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# 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 one hundred per cent  
3 renewable energy that is strengthening the State's economy,  
4 environment, and security. To complete this transition  
5 successfully, and to ensure maximum benefits for Hawaii's  
6 residents and businesses, it is important that all relevant  
7 entities are aligned in the goal of rapid decarbonization to  
8 avoid the worst impacts of climate change. The legislature is  
9 concerned that requiring electric utility companies, but not gas  
10 utility companies, to increase their reliance on renewable  
11 energy creates an unfair playing field that may unintentionally  
12 harm consumers by promoting suboptimal long-lived investments in  
13 fossil fuels through gas-fired distributed electrical  
14 generation. These effects may also have near- and long-term  
15 impacts on the viability of the State's electric utility  
16 companies, and near- and long-term impacts on the viability of  
17 the State's gas utility companies.



1           The legislature further finds that, globally, natural gas,  
2 also known as "fossil gas", is the fastest-growing source of  
3 climate change emissions, according to a 2019 study published in  
4 Environmental Research Letters, a peer-reviewed open-access  
5 scientific journal. Although gas only represents approximately  
6 two per cent of energy expenditures in Hawaii, the legislature  
7 believes it is important to continue to strive toward achieving  
8 the State's renewable energy and climate mitigation goals by  
9 gathering additional information regarding costs, reliable  
10 quantities, and impacts—including economic and environmental  
11 costs associated with continuing to rely on fossil gas—to assist  
12 the legislature in setting renewable energy standards for gas  
13 utility companies.

14           The purpose of this Act is to:

- 15           (1) Require the public utilities commission to conduct a  
16 study regarding the availability, feasibility, and  
17 costs of the use of renewable gas in Hawaii by gas  
18 utility companies; and
- 19           (2) Appropriate funds for the study.

20           SECTION 2. (a) The public utilities commission shall  
21 contract with the Hawaii natural energy institute of the



1 University of Hawaii to conduct an independent renewable gas  
2 study to be reviewed by a panel of experts in the field of gas  
3 and energy, including representatives from the American Gas  
4 Association and Gas Technology Institute. The Hawaii natural  
5 energy institute of the University of Hawaii shall work with gas  
6 utility companies to confirm and verify all data, assumptions,  
7 projections and other information and analysis used in  
8 conducting the study required by this section.

9 (b) The study shall include but not be limited to:

10 (1) The potential quantity and cost of renewable gas that  
11 could be produced in the State and delivered for use,  
12 and, if necessary, could be produced out of the State  
13 and delivered to the State for use:

14 (A) By residential, commercial, and industrial  
15 consumers; and

16 (B) As a transportation fuel;

17 (2) The identification and inventory of feedstock and  
18 acreage for renewable gas production currently  
19 available in the State;



- 1 (3) The identification of commercial conversion  
2 technologies for renewable gas production and economic  
3 scalability of capacity;
- 4 (4) The identification of incentives that are currently  
5 available to develop renewable gas resources and the  
6 identification of incentives available to develop  
7 renewable gas resources in other jurisdictions;
- 8 (5) The potential for the use of renewable gas in the  
9 State to measurably reduce greenhouse gas emissions;
- 10 (6) The potential for renewable gas in the State to  
11 measurably improve air quality;
- 12 (7) The technical, market, policy, and regulatory barriers  
13 to developing and utilizing renewable gas in the  
14 State, produced in the State and delivered for use,  
15 and produced out of the State and delivered to the  
16 State for use, and possible solutions to overcoming  
17 such barriers;
- 18 (8) The identification of available renewable  
19 alternatives, such as the procurement and importation  
20 of renewable gas;



- 1           (9) Whether renewable gas projects should have access to  
2           the same incentives other renewable energy projects  
3           are provided, such as gas utility company incentives,  
4           investment and production tax credits, land and water  
5           policy incentives to facilitate and encourage the use  
6           of public and private lands and other resources for  
7           renewable gas production by farmers and landowners,  
8           and other incentives;
- 9           (10) The ability to use renewable gas at reasonable costs,  
10          including an assessment of factors such as:
- 11           (A) The impact on consumer rates;
- 12           (B) Gas utility company system reliability and  
13           stability;
- 14           (C) Availability and reliability of renewable gas  
15           supply;
- 16           (D) Costs and availability of appropriate renewable  
17           gas resources and technologies, including the  
18           impact of renewable gas requirements on the gas  
19           prices offered by renewable energy suppliers or  
20           developers;



- 1 (E) Permitting requirements and necessary approvals  
2 for renewable gas projects;
- 3 (F) Effects on the economy;
- 4 (G) Balance of trade, culture, community,  
5 environment, land, and water;
- 6 (H) Climate change policies;
- 7 (I) Demographics;
- 8 (J) Gas price volatility;
- 9 (K) Effects on existing gas production, supply chain,  
10 and gas utility company suppliers;
- 11 (L) Required gas utility company infrastructure  
12 improvements and additions;
- 13 (M) Gas quality and safety;
- 14 (N) Risks associated with the use of renewable gas;
- 15 (O) The availability of land, water, labor, and other  
16 resources needed for the development of renewable  
17 gas resources;
- 18 (P) Lifecycle greenhouse gas emissions for existing  
19 and renewable gas supply; and
- 20 (Q) Other factors deemed appropriate by the public  
21 utilities commission; and



1 (11) A renewable gas policy framework and regulatory  
2 mechanism to ensure timely recovery of renewable gas  
3 costs for gas utility companies and encourage  
4 investment in renewable gas infrastructure by gas  
5 utility companies.

6 (c) The public utilities commission shall submit a report  
7 of its findings and recommendations resulting from the study,  
8 including any proposed legislation, to the legislature no later  
9 than twenty days prior to the convening of the regular session  
10 of 2022.

11 (d) For the purposes of this section:

12 "Biogas" means gas that is generated from organic waste or  
13 other organic materials through anaerobic digestion,  
14 gasification, pyrolysis, or other technology that converts  
15 organic waste to gas.

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

20 "Renewable gas" means any of the following products  
21 processed or upgraded to be interchangeable with conventional



1 natural gas for the purpose of meeting pipeline quality  
2 standards, end use requirements, or transportation fuel grade  
3 requirements:

- 4 (1) Biogas;
- 5 (2) Hydrogen gas derived from renewable energy sources; or
- 6 (3) Carbon dioxide from waste.

7 SECTION 3. There is appropriated out of the public  
8 utilities commission special fund the sum of \$ or so  
9 much thereof as may be necessary for fiscal year 2020-2021 to  
10 conduct the study required by section 2 of this Act.

11 The sum appropriated shall be expended by the public  
12 utilities commission for the purposes of this Act.

13 SECTION 4. This Act shall take effect on July 1, 2050.





**Report Title:**

Renewable Energy; Gas; Public Utilities Commission; Hawaii  
Natural Energy Institute; Study; Appropriation

**Description:**

Requires the public utilities commission (PUC) to contract with  
the Hawaii natural energy institute to conduct an independent  
renewable gas study. Appropriates funds to PUC to contract with  
the University of Hawaii to perform the study. Effective  
7/1/2050. (HD2)

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not legislation or evidence of legislative intent.*

