
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 Hawaii's energy
2 sector is undergoing a transition to renewable energy to
3 strengthen the State's economy, environment, and security and to
4 reduce greenhouse gas emissions. The legislature further finds
5 that the cost of living in Hawaii is already among the highest
6 in the nation. To complete this transition successfully, ensure
7 maximum benefits for Hawaii's people and businesses, and ensure
8 consumers are not harmed by unreasonably increasing energy
9 costs, it is important that all relevant entities are aligned to
10 the extent economically feasible.

11 With its limited supply and distribution network, Hawaii
12 has both the lowest total natural gas consumption in the nation
13 and the lowest per capita consumption, and gas only represents
14 approximately two per cent of energy expenditures in Hawaii.
15 Nevertheless, the legislature believes it is important to
16 continue to strive towards achieving the State's renewable
17 energy goals and additional information is needed before the



1 legislature can determine the implications of requiring
2 renewable energy standards for gas utility companies since any
3 higher costs would be borne by its customers and it is unclear
4 whether renewable gas is available in sufficiently reliable
5 quantities at reasonable costs.

6 The legislature also finds that it is important for energy
7 security to sustain the economic stability and financial health
8 of gas utility companies to maintain energy diversity and
9 resiliency to be prepared for times of global economic
10 volatility and natural disasters.

11 The purpose of this Act is to:

12 (1) Require the Hawaii state energy office to conduct a
13 study regarding the availability, feasibility, and
14 costs of the use of renewable gas in Hawaii by gas
15 utility companies; and

16 (2) Appropriate funds for the study.

17 SECTION 2. **Definitions.** For the purposes of this Act:

18 "Biogas" means gas that is generated from organic waste or
19 other organic materials through anaerobic digestion,
20 gasification, pyrolysis, or other technology that converts
21 organic waste to gas.



1 "Gas utility company" means a public utility as defined
2 under section 269-1, Hawaii Revised Statutes, for the
3 production, conveyance, transmission, delivery, or furnishing of
4 gas, light, power, heat, or cold produced from gas.

5 "Renewable gas" means any of the following products
6 processed or upgraded to be interchangeable with conventional
7 natural gas for the purpose of meeting pipeline quality
8 standards, end use requirements, or transportation fuel grade
9 requirements:

- 10 (1) Biogas;
- 11 (2) Hydrogen gas derived from renewable energy sources; or
- 12 (3) Carbon dioxide from waste.

13 SECTION 3. (a) The Hawaii state energy office shall
14 contract with the Hawaii natural energy institute of the
15 University of Hawaii to conduct an independent renewable gas
16 study to be reviewed by a panel of experts with the required
17 expertise, including experts from the American Gas Association
18 and Gas Technology Institute. The Hawaii natural energy
19 institute of the University of Hawaii shall work with gas
20 utility companies to confirm and verify all data, assumptions,



1 projections and other information and analysis used in
2 conducting the studies required by this Act.

3 (b) These studies shall include but not be limited to
4 findings regarding:

5 (1) The potential quantity and cost of renewable gas that
6 could be produced in the State and delivered for use,
7 and if necessary, that could be produced out of the
8 State and delivered to the State for use:

9 (A) By residential, commercial, and industrial
10 consumers; and

11 (B) As a transportation fuel;

12 (2) The identification and inventory of feedstock and
13 acreage for renewable gas production currently
14 available in the State;

15 (3) Commercial conversion technologies for renewable gas
16 production and economic scalability of capacity;

17 (4) Identify incentives that are currently available to
18 develop renewable gas resources and identify
19 incentives that are made available to develop
20 renewable gas resources in other jurisdictions;



- 1 (5) The potential for the use of renewable gas in the
2 State to measurably reduce greenhouse gas emissions;
- 3 (6) The potential for renewable gas in the State to
4 measurably improve air quality;
- 5 (7) The technical, market, policy, and regulatory barriers
6 to developing and utilizing renewable gas in the
7 State, produced in the State and delivered for use,
8 and produced out of the State and delivered to the
9 State for use, and possible solutions to overcoming
10 such barriers;
- 11 (8) Identifying available renewable alternatives, such as
12 the procurement and importation of renewable gas;
- 13 (9) Whether renewable gas projects should have access to
14 the same incentives other renewable energy projects
15 are provided, such as gas utility company incentives,
16 investment and production tax credits, land and water
17 policy incentives to facilitate and encourage the use
18 of public and private lands and other resources for
19 renewable gas production by farmers and landowners,
20 and other incentives;



- 1 (10) The ability to use renewable gas at reasonable costs
- 2 and shall assess factors such as:
- 3 (A) The impact on consumer rates;
- 4 (B) Gas utility company system reliability and
- 5 stability;
- 6 (C) Availability and reliability of a renewable gas
- 7 supply;
- 8 (D) Costs and availability of appropriate renewable
- 9 gas resources and technologies, including the
- 10 impact of renewable gas requirements on the gas
- 11 prices offered by renewable energy suppliers or
- 12 developers;
- 13 (E) Permitting requirements and necessary approvals
- 14 for renewable gas projects;
- 15 (F) Effects on the economy;
- 16 (G) Balance of trade, culture, community,
- 17 environment, land, and water;
- 18 (H) Climate change policies;
- 19 (I) Demographics;
- 20 (J) Gas price volatility;



- 1 (K) Effects on existing gas production, supply chain,
2 and on gas utility company suppliers;
- 3 (L) Required regulated and unregulated gas utility
4 company infrastructure improvements and
5 additions;
- 6 (M) Gas quality and safety;
- 7 (N) Risks associated with the use of renewable gas;
- 8 (O) The availability of land, water, labor, and other
9 resources needed for the development of renewable
10 gas resources; and
- 11 (P) Other factors deemed appropriate by the Hawaii
12 state energy office; and
- 13 (11) A renewable gas policy framework and regulatory
14 mechanism to ensure timely recovery of reasonable
15 renewable gas costs for gas utility companies and to
16 encourage investment in renewable gas infrastructure
17 by gas utility companies.
- 18 (c) The Hawaii state energy office shall submit a report
19 of its findings and recommendations, including any proposed
20 legislation, to the legislature no later than twenty days prior
21 to the convening of the regular session of 2022.



1 SECTION 4. There is appropriated out of the energy
2 security special fund the sum of \$250,000 or so much thereof as
3 may be necessary for fiscal year 2020-2021 for to conduct the
4 study required by this Act.

5 The sum appropriated shall be expended by the Hawaii state
6 energy office for the purposes of this Act.

7 SECTION 5. This Act shall take effect on July 1, 2020.



Report Title:

Renewable Energy; Gas; Renewable Gas Study; Appropriation

Description:

Requires the Hawaii State Energy Office to conduct a study regarding renewable gas to determine economic and technical feasibility of the use of renewable gas by gas utility companies. Appropriates funds for the study. (SD1)

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