THE SENATE THIRTY-SECOND LEGISLATURE, 2023 STATE OF HAWAII S.B. NO. 634

JAN 2 0 2023

### A BILL FOR AN ACT

RELATED TO RENEWABLE ENERGY.

#### BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that electricity rates 2 are a significant component of household budgets and should be 3 reduced where feasible. In recent years, the costs of 4 alternative energy sources such as solar and wind power (backed 5 up by battery and other means of storage) have dropped below the costs of power from most existing power plants fueled by fossil 6 7 fuels, wood, or trash. For example, the costs of the Kauai 8 island utility cooperative's Lawai solar and energy storage 9 project averages eleven cents per kilowatt hour, far below the 10 cost of biomass plants. With improved battery and storage 11 technologies, alternative renewable sources can be just as 12 reliable as power plants that burn wood, trash, or fossil fuels. 13 The legislature further finds that the existing power 14 plants that burn fossil fuels, wood, or trash are major 15 contributors to climate warming. Climate warming is caused by 16 excessive greenhouse gasses in the atmosphere. The most 17 prevalent greenhouse gas is carbon dioxide, which is emitted

2023-0688 SB SMA.docx 

1 when trash, trees, coal, oil, or gas are burned. According to
2 the National Aeronautics and Space Administration, once carbon
3 dioxide is emitted, it stays in the atmosphere for three hundred
4 to one thousand years. Actions taken now to reduce the emission
5 of carbon dioxide will affect the livability of the planet for
6 generations.

7 The legislature further finds that recent data show that 8 the rate and intensity of climate warning is greater than 9 predicted. The years from 2013 to 2021 all rank among the ten 10 warmest years on record, according to the National Oceanic and 11 Atmospheric Administration's National Centers for Environmental 12 Information.

13 The legislature further finds that twenty years ago, the 14 legislature established the State's renewable portfolio 15 standards model to ensure that the State's electric utility 16 companies transition from using fossil fuels to renewable 17 energy. At the time, biomass was considered a carbon neutral 18 energy source. Two major sources of biomass combustion are the 19 burning of trees and the burning of waste.

20 The legislature further finds that burning trees will add21 to climate warming for at least the next several decades or



1 longer. Trees remove greenhouse gasses from the atmosphere, but 2 mature trees remove more carbon than saplings and it takes 3 decades to regrow mature trees. Burning trees is fifty per cent 4 worse for the climate than burning coal because of reduced 5 removal of carbon from the atmosphere, missions, and lower 6 efficiency.

7 The legislature further finds that waste incineration is 8 the most expensive and polluting way to manage waste or make 9 energy. For the same energy output, trash incineration produces 10 sixty-five per cent more pollution than burning coal. Compared 11 to landfilling, trash burning releases twice as much carbon 12 pollution.

13 The legislature further finds that in order to reduce both 14 electricity rates and greenhouse gasses, the State should 15 disincentivize expensive and polluting biomass incineration by 16 eliminating biomass from the renewable portfolio standard.

17 Accordingly, the purpose of this Act is to remove biomass 18 from the renewable portfolio standard definition of renewable 19 energy.



Page 3

| 1  | SECT   | ION 2. Section 269-91, Hawaii Revised Statutes, is    |
|----|--|---|
| 2  | amended by amending the definition of "renewable energy" to read |   |
| 3  | as follows:  |   |
| 4  | ""Renewable energy" means energy generated or produced           |   |
| 5  | using the  | following sources:                                    |
| 6  | (1)  | Wind;   |
| 7  | (2)  | The sun;  |
| 8  | (3)  | Falling water;  |
| 9  | (4)  | Biogas, including landfill and sewage-based digester  |
| 10 |  | gas;  |
| 11 | (5)  | Geothermal;   |
| 12 | (6)  | Ocean water, currents, and waves, including ocean     |
| 13 |  | thermal energy conversion;                            |
| 14 | [ <del>(7)</del>   | Biomass, including biomass-crops, agricultural and    |
| 15 |  | animal residues and wastes, and municipal solid waste |
| 16 |  | and other solid waste;                                |
| 17 | <del>(8)</del> ]   | (7) Biofuels; and                                     |
| 18 | [ <del>(9)</del> ]   | (8) Hydrogen produced from renewable energy sources." |
| 19 | SECT   | ION 3. Statutory material to be repealed is bracketed |
| 20 | and stricken. New statutory material is underscored.             |   |



1 SECTION 4. This Act shall take effect upon its approval.

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INTRODUCED BY: Wike Habbard



#### Report Title:

Renewable Energy; Renewable Portfolio Standards; Definition; Biomass

### Description:

Removes biomass from the renewable portfolio standard definition of renewable energy.

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