

HOUSE BILL 1186

C5

(2lr2045)

ENROLLED BILL

— Economic Matters/Finance —

Introduced by **Delegates Jameson, Hucker, Afzali, Barkley, Barve, Beitzel, Carr, Eckardt, Elliott, Feldman, Jacobs, Krebs, Love, McComas, Murphy, Myers, Norman, Otto, Serafini, Stein, Stocksdale, and Wood**

Read and Examined by Proofreaders:

Proofreader.

Proofreader.

Sealed with the Great Seal and presented to the Governor, for his approval this _____ day of _____ at _____ o'clock, _____ M.

Speaker.

CHAPTER _____

1 AN ACT concerning

2 **Renewable Energy Portfolio Standard – Renewable Energy**
3 **Credits – Geothermal Heating and Cooling**

4 FOR the purpose of specifying that energy generated from a geothermal heating and
5 cooling system is eligible for inclusion in meeting the renewable energy portfolio
6 standard; entitling a certain person or entity to receive a renewable energy
7 credit under certain circumstances; ~~specifying the method by which energy~~
8 ~~generation and consumption shall be measured~~ specifying the methods by which
9 the Commission shall determine the energy savings of geothermal heating and
10 cooling systems; requiring geothermal heating and cooling system installation
11 to comply with certain standards; providing that energy generated from a
12 geothermal Tier 1 renewable source is eligible for inclusion in meeting a certain
13 standard only if the source is connected with the distribution grid serving

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.

Underlining indicates amendments to bill.

~~Strike out~~ indicates matter stricken from the bill by amendment or deleted from the law by amendment.

Italics indicate opposite chamber/conference committee amendments.



1 Maryland; defining a certain term; altering the definition of a certain term;
 2 providing for the application of this Act; and generally relating to geothermal
 3 heating and cooling systems.

4 BY repealing and reenacting, without amendments,
 5 Article – Public Utilities
 6 Section 7–701(a)
 7 Annotated Code of Maryland
 8 (2010 Replacement Volume and 2011 Supplement)

9 BY adding to
 10 Article – Public Utilities
 11 Section 7–701(c–1) and 7–704(h)
 12 Annotated Code of Maryland
 13 (2010 Replacement Volume and 2011 Supplement)

14 BY repealing and reenacting, with amendments,
 15 Article – Public Utilities
 16 Section 7–701(l) and 7–704(a)(2)(i)1.
 17 Annotated Code of Maryland
 18 (2010 Replacement Volume and 2011 Supplement)

19 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF
 20 MARYLAND, That the Laws of Maryland read as follows:

21 **Article – Public Utilities**

22 7–701.

23 (a) In this subtitle the following words have the meanings indicated.

24 (C–1) “GEOTHERMAL HEATING AND COOLING SYSTEM” MEANS A SYSTEM
 25 THAT:

26 (1) EXCHANGES THERMAL ENERGY FROM GROUNDWATER OR A
 27 SHALLOW GROUND SOURCE TO GENERATE THERMAL ENERGY THROUGH A
 28 GEOTHERMAL HEAT PUMP OR A SYSTEM OF GEOTHERMAL HEAT PUMPS
 29 INTERCONNECTED WITH ANY GEOTHERMAL EXTRACTION FACILITY THAT IS:

30 (I) A CLOSED LOOP OR A SERIES OF CLOSED LOOP SYSTEMS
 31 IN WHICH FLUID IS PERMANENTLY CONFINED WITHIN A PIPE OR TUBING AND
 32 DOES NOT COME IN CONTACT WITH THE OUTSIDE ENVIRONMENT; OR

33 (II) AN OPEN LOOP SYSTEM IN WHICH GROUND OR SURFACE
 34 WATER IS CIRCULATED IN AN ENVIRONMENTALLY SAFE MANNER DIRECTLY

1 INTO THE FACILITY AND RETURNED TO THE SAME AQUIFER OR SURFACE WATER
2 SOURCE;

3 (2) MEETS OR EXCEEDS THE CURRENT FEDERAL ENERGY STAR
4 PRODUCT SPECIFICATION STANDARDS;

5 (3) REPLACES OR DISPLACES INEFFICIENT SPACE OR WATER
6 HEATING SYSTEMS WHOSE PRIMARY FUEL IS ELECTRICITY OR A NONNATURAL
7 GAS FUEL SOURCE;

8 (4) REPLACES OR DISPLACES INEFFICIENT SPACE COOLING
9 SYSTEMS THAT DO NOT MEET FEDERAL ENERGY STAR PRODUCT
10 SPECIFICATION STANDARDS;

11 (5) IS MANUFACTURED, INSTALLED, AND OPERATED IN
12 ACCORDANCE WITH APPLICABLE GOVERNMENT AND INDUSTRY STANDARDS;
13 AND

14 (6) DOES NOT FEED ELECTRICITY BACK TO THE GRID.

