THE SENATE
THIRTY-SECOND LEGISLATURE, 2024
STATE OF HAWAII

S.C.R. NO. 134

MAR 0 8 2024

SENATE CONCURRENT RESOLUTION

REQUESTING THE HAWAII STATE ENERGY OFFICE TO CONDUCT A STUDY OF THE DIFFERENT ENERGY CONSUMPTION SECTORS TO DETERMINE WHICH MAY BE MOST QUICKLY AND COST-EFFECTIVELY DECARBONIZED THROUGH ADDITIONAL PUBLIC INVESTMENTS IN COMBUSTION-FREE ALTERNATIVES.

WHEREAS, it is important to use state taxpayer funds wisely to support a clean environment without speculative investments, unnecessary subsidies, or promotion of energy technologies or fuels that conflict with the State's climate change goals or the peoples' constitutional right to a clean and healthful environment under article XI, section 9, of the State Constitution; and

WHEREAS, there are three sectors of energy that is traced by the United States Energy Information Administration--electricity, transportation, and heating--with heating further broken down into industrial, commercial, and residential sectors; and

WHEREAS, modern energy conservation, efficiency, storage, and solar and wind technologies meet the needs of the electricity sector and can be made as firm as needed through decentralization and adequate storage capacity; and

WHEREAS, residential and commercial cooking, space, and water heating needs are easily electrified with existing technology, including ground- and air-source heat pumps and hybrid electric water heaters; and

WHEREAS, industrial heating needs are increasingly attainable using a combination of concentrated solar, electricity, and, if necessary, green hydrogen sources from wind and solar; and

WHEREAS, land-based transportation, including heavy haul trucking, is now possible to fully electrify so that it can be powered on clean, non-burn, electricity sources; and

WHEREAS, ocean-based transportation is now possible to fully electrify, as international cargo ships may use batteries, stationary wind masts, or a combination thereof; and

WHEREAS, inter-island air-travel may be accomplished with electric sea gliders, a possibility which Hawaiian Airlines is already exploring; and

WHEREAS, inter-continental air travel remains the sector that is hardest to convert to clean energy, although Airbus aims to bring to market the world's first hydrogen-powered commercial aircraft by 2035; and

WHEREAS, combustible carbon-based fuels release greenhouse gasses and other harmful air pollutants; and

WHEREAS, the production of burnable fuels has many other environmental consequences, including water and soil depletion, the spread of genetically modified organisms, reduction of land used for food production, and, if using waste streams to make fuel, the release of toxic chemicals and solid waste byproducts; and

WHEREAS, hydrogen production and use carries many of the same production problems as burnable fuels unless it is achieved by the electrolysis of water using wind and solar power, resulting in green hydrogen; and

WHEREAS, the energy lost in the conversion of water to hydrogen is so significant that it would be wasteful to use clean energy for the production of hydrogen until the electrical grid is running almost entirely on clean energy and there is an excess of wind and solar energy, which may be stored as hydrogen when not immediately needed; and

WHEREAS, Hawaii's Renewable Portfolio Standard law requires electric utilities in the State to provide one hundred percent

renewable energy by 2045, and the State was close to thirty-five percent in 2023; and

WHEREAS, technologies converting waste into fuel are highly speculative, controversial, and polluting, and often fail to operate at a commercial scale, regularly falling apart technically, economically, or both; and

WHEREAS, when all carbon releases are properly accounted for, the climate impacts of biomass and waste-based biofuels are close to, or greater than the climate impacts of the petroleum products they would replace; and

WHEREAS, investing in infrastructure intended to transition to cleaner options in later years is an investment dead end that makes it harder, politically and economically, to take the next step of replacing combustion-based fuels that are currently being marketed as clean or sustainable fuels; and

WHEREAS, it is wise to spend public funding first on clean, combustion-free solutions that already exist, focusing on energy sectors where those solutions are not yet fully implemented; now, therefore,

BE IT RESOLVED by the Senate of the Thirty-second Legislature of the State of Hawaii, Regular Session of 2024, the House of Representatives concurring, that the Hawaii State Energy Office is requested to conduct a study of the different energy consumption sectors to determine which may be most quickly and cost-effectively decarbonized through additional public investments in combustion-free alternatives; and

BE IT FURTHER RESOLVED that the Hawaii State Energy Office is requested to submit a report of its findings and recommendations, including any proposed legislation, to the Legislature no later than twenty days prior to the convening of the Regular Session of 2025; and

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BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the Governor and Chief Energy Officer.

OFFERED BY: _____