THE SENATE
THIRTY-THIRD LEGISLATURE, 2025
STATE OF HAWAII

S.C.R. NO. 106

MAR 07 2025

SENATE CONCURRENT RESOLUTION

REQUESTING THE OFFICE OF PLANNING AND SUSTAINABLE DEVELOPMENT TO COMMISSION A STUDY OF THE DIFFERENT ENERGY CONSUMPTION SECTORS TO DETERMINE WHICH SECTOR CAN BE MOST QUICKLY AND COST-EFFECTIVELY DECARBONIZED THROUGH ADDITIONAL PUBLIC INVESTMENT IN COMBUSTION-FREE ALTERNATIVES.

WHEREAS, it is important to use Hawaii taxpayer funds wisely to create the most benefit for the State 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 Hawaii State Constitution; and

WHEREAS, the settlement to *Navahine F. v. Hawaii Department of Transportation*, Civ. No. 1CCV-22-0000631 requires that the State establish a Greenhouse Gas Reduction Plan that can achieve a goal of zero greenhouse gas emissions across all transportation modes within the State, including ground transportation and sea and air interisland transportation no later than 2045; and

WHEREAS, combustion of hydrocarbons of any sort, even if derived from biomass or waste, releases greenhouse gases and cannot be considered zero emissions; and

WHEREAS, the goal of the Greenhouse Gas Reduction Plan can only be accomplished by electrifying all transportation modes and by ensuring that the State's electric grid is also zero greenhouse gas emissions (i.e. combustion-free); and

WHEREAS, there are three sectors of energy use as tracked by the United States Energy Information Administration: electricity, transportation, and heating, with heating further broken down into industrial, commercial, and residential sectors; and

WHEREAS, technology exists today to fully meet the needs of the electricity sector using conservation, energy efficient appliances, and solar, wind, and energy storage, which can be made as firm as needed through decentralization and adequate storage capacity; and

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

WHEREAS, it is possible to fully electrify land-based transportation, including heavy trucking, so that trucks and other land-based transportation modes can be powered by clean, non-burn, electricity sources; and

WHEREAS, it is possible to fully electrify ocean-based transportation, including international cargo ships, with batteries and even stationary wind masts; and

WHEREAS, inter-island air-travel can be accomplished with electric sea gliders, as Hawaiian Airlines is already exploring; and

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

WHEREAS, combustible carbon-based fuels release greenhouse gases as well as other harmful air pollutants, and the production of burnable fuels has many other environmental implications, including the use of precious land for fuel instead of food, depletion of water and soils, spread of genetically modified organisms, and, if using waste streams to make fuel, release of toxic chemicals and solid waste byproducts; and

WHEREAS, hydrogen energy production and use contains many of the same production problems unless green hydrogen is produced through the electrolysis of water using wind and solar

power; however, the energy losses in converting water to green hydrogen are so significant that it makes no sense to use clean energy to produce green hydrogen until the electric grid is running almost entirely on clean energy and there is excess of wind and solar energy to spare, which can be stored as green hydrogen when not needed directly; 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 reaching a renewable portfolio standard of thirty-five percent in 2023; and

WHEREAS, technologies that turn waste into fuels are highly speculative, controversial, and polluting, and typically fail to operate at a commercial scale, usually 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 more difficult politically and economically to progress into replacing combustion-based fuels that are currently marketed as clean or sustainable fuels; and

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

BE IT RESOLVED by the Senate of the Thirty-third Legislature of the State of Hawaii, Regular Session of 2025, the House of Representatives concurring, that the Office of Planning and Sustainable Development is requested to commission a study of the different energy consumption sectors to determine which sector can be most quickly and cost-effectively decarbonized through additional public investment in combustion-free alternatives; and

S.C.R. NO. 106

BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the Governor and Director of the Office of Planning and Sustainable Development.

OFFERED BY: