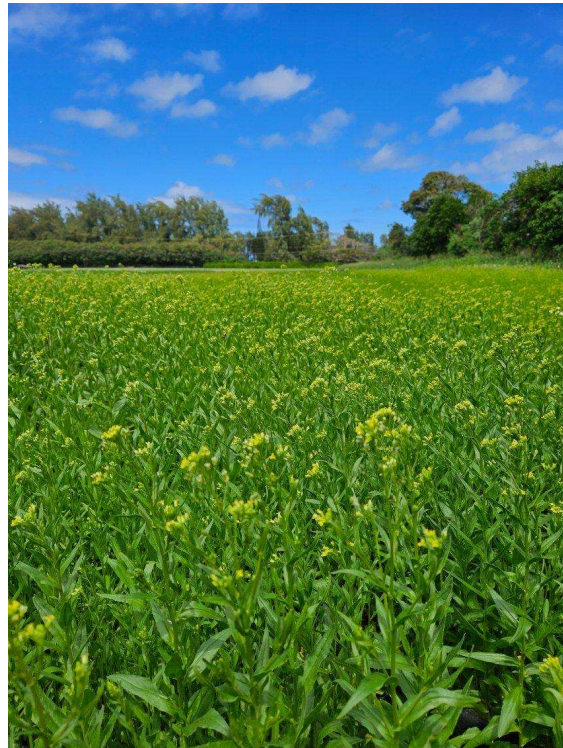
Pono Pacific is the state leader in land management with over 20+ years of experience across the Hawaiian Islands with an emphasis on conservation lands, agriculture, and renewable energy. Pono Pacific has partnered with Par Hawaii to develop a supply of locally grown feedstocks for biofuel production. Locally grown feedstocks will provide farmers with a viable economic commodity to supply the refinery, provide much needed local animal feed, and help put idle lands to work.

Pono Pacific is currently conducting, or will soon be conducting, field trials of Camelina at four sites, including Kuilima Farm on Oahu's North Shore, as well as with partner farmers Mahi Pono on Maui, Meadow Gold Dairies Hawaii on Hawaii Island, and Aloun Farms on Kauai. Our intention is to determine the viability of growing Camelina as a source of locally-produced renewable fuel, including SAF, in different geographic locations and growing conditions. Pono Pacific worked with the Hawaii Natural Energy Institute (HNEI) to assess land areas throughout the State and create a model identifying ideal production sites based on zoning, slope, rainfall, and temperature data. Using this information, we sought out and established relationships with key landowners to begin crop trials. Through our trials, we



are gathering data on methodology, crop management, yield, costs, and mechanization to scale for Camelina production. Seed produced through these trials will be provided to Par Hawaii for quality analysis. Biomass produced will be tilled back into the soil at trial sites to improve soil health and tested for any potential positive impacts to soil conditions, as well as potentially used as animal feed with our crop trial partner Meadow Gold Dairy.

Pono Pacific has gained substantial experience through its ongoing self-performed Camelina crop trials, which we have been working on for a year and have completed several crop rotations. Photo of Camelina at the Kulima Farm crop trial site:







Thank you for the opportunity to share our support and comments on the Renewable Fuels Working Group.

Mahalo,

Chris Bennett  
Vice President of Sustainable Energy Solutions  
Pono Pacific Land Management, LLC



**Par Hawaii**

April 17, 2024

**TESTIMONY IN SUPPORT OF SCR 97, SD1, HD1  
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House Committee on Consumer Protection & Commerce  
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Wednesday, April 17, 2024, 2:00 PM  
Conference Room 423 & Videoconference  
Hawaii State Capitol; 415 South Beretania Street

Aloha Chair Nakashima, Vice Chair Sayama, and members of the Committee,

Thank you for the opportunity to provide testimony in support of SCR 97, SD1, HD1.

Par Hawaii supports SCR 97, SD1, HD1 and appreciates the Legislature taking the lead to initiate a Renewable Liquid Fuels Working Group to study local production, development, and incentives, convened by the Hawai'i State Energy Office. We support the resolutions and offer the following comments.

This working group will be critical to accelerating our state's adoption of renewable liquid fuels to reduce our dependency on fossil fuels and the carbon intensity of the transportation sector. The working group will enable Hawai'i to keep pace with other forward-looking states that have adopted incentives to support the production and use of renewable liquid fuels, including sustainable aviation fuel (SAF) and renewable diesel.

To reach Hawaii's decarbonization goals, it will be necessary to address emissions from the electric and gas utilities. Renewable naphtha and renewable diesel provide options to help Hawaiian Electric, KIUC and Hawaii Gas decarbonize. Therefore, we suggest that Hawaii utilities be participants in the working group.

Additionally, while we believe that the resolution proposes update of January 2025 and final report by January 2026, we respectfully request that the report due by January 2025 must include an update, "*including finding and recommendation and any interim proposed legislation*".

Thank you for the opportunity to share our input and comments on the Renewable Fuels Working Group.

**LATE**



**Testimony to Consumer Protection & Commerce  
April 17, 2024  
2:00 PM  
Conference Room 423 & VIA videoconference  
Hawaii State Capitol**

**SCR 97 SD1 HD1**

Chair Nakashima, Vice Chair Sayama and members of the committee,

Hawaii Gas supports SCR 97 SD1 HD1 requesting the Hawaii State Energy Office to convene a renewable liquid fuels working group to study local production, development, and incentives for renewable liquid fuels.

Since 1904, Hawaii Gas has been a pioneer in the gas industry. Hawaii Gas is again at the leading edge of our industry given our integration of both renewable natural gas (RNG) and hydrogen into our fuel supply mix and distributing it through our utility pipeline system. Hawaii Gas plays a vital role in Hawaii's energy portfolio by providing clean, reliable, and cost-effective energy to over 70,000 customers on all islands, all of whom depend on the company for water heating, cooking, drying, and other commercial and industrial applications. Hawaii Gas continues to look towards new, innovative, and economic ways to incorporate renewable energy sources while also reducing our greenhouse gas emissions.

Renewable liquid fuels, including renewable diesel, naphtha, and sustainable aviation fuels, offer additional solutions for the State to achieve its goal of net zero greenhouse gas emissions while ensuring energy security and fostering economic growth.

The transition to biofuels presents a significant opportunity for Hawaii to reduce its dependency on fossil fuels and mitigate the impacts of climate change. By leveraging Hawaii Gas's technical knowledge and infrastructure, the Biofuels Working Group can accelerate the adoption of renewable fuels across various sectors, including transportation, agriculture, and energy production.

Furthermore, Hawaii Gas's participation in the Working Group will contribute to the diversification of our energy portfolio and enhance energy security for our communities.

We respectfully request to be added to the working group.

Thank you for the opportunity to testify.