
A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

PART I

1
2 SECTION 1. The legislature finds that as a result of
3 pursuing its goal to reach one hundred per cent renewable energy
4 by 2045, Hawaii now leads other states in nearly every category
5 of renewable electricity. Currently, thirty-three per cent of
6 electricity in the State is generated from rooftop solar, and
7 there are sixty utility-scale renewable energy projects feeding
8 into the State's power grids. Despite great progress, the State
9 continues to depend heavily upon imported petroleum for its
10 energy needs, and it still falls far short of its ambitious
11 renewable energy goals.

12 The legislature further finds that the State must continue
13 to support established renewable energy sources and those
14 emerging from new technological innovations to meet its
15 expansive renewable energy goals. Currently, the State's
16 definition of "renewable energy" is too narrow to account for
17 some technological innovations that produce renewable energy



1 resources. Broadening the definition of "renewable energy" to
2 include other self-replenishing non-fossil fuel resources could
3 significantly advance the State's clean energy goals and produce
4 considerable environmental and economic benefits for the State.

5 Accordingly, the purpose of this Act is to:

- 6 (1) Amend the definition of "renewable energy" as used in
7 the public utilities commission law to include
8 additional self-replenishing non-fossil fuel, non-
9 nuclear resources; and
- 10 (2) Amend the renewable energy technologies income tax
11 credit.

12 **PART II**

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

16 "Renewable energy" means energy generated or produced
17 using ~~[the following sources]~~:

- 18 (1) Wind;
- 19 (2) The sun;
- 20 (3) Falling water;



- 1 (4) Biogas, including landfill and sewage-based digester
- 2 gas;
- 3 (5) Geothermal;
- 4 (6) Ocean water, currents, and waves, including ocean
- 5 thermal energy conversion;
- 6 (7) Biomass, including biomass crops, agricultural and
- 7 animal residues and wastes, and municipal solid waste
- 8 and other solid waste[~~r~~], but not including mono-
- 9 cultured wood crops;
- 10 (8) Biofuels; [~~and~~]
- 11 (9) Hydrogen produced from renewable energy sources[~~-~~];
- 12 and
- 13 (10) Other self-replenishing non-fossil fuel, non-nuclear
- 14 resources."

PART III

16 SECTION 3. Section 23-92, Hawaii Revised Statutes, is
17 amended by amending subsection (c) to read as follows:

18 "(c) This section shall apply to the following:

- 19 (1) Sections 235-12.5 and 241-4.6--Credit for renewable
- 20 energy [~~technology~~] technologies and commercial
- 21 seawater air conditioning system installed and placed



1 in service in the State. For the purpose of section
2 23-91(b) (5), this credit shall be deemed to have been
3 enacted for an economic benefit; and

4 (2) Section 235-17--Credit for qualified production costs
5 incurred for a qualified motion picture, digital
6 media, or film production."

7 SECTION 4. Section 235-12.5, Hawaii Revised Statutes, is
8 amended to read as follows:

9 "§235-12.5 Renewable energy technologies[+] and commercial
10 seawater air conditioning system; income tax credit. (a) When
11 the requirements of subsection (d) are met, each individual or
12 corporate taxpayer that files an individual or corporate net
13 income tax return for a taxable year may claim a tax credit
14 under this section against the Hawaii state individual or
15 corporate net income tax. [~~The tax credit may be claimed for~~
16 ~~every eligible renewable energy technology system that is~~
17 ~~installed and placed in service in the State by a taxpayer~~
18 ~~during the taxable year.] The tax credit may be claimed as
19 follows:~~

20 (1) For each solar energy system[+] that is used
21 exclusively to heat water and is installed and first



1 placed in service in the State by a taxpayer during
2 the taxable year: thirty-five per cent of the [actual
3 cost or the cap amount determined in subsection (b),
4 whichever is less; or] basis up to the applicable cap
5 amount, which is determined as follows:

6 (A) \$2,000 per solar energy system for a single-
7 family residential property;

8 (B) \$700 per unit per solar energy system for a
9 multi-family residential property; and

10 (C) \$225,000 per solar energy system for a commercial
11 property;

12 (2) For each grid-connected solar energy system that is
13 used primarily to generate electricity:

14 (A) Thirty-five per cent of the basis for grid-
15 connected solar energy systems first placed in
16 service after December 31, 2019, and before
17 January 1, 2021, up to the applicable cap amount
18 under subsection (b); provided that a grid-
19 connected solar energy system that has:

