

ACT 92

H.B. NO. 1333

A Bill for an Act Relating to Energy.

Be It Enacted by the Legislature of the State of Hawaii:

SECTION 1. The legislature finds that in the 1990s, the federal government began to get involved in the research and development of solar energy and developed grants and tax incentives for homeowners who installed and used solar systems. Since then, manufacturing costs for solar panels have decreased and efficiency has dramatically increased, and the past ten years have seen an increasing number of solar panels being installed in the United States each year. Some appliances, such as solar water heaters, use solar power to reduce reliance upon traditional heating sources, including oil, electricity, and natural gas, to meet state energy goals. In 2008, the legislature passed Act 204, Session Laws of Hawaii 2008, known as the “solar water heater mandate”, for the benefit of consumers, which required that new homes utilize solar water heating except in narrowly limited circumstances, thereby potentially increasing the use of solar panels in the State.

The legislature further finds that solar panels have a life expectancy of up to thirty years, and panels installed in the 1990s will start requiring disposal

in the very near future. After about thirty years, many crystalline silicon solar panels will begin having significant dips in energy production and will need to be disposed of, recycled, or replaced. Heavy metals such as cadmium and lead are found in solar cells, which can harm the natural environment if not recycled or disposed of properly. Solar panels that are disposed of carelessly may end up in large landfills. The legislature also finds that over time some of the rare elements in photovoltaic cells, like gallium and indium, are being depleted from the environment and recovery of these elements would conserve the limited amount available on earth for continued use in solar panels and other products. A 2016 study by the International Renewable Energy Agency estimated that \$15,000,000,000 could be recovered by 2050 from recycling solar modules.

The purpose of this Act is to require the Hawaii natural energy institute, in consultation with the department of health, to conduct a comprehensive study to determine best practices for disposal, recycling, or secondary use of clean energy products in the State.

SECTION 2. (a) The Hawaii natural energy institute, in consultation with the department of health, shall conduct a comprehensive study to determine best practices for disposal, recycling, or secondary use of clean energy products in the State.

(b) The study shall address:

- (1) The amount of aging photovoltaic and solar water heater panels in the State that will need to be disposed of or recycled;
- (2) Other types of clean energy materials expected to be discarded in the State in significant quantities, including glass, frames, wiring, inverters, and batteries;
- (3) The type and chemical composition of those clean energy materials;
- (4) Best practices for collection, disposal, recycling, or reuse of those clean energy materials;
- (5) Whether a fee should be charged for disposal or recycling of those clean energy materials; and
- (6) Any other issues that the Hawaii natural energy institute and department of health consider appropriate for management, recycling, and disposal of those clean energy materials.

(c) The Hawaii natural energy institute shall submit an interim report on the progress of the study, including findings, recommendations, and any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2022. The Hawaii natural energy institute shall submit a final report of the study, including findings, recommendations, and any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2023.

SECTION 3. This Act shall take effect on July 1, 2021.

(Approved June 25, 2021.)