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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 Act 97, Session Laws  
2 of Hawaii 2015, amended section 269-92, Hawaii Revised Statutes,  
3 to establish a one hundred per cent renewable portfolio standard  
4 by December 31, 2045, with the intent to transition the State  
5 away from imported fuels and toward renewable local resources  
6 that provide a secure source of affordable energy. Since that  
7 time, the need to reduce carbon emissions globally to avoid the  
8 worst impacts of climate change has become increasingly urgent.  
9 In addition, studies indicate that accelerating the adoption of  
10 renewable energy will cost less than the course laid out by the  
11 current renewable portfolio standard interim benchmarks.  
12 Speeding up the deployment of renewable energy will also create  
13 thousands of jobs and will position Hawaii at the forefront of  
14 energy innovation and investment.

15           Currently, the calculation of the renewable portfolio  
16 standard, based on the definition of renewable portfolio  
17 standard enacted in 2001 and amended in 2006, is the percentage



1 of electrical energy sales that is represented by renewable  
2 electrical energy. The legislature finds that the calculation  
3 of the renewable portfolio standard based on electrical energy  
4 sales (renewable electrical energy sales divided by total  
5 electrical sales), rather than on electrical energy generation  
6 (renewable electrical energy generation divided by total  
7 electrical energy generation), overestimates the amount of  
8 renewable energy serving Hawaii's electric utility customers.  
9 There are two fundamental issues that lead to the current  
10 discrepancy:

11 (1) The current renewable portfolio standard calculation  
12 inflates the reported percentage of renewable energy  
13 by excluding customer-sited, grid-connected energy  
14 generation in the denominator, which becomes material  
15 with higher levels of customer-sited, grid-connected  
16 renewable energy generation and higher renewable  
17 portfolio standard percentages; and

18 (2) The current electrical energy sales number does not  
19 include energy losses that occur between the points of  
20 electrical energy generation and the customer meter,  
21 where sales are measured.



1 Failure to address these issues creates an incorrect measure of  
2 the State's progress toward its statutory goal of one hundred  
3 per cent renewable energy.

4 Furthermore, the legislature finds that Hawaii's energy  
5 sector is undergoing a transition to renewable energy that is  
6 strengthening the State's economy, helping to preserve the  
7 environment, and increasing the State's security. To complete  
8 this transition successfully, it is also important that all  
9 relevant entities are aligned. The legislature is concerned  
10 that requiring electric utilities but not gas utilities to  
11 increase their reliance on renewable energy creates an unfair  
12 playing field that may unintentionally harm consumers by  
13 promoting suboptimal long-lived investments in fossil fuels  
14 through gas-fired distributed electrical generation. These  
15 effects may also have short-term and long-term impacts on the  
16 viability of the State's electric and gas utilities.

17 The legislature finds that the simplest, fairest, and most  
18 effective solution to this concern is to also implement  
19 renewable portfolio standard targets for gas utilities that are  
20 similar to those established for electric utilities. This Act  
21 requires all gas sold for grid-connected electrical energy



1 generation by regulated gas utility operations in the State to  
2 become more renewable over time.

3 The purpose of this Act is to:

- 4 (1) Amend the renewable portfolio standard interim goals  
5 for 2030 and 2040 to accelerate the adoption of  
6 renewable energy;
- 7 (2) Amend the definition of renewable portfolio standard  
8 to more accurately reflect the percentage of renewable  
9 energy used in the State; and
- 10 (3) Establish gas utility company renewable portfolio  
11 standards for electricity generation, ensuring that  
12 the State's market for gas embraces and supports the  
13 transition away from fossil fuels and toward renewable  
14 energy.

15 SECTION 2. Chapter 269, Hawaii Revised Statutes, is  
16 amended by adding a new subpart to part V to be appropriately  
17 designated and to read as follows:

18 " . Renewable Portfolio Standards for Gas Utility Companies

19 §269-A Definitions. For the purposes of this subpart:



1 "Gas utility company" means a public utility, as defined in  
2 section 269-1, for the production, conveyance, transmission,  
3 delivery, or furnishing of gas.