20 (i) An executed customer service contract dated
21 prior to June 30, 2018, and is installed and



1 first placed in service before December 31,
2 2019, shall receive thirty-five per cent of
3 the basis for the grid-connected solar
4 energy system, up to the applicable cap
5 amount of \$500,000 per solar energy system;
6 or

7 (ii) A power purchase agreement dated prior to
8 December 31, 2019, and first placed in
9 service before December 31, 2024, shall
10 receive thirty-five per cent of the basis
11 for the grid-connected solar energy system,
12 up to the applicable cap amount of \$500,000
13 per solar energy system;

14 (B) Thirty per cent of the basis for grid-connected
15 solar energy systems first placed in service
16 after December 31, 2020, and before January 1,
17 2022, up to the applicable cap amount under
18 subsection (b);

19 (C) Twenty-five per cent of the basis for grid-
20 connected solar energy systems first placed in
21 service after December 31, 2021, and before



- 1 January 1, 2023, up to the applicable cap amount
- 2 under subsection (b);
- 3 (D) Twenty per cent of the basis for grid-connected
- 4 solar energy systems first placed in service
- 5 after December 31, 2022, and before January 1,
- 6 2024, up to the applicable cap amount under
- 7 subsection (b);
- 8 (E) Fifteen per cent of the basis for grid-connected
- 9 solar energy systems first placed in service
- 10 after December 31, 2023, and before January 1,
- 11 2025, up to the applicable cap amount under
- 12 subsection (b);
- 13 (F) Ten per cent of the basis for grid-connected
- 14 solar energy systems first placed in service
- 15 after December 31, 2024, and before January 1,
- 16 2026, up to the applicable cap amount under
- 17 subsection (b); and
- 18 (G) Five per cent of the basis for grid-connected
- 19 solar energy systems first placed in service
- 20 after December 31, 2025, and before January 1,



1 2027, up to the applicable cap amount under
2 subsection (b);

3 [~~(2)~~] (3) For each [~~wind powered~~] grid-connected wind
4 energy system[~~+~~], twenty per cent of the [actual cost
5 ~~or the cap amount determined in subsection (b),~~
6 ~~whichever is less;] basis, up to the applicable cap
7 amount, which is determined as follows:~~

8 (A) \$1,500 per grid-connected wind energy system for
9 a single-family residential property; provided
10 that if all or a portion of the grid-connected
11 wind energy system is used to fulfill the
12 substitute renewable energy technology
13 requirement pursuant to section 196-6.5(a)(3),
14 the credit shall be reduced by twenty per cent of
15 the basis or \$1,500, whichever is less;

16 (B) \$700 per unit per grid-connected wind energy
17 system for a multi-family residential property;
18 and

19 (C) \$500,000 per grid-connected wind energy system
20 for a commercial property; provided that a grid-
21 connected wind energy system that has:



- 1 (i) An executed customer service contract dated
2 prior to June 30, 2018, and is installed and
3 first placed in service before December 31,
4 2019, shall receive thirty per cent of the
5 basis for the grid-connected wind energy
6 system, up to the applicable cap amount as
7 described in this subparagraph; or
- 8 (ii) A power purchase agreement dated prior to
9 December 31, 2019, and first placed in
10 service before December 31, 2024, shall
11 receive thirty per cent of the basis for the
12 grid-connected wind energy system, up the
13 applicable cap amount as described in this
14 subparagraph; and
- 15 (4) For each commercial seawater air conditioning system,
16 twenty percent of the basis of connecting the
17 commercial seawater air conditioning system to the
18 seawater air conditioning district cooling system up
19 to the applicable cap amount of \$100,000.
- 20 ~~[provided that multiple]~~ Multiple owners of a single system
21 shall be entitled to a single tax credit; ~~[and]~~ provided



1 ~~[further]~~ that the tax credit shall be apportioned between the
2 owners in proportion to their contribution to the cost of the
3 system.

4 In the case of a partnership, S corporation, estate, or
5 trust, the tax credit allowable is for every eligible renewable
6 energy technology and commercial seawater air conditioning
7 system, as defined in this section, that is installed and placed
8 in service in the State by the entity. The cost upon which the
9 tax credit is computed shall be determined at the entity level.
10 Distribution and share of credit shall be determined pursuant to
11 section ~~[235-110.7(a)-.]~~ 704(b) of the Internal Revenue Code, as
12 amended.