15 (1) "Tier 1 renewable source" means one or more of the following types of
16 energy sources:

17 (1) solar energy, including energy from photovoltaic technologies and
18 solar water heating systems;

19 (2) wind;

20 (3) qualifying biomass;

21 (4) methane from the anaerobic decomposition of organic materials in
22 a landfill or wastewater treatment plant;

23 (5) geothermal, INCLUDING ENERGY GENERATED THROUGH
24 GEOTHERMAL EXCHANGE FROM OR THERMAL ENERGY AVOIDED BY,
25 GROUNDWATER OR A SHALLOW GROUND SOURCE;

26 (6) ocean, including energy from waves, tides, currents, and thermal
27 differences;

28 (7) a fuel cell that produces electricity from a Tier 1 renewable source
29 under item (3) or (4) of this subsection;

1 (8) a small hydroelectric power plant of less than 30 megawatts in
2 capacity that is licensed or exempt from licensing by the Federal Energy Regulatory
3 Commission;

4 (9) poultry litter-to-energy;

5 (10) waste-to-energy; and

6 (11) refuse-derived fuel.

7 7-704.

8 (a) (2) (i) 1. Except as provided in subsubparagraph 2 of this
9 subparagraph, energy from a Tier 1 renewable source under § 7-701(l)(1), (5), (9), (10),
10 or (11) of this subtitle is eligible for inclusion in meeting the renewable energy portfolio
11 standard only if the source is connected with the electric distribution grid serving
12 Maryland.

13 **(H) (1) ENERGY FROM A GEOTHERMAL HEATING AND COOLING**
14 **SYSTEM IS ELIGIBLE FOR INCLUSION IN MEETING THE RENEWABLE ENERGY**
15 **PORTFOLIO STANDARD.**

16 **(2) A PERSON SHALL RECEIVE A RENEWABLE ENERGY CREDIT**
17 **EQUAL TO THE AMOUNT OF ENERGY, CONVERTED FROM BTUS TO**
18 **KILOWATT-HOURS, THAT IS GENERATED BY A GEOTHERMAL HEATING AND**
19 **COOLING SYSTEM FOR SPACE HEATING AND COOLING OR WATER HEATING IF**
20 **THE PERSON:**

21 **(I) OWNS AND OPERATES THE SYSTEM;**

22 **(II) LEASES AND OPERATES THE SYSTEM; OR**

23 **(III) CONTRACTS WITH A THIRD PARTY WHO OWNS AND**
24 **OPERATES THE SYSTEM.**

25 ~~**(3) THE TOTAL AMOUNT OF ENERGY GENERATED AND CONSUMED**~~
26 ~~**FOR A GEOTHERMAL HEATING AND COOLING SYSTEM SHALL BE MEASURED BY**~~
27 ~~**AN ONSITE METER FOR THE SYSTEM'S COEFFICIENT OF PERFORMANCE.**~~

28 **(3) TO DETERMINE THE ENERGY SAVINGS OF A GEOTHERMAL**
29 **HEATING AND COOLING SYSTEM FOR A RESIDENCE, THE COMMISSION SHALL:**

30 **(I) IDENTIFY AVAILABLE INTERNET-BASED ENERGY**
31 **CONSUMPTION CALCULATORS DEVELOPED BY THE GEOTHERMAL HEATING AND**
32 **COOLING INDUSTRY;**

1 **(II) COLLECT THE FOLLOWING DATA PROVIDED IN THE**
2 **RENEWABLE ENERGY CREDIT APPLICATION THAT:**

3 **1. DESCRIBES THE NAME OF THE APPLICANT AND**
4 **THE ADDRESS AT WHICH THE GEOTHERMAL HEATING AND COOLING SYSTEM IS**
5 **INSTALLED; AND**

6 **2. PROVIDES THE ANNUAL BTU ENERGY SAVINGS**
7 **ATTRIBUTABLE TO HOME HEATING, COOLING, AND WATER HEATING; AND**

8 **(III) IN DETERMINING THE ANNUAL AMOUNT OF RENEWABLE**
9 **ENERGY CREDITS AWARDED FOR THE GEOTHERMAL HEATING AND COOLING**
10 **SYSTEM, CONVERT THE ANNUAL BTUS INTO ANNUAL MEGAWATT HOURS.**

11 **(4) TO DETERMINE THE ENERGY SAVINGS OF A NONRESIDENTIAL**
12 **GEOTHERMAL HEATING AND COOLING SYSTEM, THE COMMISSION SHALL:**

13 **(I) USE THE GEOTHERMAL HEATING AND COOLING**
14 **ENGINEERING TECHNICAL SYSTEM DESIGNS PROVIDED WITH THE RENEWABLE**
15 **ENERGY CREDIT APPLICATION; AND**

16 **(II) IN DETERMINING THE ANNUAL AMOUNT OF RENEWABLE**
17 **ENERGY CREDITS AWARDED FOR THE GEOTHERMAL HEATING AND COOLING**
18 **SYSTEM, CONVERT THE ANNUAL BTUS INTO ANNUAL MEGAWATT HOURS.**

19 **(4) (5) A GEOTHERMAL HEATING AND COOLING SYSTEM SHALL**
20 **BE INSTALLED IN ACCORDANCE WITH APPLICABLE STATE WELL CONSTRUCTION**
21 **AND LOCAL BUILDING CODE STANDARDS.**

22 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall apply only
23 to geothermal heating and cooling systems that are commissioned on or after ~~July 1,~~
24 ~~2012~~ January 1, 2013.

25 SECTION 3. AND BE IT FURTHER ENACTED, That this Act shall take effect
26 October 1, 2012.