4 "Renewable gas" means gas generated or produced using:

- 5 (1) Biogas, including landfill and sewage-based digester  
6 gas;
- 7 (2) Biomass, biomass crops, agricultural or animal  
8 residues and wastes, municipal solid waste, or other  
9 solid waste;
- 10 (3) Biofuels; or
- 11 (4) Hydrogen produced from renewable energy sources.

12 "Renewable portfolio standard" means total energy in therms  
13 from renewable gas sold divided by total heat energy in therms  
14 from gas sold, expressed as a percentage. For the purposes of  
15 this definition, the terms "renewable gas sold" and "gas sold"  
16 are limited to gas sold under regulated gas utility company  
17 operations in the State.

18 **§269-B Renewable portfolio standards for gas utility**  
19 **companies.** (a) Each gas utility company that sells gas in the  
20 State shall establish a renewable portfolio standard of:



1           (1)           per cent of its net gas sales by December 31,  
2                           2024;

3           (2)           per cent of its net gas sales by December 31,  
4                           2029;

5           (3)           per cent of its net gas sales by December 31,  
6                           2034;

7           (4)           per cent of its net gas sales by December 31,  
8                           2039; and

9           (5)   One hundred per cent of its net gas sales by  
10                          December 31, 2045.

11           (b)   The public utilities commission may establish  
12 standards for each gas utility company that prescribe what  
13 portion of the renewable portfolio standard shall be met by  
14 specific types of renewable gas resources; provided that where  
15 gas is composed of commingled fossil and renewable gases, the  
16 renewable gas component of the gas shall be considered to be in  
17 direct proportion to the percentage of the total heat input  
18 value represented by the heat input value of the renewable gas.

19           (c)   If the public utilities commission determines that a  
20 gas utility company failed to meet any portion of the renewable  
21 portfolio standard, after a hearing in accordance with chapter



1 91, the gas utility company shall be subject to penalties  
2 established by the public utilities commission; provided that if  
3 the commission determines that the gas utility company is unable  
4 to meet the renewable portfolio standards because of reasons  
5 beyond the gas company's reasonable control, as set forth in  
6 subsection (d), the commission, in its discretion, may waive in  
7 whole or in part any otherwise applicable penalties.

8 (d) Events or circumstances that are beyond a gas utility  
9 company's reasonable control may include, to the extent the  
10 event or circumstance could not be reasonably foreseen and  
11 ameliorated:

- 12 (1) Weather-related damage;
- 13 (2) Natural disasters;
- 14 (3) Mechanical or resource failure;
- 15 (4) Failure of renewable gas producers or suppliers to  
16 meet contractual obligations to the gas utility  
17 company;
- 18 (5) Labor strikes or lockouts;
- 19 (6) Actions of governmental authorities that adversely  
20 affect the procurement of renewable gas under contract  
21 to a gas utility company;



- 1           (7) Inability to acquire sufficient renewable gas because
- 2                   of lapsing of tax credits related to renewable gas
- 3                   development;
- 4           (8) Inability to obtain permits or land use approvals for
- 5                   renewable gas projects;
- 6           (9) Inability to acquire sufficient cost-effective
- 7                   renewable gas;
- 8           (10) Inability to acquire sufficient renewable gas to meet
- 9                   the renewable portfolio standard goals by 2045 in a
- 10                  manner that is beneficial to Hawaii's economy in
- 11                  relation to comparable resources;
- 12           (11) Substantial limitations, restrictions, or prohibitions
- 13                  on utility renewable gas projects; or
- 14           (12) Other events or circumstances of a similar nature that
- 15                  could not be reasonably foreseen and ameliorated.
- 16           (e) Each gas utility company shall:
- 17                  (1) By July 1, 2020, submit to the public utilities
- 18                          commission for review and approval a procedure that
- 19                          establishes how the gas utility company will measure
- 20                          and report its renewable portfolio standard status to
- 21                          the public utilities commission; and





1           (2) Report the progress and the steps taken toward the  
2                   renewable portfolio standard goals according to the  
3                   schedule established in subsection (a).