13 (b) ~~[The amount of credit allowed for each eligible~~
14 ~~renewable energy technology system shall not exceed the~~
15 ~~applicable cap amount, which is determined as follows:~~

16 ~~(1) If the primary purpose of the solar energy system is~~
17 ~~to use energy from the sun to heat water for household~~
18 ~~use, then the cap amounts shall be:~~

19 ~~(A) \$2,250 per system for single family residential~~
20 ~~property;~~



- 1 ~~(B) \$350 per unit per system for multi family~~
2 ~~residential property; and~~
- 3 ~~(C) \$250,000 per system for commercial property;~~
- 4 ~~(2) For all other solar energy systems, the cap amounts~~
5 ~~shall be:~~
- 6 ~~(A) \$5,000 per system for single family residential~~
7 ~~property; provided that if all or a portion of~~
8 ~~the system is used to fulfill the substitute~~
9 ~~renewable energy technology requirement pursuant~~
10 ~~to section 196-6.5(a)(3), the credit shall be~~
11 ~~reduced by thirty five per cent of the actual~~
12 ~~system cost or \$2,250, whichever is less;~~
- 13 ~~(B) \$350 per unit per system for multi family~~
14 ~~residential property; and~~
- 15 ~~(C) \$500,000 per system for commercial property; and~~
- 16 ~~(3) For all wind powered energy systems, the cap amounts~~
17 ~~shall be:~~
- 18 ~~(A) \$1,500 per system for single family residential~~
19 ~~property; provided that if all or a portion of~~
20 ~~the system is used to fulfill the substitute~~
21 ~~renewable energy technology requirement pursuant~~



1 ~~to section 196-6.5(a)(3), the credit shall be~~
2 ~~reduced by twenty per cent of the actual system~~
3 ~~cost or \$1,500, whichever is less;~~

4 ~~(B) \$200 per unit per system for multi-family~~
5 ~~residential property; and~~

6 ~~(C) \$500,000 per system for commercial property.]~~

7 The cap amount for each grid-connected solar energy system that
8 is used primarily to generate electricity pursuant to subsection
9 (a)(2) shall be:

10 (1) For eligible systems claiming credits for taxable
11 years 2019 or 2020:

12 (A) \$5,000 per grid-connected solar energy system for
13 a single-family residential property; provided
14 that if all or a portion of the grid-connected
15 solar energy system is used to fulfill the
16 substitute renewable energy technology
17 requirement pursuant to section 196-6.5(a)(3),
18 the credit shall be reduced by twenty-five per
19 cent of the basis or \$2,250, whichever is less;

20 (B) \$700 per unit per grid-connected solar energy
21 system for multi-family residential property; and



1 (C) \$500,000 per grid-connected solar energy system
2 for commercial property; and

3 (2) For eligible systems claiming credits for taxable
4 years 2021 through 2026:

5 (A) \$2,500 per grid-connected solar energy system for
6 a single-family residential property; provided
7 that if all or a portion of the grid-connected
8 solar energy system is used to fulfill the
9 substitute renewable energy technology
10 requirement pursuant to section 196-6.5(a)(3),
11 the credit shall be reduced by twenty-five per
12 cent of the basis or \$1,875, whichever is less;

13 (B) \$700 per unit per grid-connected solar energy
14 system for multi-family residential property; and

15 (C) \$250,000 per grid-connected solar energy system
16 for commercial property.

17 (c) For the purposes of this section:

18 ~~["Actual cost" means costs related to the renewable energy~~
19 ~~technology systems under subsection (a), including accessories~~
20 ~~and installation, but not including the cost of consumer~~
21 ~~incentive premiums unrelated to the operation of the system or~~



1 ~~offered with the sale of the system and costs for which another~~
2 ~~credit is claimed under this chapter.~~

3 ~~"Household use" means any use to which heated water is~~
4 ~~commonly put in a residential setting, including commercial~~
5 ~~application of those uses.]~~

6 "Basis" means costs related to the solar energy, wind
7 energy, or commercial seawater air conditioning system under
8 subsection (a), including accessories, installation, energy
9 storage, and cost of construction to connect to a seawater air
10 conditioning district cooling system, but does not include the
11 cost of consumer incentive premiums unrelated to the operation
12 of the energy system or offered with the sale of the energy
13 system and costs for which another credit is claimed under this
14 chapter. Any cost incurred and paid for the repair,
15 construction, or reconstruction of a structure in conjunction
16 with the installation and placing in service of a solar energy,
17 wind energy, or commercial seawater air conditioning system, such
18 as the reroofing of single-family residential property, multi-
19 family residential property, or commercial property, shall not
20 constitute a part of the basis for the purpose of this section;
21 provided that costs incurred for the physical support of the



1 solar or wind energy system, such as racking and mounting
2 equipment and costs incurred to seal or otherwise return a roof
3 to its pre-installation condition, shall constitute part of the
4 basis for the purposes of this section.

