

JAN 17 2024

A BILL FOR AN ACT

RELATING 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
6 costs of power from most existing power plants fueled by fossil
7 fuels (coal, oil, or natural gas), wood, or trash. For example,
8 the costs for the Kauai Island Utility Cooperative's Lawai Solar
9 and Energy Storage Project average eleven cents per kilowatt
10 hour, far below the cost of biomass plants. With improved
11 battery/storage technologies, alternative renewable sources now
12 can be just as reliable as plants that burn wood, trash, or
13 fossil fuels.

14 In addition, the existing power plants that burn fossil
15 fuels, wood, or trash are major contributors to climate warming.
16 Climate warming is caused by excessive greenhouse gasses in the
17 atmosphere. The most prevalent greenhouse gas is carbon



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

7 Recent data show that the rate and intensity of climate
8 warming is greater than predicted. The years from 2013-2021 all
9 rank among the ten warmest years on record, according to NOAA's
10 National Centers for Environmental Information.

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

17 However, burning trees will actually add to climate warming
18 for at least the next several decades or longer. Trees remove
19 greenhouse gasses from the atmosphere, but mature trees remove
20 more carbon than saplings and it takes decades to regrow mature
21 trees. Burning trees is fifty per cent worse for the climate



1 than burning coal because wood is a less energy-dense fuel and
2 much more must be burned to get the same amount of energy.

3 Waste incineration is the most expensive and polluting way
4 to manage waste or to make energy. For the same energy output,
5 trash incineration releases sixty-five per cent more carbon
6 dioxide than burning coal. Compared to landfilling, trash
7 burning releases significantly more carbon pollution and is far
8 more polluting generally.

9 In order to reduce both electricity rates and greenhouse
10 gasses, we should immediately disincentivize expensive and
11 polluting biomass incineration by eliminating biomass from the
12 renewable portfolio standard.

13 Accordingly, the purpose of this Act is to remove biomass
14 from the renewable portfolio standard definition of "renewable
15 energy".

16 SECTION 2. Section 269-91, Hawaii Revised Statutes, is
17 amended by amending the definition of "renewable energy" to read
18 as follows:

19 "Renewable energy" means energy generated or produced
20 using the following sources:

21 (1) Wind;



- 1 (2) The sun;
- 2 (3) Falling water;
- 3 (4) Biogas, including landfill and sewage-based digester
- 4 gas;
- 5 (5) Geothermal;
- 6 (6) Ocean water, currents, and waves, including ocean
- 7 thermal energy conversion;
- 8 [~~7~~] ~~Biomass, including biomass crops, agricultural and~~
- 9 ~~animal residues and wastes, and municipal solid waste~~
- 10 ~~and other solid waste;~~
- 11 ~~(8)]~~ (7) Biofuels; and
- 12 [~~9~~] (8) Hydrogen produced from renewable energy sources."

13 SECTION 3. Statutory material to be repealed is bracketed
 14 and stricken. New statutory material is underscored.

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

16

INTRODUCED BY: *Mike Hubbard*
BR



S.B. NO. 2102

Report Title:

Electricity Rates; Climate Warming; Biomass; Greenhouse Emissions; Renewable Energy

Description:

Eliminates biomass from the renewable portfolio standard definition of "renewable energy".

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