4           **§269-C Achieving gas portfolio standard.** (a) A gas  
5 utility company and its affiliates may aggregate their renewable  
6 portfolios to achieve the renewable portfolio standard.

7           (b) If a gas utility company and its affiliates aggregate  
8 their renewable portfolios to achieve the renewable portfolio  
9 standard, the public utilities commission may distribute,  
10 apportion, or allocate the costs and expenses of all or any  
11 portion of the respective renewable portfolios among the gas  
12 utility company, the gas utility company's affiliates, and the  
13 affiliates' respective ratepayers, as is reasonable under the  
14 circumstances.

15           (c) A gas utility company may recover, through an  
16 automatic rate adjustment clause, any revenue requirement  
17 resulting from the distribution, apportionment, or allocation of  
18 the renewable portfolio's costs and expenses.

19           (d) To provide for timely recovery of the revenue  
20 requirement under subsection (c), the public utilities  
21 commission may establish a separate automatic rate adjustment



1 clause or approve the use of a previously approved automatic  
2 rate adjustment clause without a rate case filing. The use of  
3 an automatic rate adjustment clause to recover the revenue  
4 requirement may continue until the revenue requirement is  
5 incorporated into the gas utility company's rates by its rate  
6 case.

7       **§269-D Waivers, extensions, and incentives for gas utility**  
8 **companies.** (a) Any gas utility company failing to meet the  
9 renewable portfolio standard shall provide a written explanation  
10 to the public utilities commission within ninety days following  
11 the dates established in section 269-A(a).

12       (b) The public utilities commission, after allowing an  
13 appropriate period of public comment, shall grant or deny a  
14 request for a waiver from the renewable portfolio standard or  
15 for an extension to meet the prescribed standard.

16       (c) The public utilities commission may provide incentives  
17 to encourage gas utility companies to exceed their renewable  
18 portfolio standards, meet their renewable portfolio standards  
19 before the prescribed dates, or both."

20       SECTION 3. Chapter 269, part V, Hawaii Revised Statutes,  
21 is amended by designating sections 269-91 to 269-96 as subpart



1 A, entitled "Renewable Portfolio Standards for Electric Utility  
2 Companies".

3 SECTION 4. Section 269-91, Hawaii Revised Statutes, is  
4 amended to read as follows:

5 "§269-91 [{}Definitions.{}] For the purposes of this  
6 [{}part}:-] subpart:

7 "Biofuels" means liquid or gaseous fuels produced from  
8 organic sources such as biomass crops, agricultural residues and  
9 oil crops, such as palm oil, canola oil, soybean oil, waste  
10 cooking oil, grease, and food wastes, animal residues and  
11 wastes, and sewage and landfill wastes.

12 "Cost-effective" means the ability to produce or purchase  
13 electric energy or firm capacity, or both, from renewable energy  
14 resources at or below avoided costs or as the public utilities  
15 commission otherwise determines to be just and reasonable  
16 consistent with the methodology set by the public utilities  
17 commission in accordance with section 269-27.2.

18 "Electric utility company" means a public utility as  
19 defined under section 269-1, for the production, conveyance,  
20 transmission, delivery, or furnishing of power.



1       "Grid-connected" means interconnected to the Hawaii  
2 electric system under an existing standard or rule approved by  
3 the public utilities commission. As used in this definition,  
4 "interconnection" has the same meaning as defined in section  
5 269-141.

6       "Hawaii electric system" has the same meaning as defined in  
7 section 269-141.