5 The term "basis" used under this section shall be
6 consistent with the use of the term "basis" in section 25D or
7 section 48 of the Internal Revenue Code, as amended.

8 "Commercial seawater air conditioning system" means a
9 building air conditioning system for commercial, office, or
10 residential buildings connected to a seawater air conditioning
11 district cooling system.

12 "First placed in service" has the same meaning as in title
13 26 Code of Federal Regulations section 1.167(a)-11(e)(1), as
14 amended.

15 "Grid-connected" means that the individual or corporate
16 taxpayer has obtained an approved interconnection agreement from
17 an electric utility for the solar or wind energy system and the
18 system is connected and normally operated in parallel with the
19 electric grid.



1 "Renewable energy technology system" means a new system
2 that captures and converts a renewable source of energy, such as
3 solar or wind energy, into:

- 4 (1) A usable source of thermal or mechanical energy;
5 (2) Electricity; or
6 (3) Fuel.

7 "Seawater air conditioning district cooling system" means
8 an identifiable facility, equipment, apparatus, or the like that
9 utilizes naturally occurring cold, deep seawater as its primary
10 source of cooling for production of chilled water for
11 distribution to multiple commercial air conditioning systems.

12 "Solar or wind energy system" means any identifiable
13 facility, equipment, apparatus, or the like that converts solar
14 or wind energy to useful thermal or electrical energy for
15 heating, cooling, or reducing the use of other types of energy
16 that are dependent upon fossil fuel for their generation[-];
17 provided that:

- 18 (1) The total output capacity requirements of the solar or
19 wind energy system shall be:
20 (A) For a single-family residential property, at
21 least five kilowatts per system;



1 (B) For a multi-family residential property, at least
2 0.360 kilowatts per unit per system;

3 (C) For a commercial property, at least one thousand
4 kilowatts per system; and

5 (D) For a wind energy system for commercial property,
6 at least one thousand kilowatts per system; and

7 (2) One of the following applies:

8 (A) The construction, reconstruction, or erection of
9 the solar or wind energy system is completed by
10 the taxpayer; or

11 (B) The solar or wind energy system is acquired by
12 the taxpayer if the original use of the solar or
13 wind energy system commences with the taxpayer.

14 (d) For taxable years beginning after December 31, 2005,
15 the dollar amount of any utility rebate shall be deducted from
16 the ~~[cost]~~ basis of the qualifying system and its installation
17 before applying the state tax credit.

18 (e) The director of taxation shall prepare any forms that
19 may be necessary to claim a tax credit under this section,
20 including forms identifying the technology type of each tax
21 credit claimed under this section~~[, whether for solar or wind.]~~.



1 The director may also require the taxpayer to furnish reasonable
2 information to ascertain the validity of the claim for credit
3 made under this section and may adopt rules necessary to
4 effectuate the purposes of this section pursuant to chapter 91.

5 (f) If the tax credit under this section exceeds the
6 taxpayer's income tax liability, the excess of the credit over
7 liability may be used as a credit against the taxpayer's income
8 tax liability in subsequent years until exhausted, unless
9 otherwise elected by the taxpayer pursuant to subsection (g) or
10 (h). All claims for the tax credit under this section,
11 including amended claims, shall be filed on or before the end of
12 the twelfth month following the close of the taxable year for
13 which the credit may be claimed. Failure to comply with this
14 subsection shall constitute a waiver of the right to claim the
15 credit.

16 (g) For solar energy systems, a taxpayer may elect to
17 reduce the eligible credit amount by thirty per cent and if this
18 reduced amount exceeds the amount of income tax payment due from
19 the taxpayer, the excess of the credit amount over payments due
20 shall be refunded to the taxpayer; provided that tax credit
21 amounts properly claimed by a taxpayer who has no income tax



1 liability shall be paid to the taxpayer; and provided further
2 that no refund on account of the tax credit allowed by this
3 section shall be made for amounts less than \$1.

4 The election required by this subsection shall be made in a
5 manner prescribed by the director on the taxpayer's return for
6 the taxable year in which the system is installed and placed in
7 service. A separate election may be made for each separate
8 system that generates a credit. An election once made is
9 irrevocable.

