

## Chapter 557

(House Bill 1186)

AN ACT concerning

### Renewable Energy Portfolio Standard – Renewable Energy Credits – Geothermal Heating and Cooling

FOR the purpose of specifying that energy generated from a geothermal heating and cooling system is eligible for inclusion in meeting the renewable energy portfolio standard; entitling a certain person or entity to receive a renewable energy credit under certain circumstances; ~~specifying the method by which energy generation and consumption shall be measured~~ specifying the methods by which the Commission shall determine the energy savings of geothermal heating and cooling systems; requiring geothermal heating and cooling system installation to comply with certain standards; *providing that energy generated from a geothermal Tier 1 renewable source is eligible for inclusion in meeting a certain standard only if the source is connected with the distribution grid serving Maryland*; defining a certain term; altering the definition of a certain term; providing for the application of this Act; and generally relating to geothermal heating and cooling systems.

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

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

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

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

#### Article – Public Utilities

7-701.

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

**(C-1) “GEOTHERMAL HEATING AND COOLING SYSTEM” MEANS A SYSTEM THAT:**

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

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

**(II) AN OPEN LOOP SYSTEM IN WHICH GROUND OR SURFACE WATER IS CIRCULATED IN AN ENVIRONMENTALLY SAFE MANNER DIRECTLY INTO THE FACILITY AND RETURNED TO THE SAME AQUIFER OR SURFACE WATER SOURCE;**

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

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

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

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

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

(l) “Tier 1 renewable source” means one or more of the following types of energy sources:

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

- (2) wind;
- (3) qualifying biomass;
- (4) methane from the anaerobic decomposition of organic materials in a landfill or wastewater treatment plant;
- (5) geothermal, **INCLUDING ENERGY GENERATED THROUGH GEOTHERMAL EXCHANGE FROM OR THERMAL ENERGY AVOIDED BY, GROUNDWATER OR A SHALLOW GROUND SOURCE;**
- (6) ocean, including energy from waves, tides, currents, and thermal differences;
- (7) a fuel cell that produces electricity from a Tier 1 renewable source under item (3) or (4) of this subsection;
- (8) a small hydroelectric power plant of less than 30 megawatts in capacity that is licensed or exempt from licensing by the Federal Energy Regulatory Commission;
- (9) poultry litter-to-energy;
- (10) waste-to-energy; and
- (11) refuse-derived fuel.

7-704.

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

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

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

(I) OWNS AND OPERATES THE SYSTEM;

(II) LEASES AND OPERATES THE SYSTEM; OR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Approved by the Governor, May 22, 2012.**