8       "Renewable electrical energy" means:

- 9       (1) Electrical energy generated using renewable energy as  
10       the source, and beginning January 1, 2015, includes  
11       customer-sited, grid-connected renewable energy  
12       generation; and
- 13       (2) Electrical energy savings brought about by:
- 14       (A) The use of renewable displacement or off-set  
15       technologies, including solar water heating, sea-  
16       water air-conditioning district cooling systems,  
17       solar air-conditioning, and customer-sited, grid-  
18       connected renewable energy systems; provided  
19       that, beginning January 1, 2015, electrical  
20       energy savings shall not include customer-sited,  
21       grid-connected renewable-energy systems; or



1           (B) The use of energy efficiency technologies,  
2                   including heat pump water heating, ice storage,  
3                   ratepayer-funded energy efficiency programs, and  
4                   use of rejected heat from co-generation and  
5                   combined heat and power systems, excluding  
6                   fossil-fueled qualifying facilities that sell  
7                   electricity to electric utility companies and  
8                   central station power projects.

9           "Renewable energy" means energy generated or produced using  
10 the following sources:

- 11           (1) Wind;
- 12           (2) The sun;
- 13           (3) Falling water;
- 14           (4) Biogas, including landfill and sewage-based digester  
15                   gas;
- 16           (5) Geothermal;
- 17           (6) Ocean water, currents, and waves, including ocean  
18                   thermal energy conversion;
- 19           (7) Biomass, including biomass crops, agricultural and  
20                   animal residues and wastes, and municipal solid waste  
21                   and other solid waste;



1 (8) Biofuels; ~~and~~ or

2 (9) Hydrogen produced from renewable energy sources.

3 "Renewable portfolio standard" means ~~[the percentage of~~  
4 ~~electrical energy sales that is represented by renewable~~  
5 ~~electrical energy.]~~ total renewable electrical energy generated  
6 from grid-connected renewable energy systems divided by total  
7 electrical energy generated from grid-connected energy systems,  
8 expressed as a percentage, but excluding electrical generation  
9 used exclusively for emergency services in the case that the  
10 normal supply from the Hawaii electric system fails."

11 SECTION 5. Section 269-92, Hawaii Revised Statutes, is  
12 amended to read as follows:

13 "§269-92 Renewable portfolio standards ~~[-]~~ for electric  
14 utility companies. (a) Each electric utility company that  
15 sells electricity for consumption in the State shall establish a  
16 renewable portfolio standard of:

17 (1) Ten per cent ~~[of its net electricity sales]~~ by  
18 December 31, 2010;

19 (2) Fifteen per cent ~~[of its net electricity sales]~~ by  
20 December 31, 2015;



- 1           (3) Thirty per cent [~~of its net electricity sales~~] by  
2           December 31, 2020;
- 3           (4) [~~Forty~~] Sixty-five per cent [~~of its net electricity~~  
4           sales] by December 31, 2030;
- 5           (5) [~~Seventy~~] Eighty-five per cent [~~of its net electricity~~  
6           sales] by December 31, 2040; and
- 7           (6) One hundred per cent [~~of its net electricity sales~~] by  
8           December 31, 2045.

9           (b) All electric grid-connected energy systems shall be  
10 one hundred per cent renewable energy systems by December 31,  
11 2045; provided that generation that is used exclusively for  
12 emergency service in the event that the normal supply from the  
13 Hawaii electric system fails shall be excluded from the  
14 calculation as set forth in the definition of renewable  
15 portfolio standard in section 269-91.

16           [~~(b)~~] (c) The public utilities commission may establish  
17 standards for each electric utility company that prescribe  
18 [~~what~~] the portion of the renewable portfolio standards that  
19 shall be met by specific types of renewable energy resources;  
20 provided that:



