HAWAII STATE ENERGY OFFICE
STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR

SYLVIA LUKE
LT. GOVERNOR

MARK B. GLICK
CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 451-6648
Web: energy.hawaii.gov

Testimony of
MARK B. GLICK, Chief Energy Officer

before the
SENATE COMMITTEE ON ENERGY AND INTERGOVERNMENTAL AFFAIRS

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3:15 PM
State Capitol, Conference Room 016 and Videoconference

Providing Comments on
SB 964

RELATING TO WASTE-TO-ENERGY.

Chair Wakai, Vice Chair Chang, and Members of the Committee, the Hawai‘i State Energy Office (HSEO) offers comments on SB 964, which would change the governing statute of HSEO to add a sub-paragraph requiring that HSEO establish a public-private partnership to develop a waste-to-energy generating facility in each county having a population below 800,000.

HSEO prepared “Hawai‘i Statewide Waste-to-Energy Recommendations to the 2025 Legislature” in response to SR 75, SD1, that notes the long history of waste-to-energy (WtE) in Hawai‘i. Hawai‘i has one operational WtE plant, Honolulu Program of Waste Energy Recovery (H-POWER), that has been operating since 1990 and is located on O‘ahu. Recently, several plants have been proposed at the county level across the state, yet only a few of them progressing to the development and operational stages.

O‘ahu also has a pilot WtE project in development, Aloha Carbon, aimed at processing some of the waste that H-POWER cannot, including mostly construction and demolition (C&D) waste. More information on this project can be found at https://alohacarbon.com/. HSEO agrees with the intent to find productive uses for materials that are available in our state, do not have other uses, and cannot be

recycled. Organic and combustible materials can often be used, as pointed out in the bill, to produce energy. HSEO already includes this resource in its work to promote and assist renewable energy technologies, as waste is included in the Renewable Portfolio Standard.

Maui also has a pilot project in the early stages that aims to produce compressed renewable natural gas from municipal solid waste (MSW). Some of the proposed plants that did not make it to development include proposals for a plant on Kaua‘i, Maui, and Moloka‘i.

In the conclusion to HSEO’s WtE report to the legislature, it noted while H-POWER has no room for growth on O‘ahu, the other counties could benefit from WtE. For WtE projects to be successful in Hawai‘i, Maui, and Kaua‘i counties, they need to consider the lessons learned from the previously proposed projects that faced overwhelming opposition, from the benefits and drawbacks of H-POWER, and from the successful projects across Japan and Europe. Proposed WtE plants should not overestimate capacity; they should consider public and stakeholder engagement and involvement to acquire more public support; they should ensure that workforce, environmental, health, and community concerns are all priorities; and they should be accompanied by strong county waste management plans.

Specifically, the Hawai‘i State Energy Office (HSEO) recommends no further expansion of WtE on O‘ahu, except for projects aimed at waste that cannot be landfilled, as Aloha Carbon is attempting to accomplish. HSEO recommends that Maui, Kaua‘i, and Hawai‘i counties introduce WtE plants to deal with their waste and their ever-shrinking land and landfill space and to help bring them closer to carbon neutrality.

If Maui were to use all of its combustible MSW that would be 78,104 tons, which would be on the larger end of the WtE plants in Japan, meaning Maui could have a plant that produces between 5-10 MW of energy. If Kaua‘i County used all of their combustible waste, that would be around 68,067 tons which would be about a mid-sized WtE plant in Japan, meaning they could likely have a plant producing around 5 MW of energy. Lastly, if Hawai‘i County were to use all of its combustible waste this would be 171,426 tons which would be on the large end of Japan’s WtE plants producing around 10 MW of energy.

Public-private partnerships may not meaningfully be the solution to enable such WtE opportunities, especially on a statewide basis. In addition to the normal market challenges to finance and develop projects due to economics and scale, the current language overseeing solid waste management in Hawai‘i under HRS chapter 342H makes the siting of even small projects in Hawaii involving waste extremely complicated.

In light of these developments, HSEO respectfully suggests that rather than requiring a statutory provision for HSEO to establish public-private partnerships to develop a WtE generating facility in each county having a population below 800,000, the Legislature consider addressing known barriers present in existing law that may increase the potential for success of technically, environmentally, and economically feasible projects. In that endeavor, HSEO stands ready to assist.

Thank you for the opportunity to testify.