10 (h) Notwithstanding subsection (g), for any renewable
11 energy technology system, an individual taxpayer may elect to
12 have any excess of the credit over payments due refunded to the
13 taxpayer, if:

14 (1) All of the taxpayer's income is exempt from taxation
15 under section 235-7(a)(2) or (3); or

16 (2) The taxpayer's adjusted gross income is \$20,000 or
17 less (or \$40,000 or less if filing a tax return as
18 married filing jointly);

19 provided that tax credits properly claimed by a taxpayer who has
20 no income tax liability shall be paid to the taxpayer; and



1 provided further that no refund on account of the tax credit
2 allowed by this section shall be made for amounts less than \$1.

3 A [~~husband and wife~~] married couple who do not file a joint
4 tax return shall only be entitled to make this election to the
5 extent that they would have been entitled to make the election
6 had they filed a joint tax return.

7 The election required by this subsection shall be made in a
8 manner prescribed by the director on the taxpayer's return for
9 the taxable year in which the system is installed and placed in
10 service. A separate election may be made for each separate
11 system that generates a credit. An election once made is
12 irrevocable.

13 (i) No taxpayer shall be allowed a credit under this
14 section for the portion of the renewable energy technology
15 system required by section 196-6.5 that is installed and first
16 placed in service on any newly constructed single-family
17 residential property authorized by a building permit issued on
18 or after January 1, 2010.

19 (j) The tax credit under this section shall be construed
20 in accordance with Treasury Regulations and judicial



1 interpretations of similar provisions in sections 25D, 45, and
2 48 of the Internal Revenue Code, as amended.

3 (k) A planned community association, condominium
4 association of apartment owners, or cooperative housing
5 corporation may claim the tax credit under this section in its
6 own name for systems or facilities placed in service and located
7 on common areas.

8 (l) No credit under this section shall be allowed to any
9 federal, state, or local government or any political
10 subdivision, agency, or instrumentality thereof.

11 (m) No credit under this section shall be authorized for
12 taxable years ending after December 31, 2026.

13 [~~(j)~~] (n) To the extent feasible, using existing resources
14 to assist the energy-efficiency policy review and evaluation,
15 the department shall assist with data collection on the
16 following for each taxable year:

17 (1) The number of renewable energy technology or
18 commercial seawater air conditioning systems that have
19 qualified for a tax credit during the calendar year
20 by:

21 (A) Technology type; and



- 1 (B) Taxpayer type (corporate and individual); and
2 (2) The total cost of the tax credit to the State during
3 the taxable year by:
4 (A) Technology type; and
5 (B) Taxpayer type.

6 [~~(h)~~] (o) This section shall apply to eligible renewable
7 energy technology systems that are installed and placed in
8 service on or after July 1, 2009."

9 SECTION 5. Section 241-4.6, Hawaii Revised Statutes, is
10 amended to read as follows:

11 "§241-4.6 Renewable energy technologies [~~(h)~~] and commercial
12 seawater air conditioning system income tax credit. The
13 renewable energy technologies and commercial seawater air
14 conditioning system income tax credit provided under section
15 235-12.5 shall be operative for this chapter for taxable years
16 beginning after December 31, 2002; provided that the system was
17 installed after June 30, 2003."

18 **PART IV**

19 SECTION 6. If any provision of this Act, or the
20 application thereof to any person or circumstance, is held
21 invalid, the invalidity does not affect other provisions or



1 applications of the Act that can be given effect without the
2 invalid provision or application, and to this end the provisions
3 of this Act are severable.

4 SECTION 7. This Act does not affect rights and duties that
5 matured, penalties that were incurred, and proceedings that were
6 begun before its effective date.

7 SECTION 8. Statutory material to be repealed is bracketed
8 and stricken. New statutory material is underscored.

9 SECTION 9. This Act shall take effect on July 1, 2050;
10 provided that part III shall apply to taxable years beginning
11 after December 31, 2019; provided further that section
12 235-12.5(a)(1)(B), (a)(2)(A), (a)(3)(B), (a)(3)(C), and (b)(2),
13 Hawaii Revised Statutes, shall take effect on July 1, 2050.



Report Title:

Renewable Energy; Definition; Public Utilities; Renewable Energy Technologies Income Tax Credit; Commercial Seawater Air Conditioning System

Description:

Broadens the definition of "renewable energy" as used in the public utilities commission law to include other self-replenishing non-fossil fuel, non-nuclear resources. Amends the renewable energy technologies income tax credit by including commercial seawater air conditioning systems. (Proposed SD1)

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