- 1           (1) Prior to January 1, 2015, at least fifty per cent of  
2           the renewable portfolio standards shall be met by  
3           electrical energy generated using renewable energy as  
4           the source, and after December 31, 2014, the entire  
5           renewable portfolio standard shall be met by  
6           electrical generation from renewable energy sources;
- 7           (2) Beginning January 1, 2015, electrical energy savings  
8           shall not count toward renewable energy portfolio  
9           standards;
- 10          (3) Where electrical energy is generated or displaced by a  
11          combination of renewable and nonrenewable means, the  
12          proportion attributable to the renewable means shall  
13          be credited as renewable energy; and
- 14          (4) Where fossil and renewable fuels are co-fired in the  
15          same generating unit, the unit shall be considered to  
16          generate renewable electrical energy (electricity) in  
17          direct proportion to the percentage of the total heat  
18          input value represented by the heat input value of the  
19          renewable fuels.
- 20          [~~(e)~~] (d) If the public utilities commission determines  
21          that an electric utility company failed to meet the renewable





1 portfolio standard, after a hearing in accordance with chapter  
2 91, the utility shall be subject to penalties to be established  
3 by the public utilities commission; provided that if the  
4 commission determines that the electric utility company is  
5 unable to meet the renewable portfolio standards [~~due to~~  
6 because of reasons beyond the reasonable control of an electric  
7 utility, as set forth in subsection (d), the commission, in its  
8 discretion, may waive in whole or in part any otherwise  
9 applicable penalties.

10 [~~(d)~~] (e) Events or circumstances that are [~~outside of~~  
11 beyond an electric utility company's reasonable control may  
12 include, to the extent the event or circumstance could not be  
13 reasonably foreseen and ameliorated:

- 14 (1) Weather-related damage;  
15 (2) Natural disasters;  
16 (3) Mechanical or resource failure;  
17 (4) Failure of renewable electrical energy producers to  
18 meet contractual obligations to the electric utility  
19 company;  
20 (5) Labor strikes or lockouts;



- 1           (6) Actions of governmental authorities that adversely  
2           affect the generation, transmission, or distribution  
3           of renewable electrical energy under contract to an  
4           electric utility company;
- 5           (7) Inability to acquire sufficient renewable electrical  
6           energy due to lapsing of tax credits related to  
7           renewable energy development;
- 8           (8) Inability to obtain permits or land use approvals for  
9           renewable electrical energy projects;
- 10          (9) Inability to acquire sufficient cost-effective  
11          renewable electrical energy;
- 12          (10) Inability to acquire sufficient renewable electrical  
13          energy to meet the renewable portfolio standard goals  
14          beyond 2030 in a manner that is beneficial to Hawaii's  
15          economy in relation to comparable fossil fuel  
16          resources;
- 17          (11) Substantial limitations, restrictions, or prohibitions  
18          on utility renewable electrical energy projects; and
- 19          (12) Other events and circumstances of a similar nature[-]  
20          that could not be reasonably foreseen and  
21          ameliorated."



1 SECTION 6. Section 269-93, Hawaii Revised Statutes, is  
2 amended by amending its title to read as follows:

3 "§269-93 Achieving electric portfolio standard."

4 SECTION 7. Section 269-94, Hawaii Revised Statutes, is  
5 amended to read as follows:

6 "[+]§269-94 Waivers, extensions, and incentives[-.] for  
7 electric utility companies. Any electric utility company not  
8 meeting the renewable portfolio standard shall report to the  
9 public utilities commission within ninety days following the  
10 goal dates established in section [+]269-92[+], and provide an  
11 explanation for not meeting the renewable portfolio standard.  
12 The public utilities commission shall have the option to either  
13 grant a waiver from the renewable portfolio standard or an  
14 extension for meeting the prescribed standard.

15 The public utilities commission may provide incentives to  
16 encourage electric utility companies to exceed their renewable  
17 portfolio standards or to meet their renewable portfolio  
18 standards ahead of time, or both."

19 SECTION 8. Section 269-95, Hawaii Revised Statutes, is  
20 amended to read as follows:



1           "§269-95 Renewable portfolio standards study[-] for  
2 electric utility companies. The public utilities commission  
3 shall:

- 4           (1) By December 31, 2007, develop and implement a utility  
5           ratemaking structure, which may include performance-  
6           based ratemaking, to provide incentives that encourage  
7           Hawaii's electric utility companies to use cost-  
8           effective renewable energy resources found in Hawaii  
9           to meet the renewable portfolio standards established  
10          in section 269-92, while allowing for deviation from  
11          the standards in the event that the standards cannot  
12          be met in a cost-effective manner or as a result of  
13          events or circumstances, such as described in section  
14          [~~269-92(d),~~] 269-92(e), beyond the control of the  
15          electric utility company that could not have been  
16          reasonably anticipated or ameliorated;
- 17          (2) Gather, review, and analyze empirical data to:
- 18                (A) Determine the extent to which any proposed  
19                utility ratemaking structure would impact  
20                electric utility companies' profit margins; and



1 (B) Ensure that the electric utility companies'  
2 opportunity to earn a fair rate of return is not  
3 diminished;

4 (3) Use funds from the public utilities special fund to  
5 contract with the Hawaii natural energy institute of  
6 the University of Hawaii to conduct independent  
7 studies to be reviewed by a panel of experts from  
8 entities such as the United States Department of  
9 Energy, National Renewable Energy Laboratory, Electric  
10 Power Research Institute, Hawaii electric utility  
11 companies, environmental groups, and other similar  
12 institutions with the required expertise. These  
13 studies shall include findings and recommendations  
14 regarding:

15 (A) The capability of Hawaii's electric utility  
16 companies to achieve renewable portfolio  
17 standards in a cost-effective manner and shall  
18 assess factors such as:

- 19 (i) The impact on consumer rates;  
20 (ii) Utility system reliability and stability;



- 1 (iii) Costs and availability of appropriate  
2 renewable energy resources and technologies,  
3 including the impact of renewable portfolio  
4 standards, if any, on the energy prices  
5 offered by renewable energy developers;
- 6 (iv) Permitting approvals;
- 7 (v) Effects on the economy;
- 8 (vi) Balance of trade, culture, community,  
9 environment, land, and water;
- 10 (vii) Climate change policies;
- 11 (viii) Demographics;
- 12 (ix) Cost of fossil fuel volatility; and
- 13 (x) Other factors deemed appropriate by the  
14 commission; and
- 15 (B) Projected renewable portfolio standards to be set  
16 five and ten years beyond the then current  
17 standards;
- 18 (4) Evaluate the renewable portfolio standards every five  
19 years, beginning in 2013, and may revise the standards  
20 based on the best information available at the time to



1 determine if the standards established by section  
2 269-92 remain effective and achievable; and  
3 (5) Report its findings and revisions to the renewable  
4 portfolio standards, based on its own studies and  
5 other information, to the legislature no later than  
6 twenty days before the convening of the regular  
7 session of 2014, and every five years thereafter."

8 SECTION 9. Section 269-96, Hawaii Revised Statutes, is  
9 amended by amending its title to read as follows:

10 "~~§269-96~~ **Energy-efficiency portfolio standards**  
11 **for electric utility companies.**"

12 SECTION 10. In codifying the new subpart added by section  
13 2 of this Act, the revisor of statutes shall substitute  
14 appropriate section numbers for the letters used in designating  
15 the new sections in this Act.

16 SECTION 11. This Act does not affect rights and duties  
17 that matured, penalties that were incurred, and proceedings that  
18 were begun before its effective date.

19 SECTION 12. Statutory material to be repealed is bracketed  
20 and stricken. New statutory material is underscored.



# H.B. NO. 550

1 SECTION 13. This Act shall take effect upon its approval.

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INTRODUCED BY: Wade E. Lower

[Signature]

Chen Todd

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Bill Kofashi

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JAN 18 2019





# H.B. NO. 550

**Report Title:**

Energy; Utilities; Gas; Electric; Renewable Portfolio Standard

**Description:**

Amends the definition of "renewable portfolio standard" to more accurately reflect the percentage of renewable energy use in the State. Establishes renewable portfolio standards and targets for gas utility companies that are similar to those set for electric utility companies.

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

